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1926.

THE PSYCHOSES in relation to the EXERCISING
OF THE REPRODUCTIVE FUNCTION IN WOMEN.

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THE PSYCHOSES IN RELATION TO THE EXERCISING OF THE
REPRODUCTIVE FUNCTION IN WOMEN.

Introduction.

'Every union of the sexes, far from assuring immortality to lovers, is an evidence of death, and we should never know love, were we destined to live for ever.'¹

Man does not live for ever. Nature demands the continuance of the current of life, so the invention of sex with its attendant phenomena and its ultimate end in reproduction became a necessity. The sex instinct is Nature's provision for the effecting of the perpetuation of life, and, incidentally, it is the strongest motive of individual existence and a prime mover of all human activity. It is the *raison d'être* of existence and is essential to the universal scheme of evolution.

In imaginative literature, in the symbolism of painting and sculpture, the sublimations of religion, the conative aspect of the sex instinct is seen, while the '*joie de vivre*' of romantic writers might be accurately and scientifically translated into the '*effervescing libido*.'

'*Propter uterum solum mulier est quod est*' was

¹. At the Sign of the Reine Pédaugue. Anatole France.

the old saying, but it might be made more charitably comprehensive, 'Propter libido solum genus homo est quod est.'

That the continuance of personal life and the functioning of reproduction are mutually antagonistic has long been observed by biologists. 'The reproductive act is a great exhauster of energy. It is always, and of necessity, inimical to life. In many lower animals it is, ipso facto, destructive to life.'¹ Biologically speaking, when the aim of reproduction is fulfilled, individual existence should either cease or approximate to a close. Thus the dominant rôle of reproduction is pre-eminently the key to a full understanding of the lives of organisms, their physiology, psychology, and psychopathology.

Although the functioning of reproduction necessitates the activities, mental and physical, of both sexes, it is women entirely who bear the burden of procreation and whose organs are specially adapted to fulfill this function. And herein lies the great divergence of female and male sexuality. 'For woman, man, is only the means, the end is always the child,' says Schopenhauer, but fortunately there is a profound relation of the sex instinct with the parental. This innate and desirable relationship, inspiring tender and protective feeling, secures the active co-operation of the male, first in the care of the parturient female and later in the care and

1. Text Book of Insanity, Mercier.

upbringing of the offspring. So that the cynicism of M. de Staël 'L'amour n'est qu'une épisode de la vie de l'homme; c'est l'histoire tout entière de la femme' is but a half truth.

Human existence consists of a series of adjustments to internal stimuli, and adaptations to external situations. Certain reactions are considered to conform with the normal (i.e. what is most generally accepted). Some individuals are unable or unwilling to conform or react in the accepted fashion, and if their mal-adjustment occurs or rather shows itself in the realms of conduct, such individuals are regarded as mentally disordered.

It is naturally at the great epochal or periodical phases in the life history that most complicated, and, to some, the most difficult adaptations must occur. It is then that the liability to faulty or asocial reactions manifests itself, - these in turn constituting the phenomena of mental disease.

During adolescence when the sexual function is developing, during the actual reproductive period of women and during the waning of that function, epochal mal-adjustments may take place when the stress of physiological and psychological change detects the unfit.

As in women the events of sexual life are more dramatic in onset, more arduous in their carrying out, more sudden in their cessation, it is not surprising that the epochal morbid mental reactions are more marked than in men.

'Every phase of the sexual life of women, from the threshold of puberty to the extinction of the sexual activity, the first appearance of menstruation, the complete development of the sexual organs, conception, pregnancy, parturition, and the puerperium, finally the involutinal process, which accompanies the cessation of menstruation, every one of these sexual changes entails consecutive physiological changes in the individual organs, in the functions of the cardio-vascular apparatus, of the brain and the nerves, of the skin and sense organs, in the process of digestion and general metabolism.'¹ Again, 'the stress of early womanhood when the reproductive functions are in fullest activity and of late womanhood when they are ceasing, produces a profound organic fermentation, psychic as well as physical, which is not paralleled in the life of man.'²

It is in relation to the mental disorders that arise directly in association with the exercising of the reproductive function in women that this thesis is written, that is to say, it is concerned with the disorders that arise during the gestational and subsequent puerperal and lactational periods. Thus it will be necessary to emphasise certain physiological and psychological factors in their special relation to the reproductive function.

The characteristic of the female sex being reproductive, it is natural that her whole organic and psychic variability depends on this. Freudian

1. Sexual Life of Woman, Kisch.

2. Sexual Impulse, Havelock Ellis.

psychology demonstrates the complex development of the sex instinct from the polymorph perverse stage of early life to the dawning of the normal heterosexuality with puberty and the commencement of menstruation.

The mental state during menstruation is well summarised by Clouston: 'It has a psychology of its own, of which the main features are a slight irritability or tendency towards lack of mental inhibition just before the process commences each month, a slight diminution of energy or tendency to mental paralysis and depression during the first day or two of its continuance, and a very considerable excess of energising power and excitation of feeling during the first week or ten days after it has entirely ceased, the last phase being coincident with woman's periods of highest conceptive power and keenest generative nisis.'¹

The physical and mental changes are not entirely dependent on the sexual organs, but are closely co-related with the endocrine glands and their hormones. There is a harmonious inter-relation between the reproductive organs and the endocrine system. 'Propter secretiones internas totas, mulier est quod est,' is another variation containing much physiological truth.

As women pass towards sexual maturity adjustments are continually taking place. Tradition, convention and economic conditions do not allow of the

1. Mental Diseases, Clouston.

gratification of the awakened instinct, though the recreations and life of modern civilisation tend to stimulate it. Consequently a considerable degree of repression is necessary, and this may play its part in later neurosis or psychosis.

Women's attitude to sexuality has been studied mainly by men of the literary species, and opinions have varied greatly, from the Schopenhauerian conception of woman as a mere reproductive convenience to the more idealistic conception of George Bernard Shaw.¹ The claims of the family, woman's function as a mother, the clash with her desires for self-realisation, have long been themes for literary composition, more particularly dramatic composition. Interesting contrasts are provided by Nora of 'A Doll's House' and Ann of 'Man and Superman'. Nora to find her own self-realisation believed she owed a duty to herself, so she unburdened herself of husband and children. Ann, on the other hand, entangled Jack Tanner in the toils of the life force in her desire to find self-realisation in her unborn children.

One thing is certain, life goes on, though one cannot agree always with Dr. Pangloss of Voltaire's 'Candide', 'Everything is for the best in this best of all possible worlds.'

1. Treatise on Parents and Children, G. Bernard Shaw.

When pregnancy occurs a new set of organs and functions of dominant importance have to be added and correlated with those already in existence. The bodily economy must be modified and adapted, and it is evident that a process of equilibration so delicate and far-reaching may be upset easily if the co-ordinating mechanism of the central nervous system is unstable or lacking in vitality.

Among the many bodily changes to be noted are those associated with the endocrines. The thyroid gland is frequently enlarged, and there is no doubt that pregnancy makes an increased demand on that organ. Changes in the pituitary or suprarenals are difficult to detect during life, but the physiological effect of extracts of these glands is well known. The corpus luteum plays a part, but that, too, is a matter for further investigation. The general increased susceptibility and the reflex excitability of the whole nervous system, at times bordering on the pathological, are both observed facts.

In brief, a pronounced series of changes, endocrinal, metabolic and nervous, must occur in the female body. Change necessitates activity, the display or redistribution of energy with the end in view of establishing a new harmony of function. The human body, like the mind, is naturally conservative and change must create a certain disturbance. Also there must be an adequate stimulus for this change,

and this would appear to be provided for by the hormones of the endocrine glands.

These physiological adjustments render the pregnant woman subject to physical disorder, and may provide an organic background for the eruption of the morbid mental states that may occur during the gestational period.

Then comes the great physical feat of labour and birth, when again there must be physiological adjustments. The nutritive supply to the uterus must be transferred to the breasts. There is the associative shock of birth, the possible loss of blood and sepsis, all making special calls on the maternal organism. It is a period of great physiological stress reacting profoundly on the nervous system. This is followed by the lactational period when the body endeavours to adjust itself again to the non-pregnant state. This phase may be associated with exhaustion, toxic absorption, and a special liability to intercurrent disease such as Tuberculosis.

It is an observed fact that pregnancy is a strain which finds out physical defects and often accentuates them. Similarly tendencies to mental abnormalities may become obvious for the first time or may be exaggerated.

PSYCHOLOGY of GESTATIONAL STATE.

In considering the mental attitude of women towards pregnancy one must first consider the quality of

the mental furniture dependent upon inborn germinal material, especially with regard to durability, emotivity, and the moral and aesthetic sentiments. Then there is the social and personal environment, and nowhere are there greater conventions, taboos and caste traditions observed, than in relation to reproduction. The individual attitude will be the complex resultant of the mental diathesis, - with the sex instinct well in the foreground, - and the social and personal environment. The variability of the maternal instinct, the actual desire to bear children, the economic question, conception occurring in the security of marriage or as a result of a clandestine liaison, the state of the physical health, all these combine to cause either a cheerful expectancy or an apprehensive dread. The question of primiparity or the novelty of the reproductive experience is of obvious importance, and the attitude to subsequent pregnancies will greatly depend on this. To the primipara it is an unknown experience, and the unknown is always an inspirer of fear. To this must be added the concomitant physical discomforts.

'The connection between fear and the fact of birth is a very intimate one. Birth with its attendant profound changes, manifold dangers, and discomforts becomes as it were the prototype of all situations of a threatening or disquieting character, in which life itself appears to be menaced.'¹

1. Psycho-Analytic Study of the Family. Flugel.

The association of fear with birth may be causally related to the development of subsequent neurosis or psychosis. In conclusion, it seems unlikely that there is ever any typical psychology of gestation; but that, keeping the preceding considerations in mind, each woman will react individually according to her native mind stuff, and to the special circumstances in which she finds herself.

SUMMARY of INTRODUCTION.

The essence of the biological life of woman is a series of sexual adjustments dependent upon the changes that occur in the actual sexual organs and the closely related endocrines.

Coincident with this is her psychological relation to her human and material environment, which must, *pari-passu*, seek to harmonise with the corresponding physical adjustment.

During the actual functioning of the sexual organs the adjustments, both physical and psychical, are dynamic in nature and far-reaching in effect.

The actual mental attitude to pregnancy is a complex and individual one, with but one common factor, fear, in the background of the mind. Adjustments require the display or redistribution of energy, consequently in a brain below the average germinally, or, from disease, faulty, inadequate adjustments may arise. These reactions constitute the mental disorders which characterise the active period of the reproductive functioning.

HISTORICAL.

'Life is short and the Art long; the occasion fleeting; experience fallacious and judgment difficult.'

Thus does Hippocrates, the reflective philosopher and practised physician, epitomise the Art of Medicine.

It was in his writings that the conception of Insanity as a disease dependent on physical defects was first elaborated. He described the states of Melancholia and Mania, and made frequent references to the delirium association with febrile states, most notably those arising subsequent to childbirth.

Case XIV. Epidemics III.

'In Cyzicus a woman who had brought forth twin daughters, after a difficult labour and in whom the lochial discharge was insufficient, was seized with an acute fever attended with pain and heaviness of the head and neck and insomnelency. She was silent, sullen, disobedient; urine thin and devoid of colour. On the sixth day talked much incoherently and had no sleep. About the eleventh day was seized with wild delirium, and again became collected. On the fourteenth frequent convulsions and death. Phrenitis.'

Similarly Case XII. of the woman who lodged near the Liar's Market.

In twentieth century nomenclature these are recognised as the toxic confusional psychoses, caused by puerperal septicaemia.

Hippocrates believed that the delirium or mania was produced by a metastasis of the lochia to the head, breasts and lungs.

One of his aphorisms (sect. V.40) states, - 'In women blood collected in the breasts indicates madness.'

In his books 'Of the Nature of Woman' and 'Female Diseases' Hippocrates reveals how the life of woman, in its physiology and pathology, is overshadowed by the uterine function.

The emotional instability of woman during the pregnant state is discussed by Aristotle, the Macedonian and student of Plato, in his 'Historia Animalium'.

'Women in pregnancy are a prey to all sorts of longings and to rapid changes of mood, and some folks call this 'ivy sickness'; and with the mothers of female infants the longings are more acute and they are less contented when they have got what they desired.' Book VII 4 (20).

In the spurious Aristotelian works on Generation there is much talk on the mental abnormalities of gestation, but the explanations are fantastic, illogical and ill-considered.

AULUS CORNELIUS CELSUS (50 A.D.), the Latin physician, writing on the several kinds of madness, mingles

humanism and science with ignorance and barbarity. He recommends that the insane should be more often humoured than contradicted, but in some cases, 'hunger, chains and stripes are to be utilised'. He, too, mentions the febrile delirium of puerperal fevers, where patients lose their judgment and talk incoherently, which though it be not trifling, yet is not equally dangerous for it is commonly of short duration'.

ARETAEUS (160 A.D.), the Cappadocian, who from his neglect of references to Galen, is thereby concluded to be his contemporary and rival, had bizarre notions of the female organ of generation.

'The womb is altogether erratic. It delights also in fragrant smells, and advances towards them; it has an aversion to foetid smells and flies from them; and on the whole the womb is like an animal within an animal'.

Again, - 'the uterus in women is beneficial for purgation and parturition, but it is the common source of innumerable and bad diseases'. Ch. XI., Book II.

He describes Melancholia and Mania, and is inclined to believe that Melancholia is the commencement of and a part of Mania. He is thus the forerunner of Kraepelin. He recognises too, that such poisons as Hyoscyamus and Mandragora produce a delirium and excitement almost indistinguishable from Mania.

In his treatment of Melancholia he recommends us to 'open the median vein at the right elbow, so that there

may be a seasonable flow from the Liver, for this viscus is the fountain of blood and source of formation of the bile both which are the pabulum of Malancholia'.

Nevertheless, his general recommendations for mental therapy are rational and scientific. Moral and hygienic measures are to be adopted.

GALEN, born in Pergamos, studied at Smyrna, Corinth, Alexandria and Rome. He was a voluminous writer, a commentator and vindicator of the Hippocratic teachings. In his book of 'the knowledge and Cure of mental Affections' he showed considerable psychological insight. He emphasised the importance of correct education which he considered analagous to the training of plants. The mind was dependent on the temperament of the body. The peripatetic character of the uterus was always insisted on and its relation to hysteria defined.

JEAN BAPTISTE van HELMONT, (1577-1644), physician, chemist, and mysticist, believed that the brain was the organ of mind and that the soul was to be found there. He exhibits a Strindbergian attitude to women. The womb is their governing faculty, 'Its fury varieth not but by its tragedies; wherein it abuseth its power, and sporteth by a monarchial liberty over the entire body.' And again, 'Surely it lifteth me to contemplate of a power in the womb, as it were of a most powerful blas of the stars, turning and overturning all things upwards and downwards. For the womb hath its own government and hath

kept it entire over the whole body, yea, always hath cruelly exercised it unto the foretroubling of the sex that is to be pitied'.

He notes the many conceits of the woman with child, the hysterical convulsions of virgins and the hypochondriacal melancholia of women whose sexual function is waning. His conclusions on the fair sex are thus, - 'She is miserable, therefore, who layes under such a command; for truly not only every part doth hearken to the womb, but the violent commands of the mad womb do punish the body of woman together with her life'.

Appropriately he ends his discourse on woman with a prayer; 'Have pity, on Physicians, that hereafter they may take a meet care of the more harmless and miserable sex and may search after due Remedies. Amen, Ah! I wish Amen.'

His criticism of the medical forefathers is enlightening. His scorn is directed to Galen, whom he advises no wife to obey, but he considers that Hyppocrates has less of prattle and more of candour, science and heavenly light.

BOERHAAVE, (1668-1738), the physician and orientalist, whose writings were translated into all European languages and even into Arabic, records in his aphorisms the depraved and untoward inclinations of the pregnant woman and recommends blood letting in proportion to the time of the child and the plethora.

In his Diseases of Women he describes how 'whilst

the ferous milky nourishment is making its way from the now constricted vessels of the womb towards the breasts there often arises a small fever, at whose coming the cleansings are sometimes entirely stopped, whence numberless symptoms including phrensies and delirium arise.'

JOHANN GEORG ZIMMERMAN, (1728-1795), the Swiss physician and philosopher, in his 'Experiences in Physic', describes how he 'attended a young lady of very acute and penetrating genius who had experienced four attacks of Insanity before he saw her. She became well, and in this situation became pregnant, was brought to bed, and was so weakened by her lying-in as to be attacked by convulsions. An ignorant physician prescribed bleeding, warm baths, purgatives and tea, and kept the convulsions up for a year. Then she fell into a deep melancholy and after this became wild and frantic and then again returned to melancholy. Eventually she relapsed into the most horrible madness'.

He is an interesting and sound descriptive writer and psychologist. 'The body is affected by the troubles of the mind and the mind suffers from the indispositions of the body'.

He discusses the results of excesses.

'If the senses corrupt the mind, the latter in its turn may be said to deprave the senses, when we indulge a cupidity that proceeds altogether from the imagination'.

He concludes these reflections with the remark, 'We are always strong enough to do what we have the inclination to do'.

He discourses on the passions which are dependent on temperament and are the causes of formidable diseases.

'Love in the female subject sometimes excites 'furor uterinus' when the passion is irremediable'.

PINEL, (1745-1826), the Chief Physician at the Salpêtrière in his 'Treatise on Insanity' discusses the importance of moral causes in insanity. He stresses the conflict that arises between principles of Religion, Morality, Education and the Passions.

JEAN ETIENNE ESQUIROL, (1772-1840), Pinel's successor at the Salpêtrière in his 'Treatise on Insanity' gives a complete and accurate description of the mental alienation of those recently confined and of nursing women.

One twelfth of the women admitted to the Salpêtrière were insane under these circumstances. Many became insane during pregnancy. 'If this ought to be ranked among physical causes in some cases, there are others where it is set in action by moral ones. Shame, chagrin, and fear are then the true causes of the malady.'

He writes too of the 'delirium of those, who, in phrensy, destroy the children to whom they have just given birth. False shame, perplexity, fear, misery and crime do not always lead to infanticide. Delirium also directs

their sacrilegious hands. Esquirol notes how the wealthy are more liable to become insane after confinement, whilst the poor show mental alienation when weaning. He stresses the importance of diseased heredity, previous attacks and physical and moral causes. He appends accurate clinical records of fifteen typical cases. In treatment he recommends hot baths, enemata and all the aids of hygiene as well as moral suasion.

With regard to prognosis he states, 'mental alienation following confinement is generally cured, if the predisposition is not too energetic'.

Contemplation of these historical conceptions of insanity from Hippocrates to Esquirol reveals certain characteristics of the human mind. Descriptions are accurate and penetrating. Nevertheless, they are influenced by certain preconceptions. These observers only saw and described what their mental faculties had been trained to observe.

In the deductions therefrom the truth was not found because of the desire to corroborate some preformed opinion, or at least, not to injure some favourite conception. The fundamental ideas were accurate; it was only the form which at times assumed a fantastic and bizarre appearance.

An idea is of value only because of its form, and to give a lucid and explanatory form to an old idea is

the object of psychology and philosophy. This is the only intellectual creation possible to humanity.

The novelties of modern psychology may be regarded as explanatory forms of certain fundamental ideas. They are phrases convenient and contemporary to our modern knowledge. In time these too will pass into history.

This section may be fitly terminated by a quotation from Byron. In poetic form it indicates the life of woman.

'The very first

Of human life must spring from woman's breast;

Your first small words are taught you from her lips,

Your first tears quenched by her, and your last sighs

Too often breathed out in a woman's hearing,

When men have shrunk from the ignoble care

Of watching the last hour of him who led them.'

SARDANAPALUS. (Act 1
Sc. 2)

In obtaining the material for this section translations of the original works were consulted in the Library of the British Museum.

SCOPE OF OBSERVATIONS.

Twenty-four cases of mental disorder, occurring in relation to the exercising of the reproductive function in women, have been observed from the psychiatric and clinical points of view over a period of two years.

The biological phenomenon of reproduction is conveniently divided into the gestational, puerperal and lactational periods, but, in order to emphasise the relation of the psychoses to the functioning of reproduction, the cases will be dealt with collectively, though the various phases will be stressed when the types of disorder, their course and prognosis are considered.

The cases will be studied from an investigation of their etiology, especially with reference to heredity and environment.

The relation of the physical and psychological concomitant and precipitating factors to the psychotic personality will be discussed and illustrated.

Clinical descriptions of the mental and physical states are recorded, their inter-relation noted and their psycho-pathology investigated.

The course of the disorders with their prognostic indications, an outline of treatment and its evaluation follows,

Throughout these observations an attempt will be made to keep the perspective of the whole problem of mental

disease in view. The cases will be regarded as being overshadowed solely by one common factor - the exercising of the reproductive function.

Reference to individual cases will be made throughout, and a complete summary of the twenty-four cases is attached.

A statistical record of two periods of five years (pre-war and post-war), dealing with cases where the factor of reproduction was regarded as causal, is appended.

The close relationship of the exercising of the sexual function to the eruption of mental disorder will thus be illustrated and its significance as throwing light on the problem of mental disorder discussed.

A summary embodying the results of the observations and the conclusions arising therefrom, and an essay on the mechanism of the production of the psychoses completes the thesis.

E T I O L O G Y.

The question of heredity immediately precipitates one into debateable land. It is notoriously difficult to obtain anything like accurate family histories, either from patients or from their friends. There is the difficulty of evaluating vague terms such as 'Neurasthenia', 'Hysteria' and 'Eccentricities', and the personal attitude of relatives towards Alcoholism, renders it almost impossible to appreciate this as an etiological factor. Again in the valuation of degrees of mental deficiency one must take into account the social position with regard to moral, aesthetic and intellectual development. It is better to take the opinion of relatives in this than to try to judge from one's own standpoint.

*

The ascertained facts from personal investigation of the families of the observed cases will be given and commented upon.

Firstly, it is to be noted that in seventeen of the observed cases a definite history of family morbidity was obtained. In thirteen cases this hereditary morbidity was found to be direct, i.e., one or both of the parents were abnormal.

With regard to the parents the morbidity was equally distributed between the mothers and the fathers.

Either Epilepsy, Neurasthenia, Hysteria, or Feeble-Mindedness was represented in the parents.

Alcoholism was confined to the fathers, and occurred in four cases, a moderately high proportion, (16.5%).

In one case a sister had had a breakdown similar to the one observed in the patient, in relation to her first pregnancy. One noticeable feature (from personal observation and from information from relatives) was the frequency of degrees of mental deficiency in both parents.

In five cases brothers or sisters were found to be abnormal.

In one typical case of Dementia Praecox, the patient was the result of an incestuous union of a brother and a sister.

A family history of Phthisis (where several members of the family had died from that disease) occurred in two cases.

It is remarkable that, with the exception of Epilepsy, the more definite Psychoses such as the Manic-Depressive or Paranoid were not observed in the parents, but that more vague, ill-defined disorders, such as Neurasthenia, Hysteria and various degrees of mental defect predominated. This suggests that in the parents there was already some germinal defect, and that this defect was transmissible, and was revealed in the offspring by the stress of reproduction. In no case was

there evidence of a transmissible type of mental disease. The question of how far heredity acts on the individual, from the point of view of early parental environment, or from inborn defective mind stuff, is impossible to decide experimentally, but that certain minds should break down during the activity of a vital function, suggests the conception of the inherent deficiency of the germ plasm.

With regard to the special phases of the reproductive cycle there was no special distinguishing feature.

The importance of heredity in the etiology will be stressed later.

PERSONAL HISTORY AND ENVIRONMENT.

Considering the frequency of parental morbidity it is reasonable to presume that the early environment of the potential creator will not be conducive to the development of an evenly balanced nature equal to the stress of life. In a number of cases, as has been observed by others there was a definite history of previous mental disorder of a hysterical and neurasthenic type. Diagnosed psychoses had occurred previously in eleven cases, mainly in relation to the puerperal types, and were of the melancholic variety. Investigation of the early lives of patients revealed many minor defects of the personality. A common defect was emotionalism with weakened control. Worrying, anxious, meeting trouble half-way types, and those with retiring, seclusive shut-in tendencies, were observed. In three cases distinct

maternal fixations, and consequently difficult sexual adjustments on marriage, contributed to a psychotic outbreak.

One case in particular illustrates this, E.A.O. married, aet. 29, mother, brother and sister suffering from Neurasthenia (?). Patient was still tied to her mother's apron strings, and appealed to her in all her troubles; antagonistic to her husband. Patient was sexually frigid, and showed great reticence and repugnance towards anything connected with sex. Conjugal life was unsatisfactory, the husband demanding a greater show of affection and interest. Before the birth of the third child she was in a neurotic state which soon after labour culminated in an acute attack of mania. Recovery occurred in about six weeks, and it is interesting to note that great insight into her past mental life was exhibited, By persuasion, suggestion, and rational argument she was brought to realise her faulty adaptations, and to appreciate her duties to her husband and to her children. She was quite aware of her maternal incubus, but in her past neurotic state she had found this a necessary, though oppressive anodyne. That an acute psychosis was necessary to overcome a maternal fixation is worthy of notice.

Another feature observed in the majority of cases was the existence of an inferiority complex. This was revealed from the personal history before the attack. It was obvious in recovered cases when the patients expressed

a lack of self-confidence and showed loss of initiative and powers of application. This is contrary to the usual optimism observed in recovered psychotics. This inferiority complex, uncompensated as it is in most cases, may arise from an intuitive recognition of the germinal inferiority of the mind.

An interesting aside was the frequency of neurotic husbands. In four observed cases, one trembled violently on being interviewed, one stammered, one was alcoholic, and the other was an habitual criminal. This mutual attraction of psychopathic individuals has long been emphasised.

SOCIAL ENVIRONMENT.

The actual physical environment of the majority of the patients was unquestionably bad from an hygienic view-point. Coming from an overcrowded East London area where there is more fog and smoke than sunshine, and where it is not always easy for the inhabitants to find the ordinary necessities of life, their lives are one long conflict. They always live on the border line of subsistence level. Intellectual and moral development are consequently low, aesthetic almost unknown, and thus many channels of useful and cultural sublimation are shut off from them. These external factors must be a considerable force in the development of character, which, reacting on an already morbid temperament, produce a psycho-pathic personality. The

existence of the psycho-pathic personality, the incipient psychotic, is strikingly brought to notice in dealing with the disorders precipitated by reproduction.

PHYSICAL FACTORS.

Apart from syphilitic brain disease certain bodily conditions, remote and recent, were found. These reacting on the temperament must have played a part in the mental breakdown.

Remote Physical Factors.

The frequency of mal-developments and states of mal-nutrition is to be remarked upon. Many of the women were physically unsuited to motherhood. Closely associated with these were secondary anaemias and albumenurias, especially noticed in the cases arising in the lactational period. Degenerative stigmata, asymmetry of face, deformities of the ears, were frequently observed. Two cases had suffered in childhood from Chorea, one from Exophthalmic Goitre, another from convulsions (?) in early life. Definite heart disease of a serious nature occurred in four cases. Acute kidney disease with uraemic convulsions occurred in the past history of a pregnant case. Oral sepsis and dental caries were present in nearly all cases, but as the majority of patients admitted show this it need not be stressed.

Immediate Physical Factors.

Regarding the nature of the pregnancies and the

question of primiparity it is impossible to draw conclusions from an observation of twenty-four cases. They will be dealt with in the statistical analysis. It may be noted here, however, that difficult, instrumental labours occurred in only four cases. Thus the immediate factor of a difficult labour does not stand out as an etiological factor. This may be accounted for partly by the fact that only eight out of the twenty-four were primiparae. No primipara suffered during the lactation period. Frequent pregnancies at short intervals and histories of miscarriages were commonly observed. In several, the women appear to have been pregnant yearly. No history of post-partum haemorrhage was obtained, and in two cases only were slight degrees of endometritis found, (one associated with retroversion).

From this it may be deduced that it is not so much the traumatic shock of labour which is the precipitant factor in puerperal mental disorders but the far-reaching and comprehensive physiological adjustments which are suddenly called for. The importance of a difficult and arduous labour in these disorders appears to have been over-emphasised.

Psychical Precipitants.

In addition to the frequency of the morbid background, in most cases there were certain psychical precipitants, no doubt subsidiary in nature, but helping to com-

plete a vicious cycle. Domestic and conjugal worries predominate. The 'mother-in-law' complex was far more noticeable here than in relation to any other form of mental disorder. The deaths of the children, in one case while still at the breast, and in another at an early age from a Pulmonary Haemorrhage, were shocks of an emotionally distressing nature which played their part as precipitant factors.

The culmination of a difficult adjustment as exemplified by the following case is noticed. D.B., aet. 24, married, mother neurotic, sexual difficulties in early married life, dyspareunia owing to an imperforate hymen led to an anxiety neurosis, after operation became pregnant, but neurotic state continued, and after birth had a typical transient confusional attack.

In this case the sexual functions became intimately associated with fear and anxiety. Thus when the climax of the sex function, i.e., birth arrived, an exaggerated anxiety and confusional state resulted.

This intimate relationship between birth and fear is an important feature of the psycho-pathology of those psychoses precipitated by reproduction.

The question of illegitimacy, with its attendant shame, is purely a matter of the moral sanctions of the class to which the patient belongs, and must be valued with that in view.

Where there is much promiscuity, little social censure will be applied in cases of illegitimacy, and consequently the painful emotional state does not figure as an important psychological factor.

In two cases pregnancy occurred prior to marriage (both were slightly defective mentally), but this appeared to have had little effect on the nature or occurrence of the mental disorder.

In brief, anomalies of the sexual instinct, anxiety over the self-preservatory instinct, and fear of offending the social instincts, may all act as subsidiary precipitant factors, and along with the potent factor of reproductive adjustments combine to produce a psychosis,

CLINICAL PSYCHIATRICAL OBSERVATIONS.

MODE OF ONSET.

In all cases in relation to pregnancy there appeared to have been some definite mental morbidity prior to conception. One case was definitely paranoid; one was of a taciturn, melancholic nature; another had suffered from uraemia and was schizophrenic; whilst the last had signs of Dementia Paralytica. In all cases pregnancy appears merely to have accentuated the symptoms and they were admitted about mid-term.

In the puerperal cases one interesting feature was that the Manic and Confusional types revealed themselves within two days of labour, whilst the Melancholic and Praecox types were some time in developing. In some cases as long as four weeks intervened.

Severe and complete insomnia along with psychic and motor restlessness, paresis of appetite, anxiety and a degree of confusion were the warning symptoms in cases of early onset. In the Melancholic and Dementia Praecox cases there appeared to be a latent lucid interval lasting in some instances a week, and broken by the onset of insomnia, headaches, anxious dreams, and a 'strange feeling of something being wrong and of losing touch with everything', as one patient expressed it. Suspicion, reticence, and a limitation of the field of natural affection amounting to neglect of child and self followed.

Subsequently arose delusions in relation to sins and sexual matters, with marked self-abasement ideas, and occasionally aural hallucinations of an accusatory nature. It was at this point that most of these patients were admitted to Hospital.

The mode of onset in the lactational cases was more insidious. For some months the women had been ailing, were miserable, despondent, and a gradual failure of conduct had set in. Insomnia occurred; appetite was poor; delusions of unworthiness arose; condemning voices were heard, and either threatened or attempted suicide caused their admission to Hospital.

ACTUAL MENTAL SYMPTOMS.

The various symptom complexes will be examined individually.

In Mania the essential features of this type were retained, but, considering the degree of excitement, the dimming of consciousness and the intensity of the confusion were more profound than in ordinary Mania. A feature noticeable while in conversation with the patients was the occasional fleeting shade of anxiety and the pained look of distress which flickered over their countenances. Motor excitement was of a subdued nature. Their ideation was never so flamboyant or grotesque as is commonly observed in Mania, (probably due to the poor intellectual development of the patients). To both patient and observer the exal-

tation seemed spurious; the patient appeared to be conscious that the mood was out of harmony with the real state of affairs. This slight degree of insight is an important feature, for, though seldom present in cases of Mania, it was observed in all the present cases at some period or another. A diluted egotism, streaked with altruism was more characteristic than the usual concentrated and unbounded egotism of the ordinary Maniac. Eroticism and religious ideas were prominent, and in women whose disorder arises in connection with the generative organs this is not surprising. The close relation between the religious and sexual emotions is well known.

Kraepelin maintains that Puerperal Mania is only a phase of a manic-depressive psychosis, and that pregnancy is not the cause, but only the last impulse to the outbreak. Two cases bear this out. One was definitely a Manic-Depressive, having had acute Melancholia and acute Mania in association with past pregnancies. She was depressed in the later months of her last pregnancy, and shortly after labour developed a typical manic outburst. The other case was similarly depressed towards the termination of her pregnancy. She was stuporose for one day after labour and then developed manic symptoms. There was a superficial resemblance between the Manic and Confusional types. Nevertheless the absence of hallucinations, the intellectual acuity, the elation, and the

comparative absence of anxiety rendered the diagnosis clear. This differentiation was of some importance from the prognostic point of view.

The confusional symptom complex occurred only in the puerperal period, and was the most commonly observed psychosis during that period.

An anxious depression was common to all cases. Vague, fleeting delusions, and hallucinations dependent on false sense impressions, and associated faulty judgments characterised the type. Ideational inertia and a degree of imperception was observed after the acute phase had subsided. The mood was very changeable. It varied from a state of great anxiety to one approaching Manic elation. Restlessness and insomnia were marked, and in one patient who suffered from auricular fibrillation terrifying anxiety dreams disturbed sleep and aggravated the mental state.

In no case was an acute delirium observed, This is accounted for by the absence in all cases of any great degree of sepsis or toxaemia.

Melancholia was relatively more common during the lactational period, but also occurred during the puerperium. In some cases it was a recurrent attack. The depression was characterised by its variable nature. Daily fluctuations occurred, and in this respect these Melancholias differed from the ordinary involutinal variety where the degree of despondency varies but little.

The average profundity of the depression was never intense, and, although there was considerable retardation of thought, the patients were inclined to converse more freely than is commonly observed in Melancholia. Self-abasement ideas associated with delusions in relation to matters of sex and personal wickedness were prominent. In most cases these erroneous ideas arose out of aural hallucinations, the patient heard 'voices' accusing her of unforgiveable sins, and telling her of her incompetence.

The suicidal impulse was present at some time or other in all the Melancholic cases. In the Melancholias of the puerperium the impulse was never as strong as in those of the lactational period. One lactational patient attempted, and nearly succeeded, in committing suicide by drinking Spirits of Salt. In discussing this symptom with the patients one was struck by their stoical individualism. 'Mori licet cui vivere non placet.'

Suicide is thus a very important feature of the Melancholias arising in relation to childbirth.

Anxiety amounting in some cases to agitation showed itself as the fog of depression lifted and as the degree of insight grew. It appeared to be almost a conscious and legitimate response to the adverse circumstances in which the patient found herself, and to a recognition of her functional failure and incapability.

It should be noticed here that certain of the Confusional cases, when despondency prevailed, were out-

wardly similar to cases of Melancholia. Prolonged observation however, revealed the fundamental confusion of mind to be the dominant symptom in these patients.

Unquestionably the most outstanding feature of these Melancholias in relation to childbirth was the remarkable and acute insight which was revealed, not only relative to their actual illness, but also to their personal inferiorities.

Of the twenty-four cases six were eventually diagnosed as suffering from Dementia Praecox. In three cases it appeared that the Dementia Praecox was superimposed on a basis of congenital mental deficiency. In the others there had been previous attacks of mental disease, diagnosed respectively as cases of Confusional, Melancholic and manic-depressive insanities. These cases were distributed throughout all the phases of the reproductive function. One woman admitted when pregnant, suffered from delusions of the paranoid type, but associated therewith she exhibited a considerable degree of intellectual enfeeblement. Since her confinement, time has revealed her to be a paranoid Dementia Praecox. Possibly the sub-varieties were not so clearly defined as is usually noted.

It is significant that pregnancy may reveal a disorder, previously thought to be of a less serious nature, to be in reality a true primary dementia.

Kraepelin remarks "Reproduction in women certainly has an intimate causal relationship to Dementia Praecox, although the actual point of attack of this subversive influence is unknown".

In this type of patient there appears to be a minimum reserve of psychic energy, quite insufficient for the changes induced by the exercising of the reproductive function.

There was one case of Epilepsy. The woman had suffered from fits since marriage, and after her eighth pregnancy, had a bout of fits which resulted in stupor. She was typically epileptic and manifested an exaggerated and caricatured affection for her children, when, in reality, she was devoid of any altruistic sentiment. There was no other special feature.

Dementia Paralytica was observed in one pregnant woman. Depression and agitation along with mild persecutory delusions were the predominant symptoms. She shewed great anxiety and solicitude over her children. Her emotional reaction was excessive and uncontrolled; her conduct was unbalanced.

The mental symptoms will be described further in the section on the course of the disorders.

PHYSICAL CONDITIONS.

Physical morbidities of varying degrees of severity were manifested in the majority of cases. These will be described under the heads of the various systems.

In general it may be remarked that pregnancy aggravated the existing physical disorders, whilst in some cases labour brought them to the climax which coincided with the eruption of mental symptoms. This relation of the physical disability to the onset of the psychosis is well illustrated by the following case. L.A.D. aet 33. Had Chorea and Rheumatic Fever as a child; suffered from heart disease since. When pregnant shewed signs of failing compensation - and after labour developed auricular fibrillations, coinciding with onset of acute confusional, anxiety syndrome, Pyrexia; Albumenuria; Heart reacted well to Digitalis and mental state improved pari-passu with physical. Recovery resulted within two months. In this case, the physical climax, arising directly from the stress of labour, was instrumental in robbing the mind of its normal controlling and guiding mechanism and precipitated a state of psychological fermentation.

REPRODUCTIVE SYSTEM.

It must first be noticed that uterine sepsis and disease of the adnexa were not commonly observed. One puerperal case had an enlarged, soft retroverted uterus with offensive discharge - due to the retention of a small piece of placenta. Pyrexia was slight - constitutional symptoms not marked, and under treatment, the condition subsided. It was of interest that patient had one true

epileptic seizure during that period. She had never before had a convulsion, and since then has manifested no sign of that disorder. This would appear to be a case where reflex uterine irritation, in an unstable individual, has directly precipitated an epileptic convulsion. It is a suggestive point in the etiology of Epilepsy.

Some degree of subacute endometritis occurred in a case of Puerperal Mania. It responded to treatment, but with little effect on the mental state - the patient lapsing into a state of chronic mania.

A subacute mastitis without suppuration featured as a symptom in another case of puerperal mania, but it did not appreciably alter or modify the course of the disease.

MENSTRUATION; This function was in abeyance during the acute phase of all the varieties of the psychoses. It will be discussed in relation to the course of the disease, and the question of prognosis.

EXCRETORY SYSTEMS.

Degrees of defective functioning of the excretory organs were very common, especially in relation to the alimentary tract. One anxious, confused, puerperal case, had a phenomenal collection of faeces in her intestines. This was removed by repeated enemata and

purgatives and resulted in an immediate relief of the mental symptoms. Foul and foetid motions were of frequent occurrence during the early phases of the disease.

Gastro-intestinal atony, with delay in emptying of the stomach, was revealed by X-Ray in one lactational melancholic, and unquestionably this general inhibition of the gastro-intestinal function was present in some degree in every case of that type.

Ulceration or erosion of the stomach from drinking Spirits of Salt caused great difficulty in the matter of dietetic treatment in an exhausted, suicidal lactational melancholic.

Degrees of oral sepsis and caries, as remarked before, were exceedingly common.

Actual kidney disease was present in one case admitted when pregnant. Prior to admission she had suffered from uraemic convulsions. She had marked albumuria and revealed the usual signs of a uraemic toxaemia.

The mental state was that of Dementia Praecox. Alleviation of the toxaemia was followed by a mental amelioration, and eventually the patient was discharged relieved.

Degrees of albumemuria, without any other symptoms of renal disease, occurred in four cases. It was suggestive of a damaged or defective renal function.

CARDIO VASCULAR SYSTEM.

The relation of the failure of cardiac compensation to the onset of mental symptoms has already been emphasised.

Mitral Disease (in one case with auricular fibrillation) was represented in two cases, - Aortic Disease in one. In these cases anxiety symptoms were very prominent. Hyperpiesis with cardiac hypertrophy was associated with acute depression in a puerperal case.

In passing it must be noted that all these cases reacted well to treatment. A fair degree of compensation was regained and maintained.

Pulse and Blood Pressure records were taken in all cases and some are appended below. —————>

SYSTOLIC AND DIASTOLIC BLOOD PRESSURES.

Name	Age	Type of Psychosis	Pulse Average	S. D	S. D	S. D	S. D	S. D	S. D	S. D	S. D	S. D	S. D	Special Observations
J.L.D.	38	Mania	80.85	100.75	98.74	105.78	108.80	-	-	-	-	-	-	Rapid Recovery.
M.M.W.	24	Acute Melancholia	70.80	135.100	125.100	125.78	120.80	118.75	100.95	100.90	100.90	100.90	100.90	Under influence of Erythrol tetranitrate
L.A.D.	33	Acute Confusional	75.100	90.80	95.78	98.78	95.74	100.78	-	-	-	-	-	Rapid Recovery.
E.A.O.	29	Mania	68.84	93.80	98.80	95.78	120.95	123.86	-	-	-	-	-	
L.B.	44	Recurrent Melancholia	65.75	180.100	145.98	155.120	115.80	112.78	138.102	-	-	-	-	Under influence of Erythrol tetranitrate.
M.R.T.	27	Acute Hypochondriacal Melancholia	70.80	135.105	120.100	123.79	125.85	128.85	110.98	115.90	115.95	115.95	115.95	Under influence erythrol tetranitrate.
A.P.	26	General Paralysis.	65.85	158.95	128.90	120.90	125.94	130.98	128.94	130.90	135.98	135.98	135.98	
L.D.	23	Dementia Praecox	68.82	120.90	110.?	115.78	125.85	118.73	112.78	-	-	-	-	
E.A.A.	22	Dementia Praecox	70.80	125.95	115.106	110.94	120.75	118.80	-	-	-	-	-	
A.M.M.	29	Acute Mania	75.95	120.90	150.118	170.118	130.95	140.98	145.98	145.98	145.98	145.98	145.98	Mania with a relatively high B.P. Note fluctuations.

TAKEN AT WEEKLY INTERVALS.

The results recorded reveal, (though not without exception) that states of Mania are associated with low, and states of Melancholia with high blood pressure. This is in accordance with what is generally found. Maurice Craig suggests that the sudden release of splanchnic pressure after labour causes a marked lowering of the blood pressure, and so accounts for the frequency of Maniacal and Confusional outbursts occurring immediately after labour.

The blood pressures recorded are not sufficiently consistent to support that idea, and something more fundamental than a mere alteration of blood pressure may be presumed to be responsible for the type of psychosis that may erupt.

HAEMOPOIETIC SYSTEM.

Blood counts, including differentials, and haemoglobin estimations were performed.

All cases showed some degree of secondary Anaemia. The red count never approximated to the normal. This Anaemia was especially marked in puerperal cases examined soon after admission. In two confusional cases there was a slight leucocytosis from 15 to 20,000. It was associated with a slight preponderance of small lymphocytes. There was no alteration of the eosinophiles.

The colour index was always below 1.0.

Records of the percentage of haemoglobin performed by the Haldane-Gower method showed the haemoglobin content to correspond with that usually found in secondary anaemias. Bevan Lewis remarks on the low haemoglobin percentage found in the psychoses in relation to reproduction, but comparing the results obtained with observations of psychotics where reproduction was not the exciting factor this special feature was not found.

Apart from the prevalence of secondary Anaemias in early cases, and a Leucopenia in the more chronic cases, there was nothing definitely characteristic of the blood pictures in those observed psychoses.

NERVOUS SYSTEM.

Tabes Dorsalis, associated with a recurrent Melancholia, presented the typical neurological signs. The girdle sensation and the shooting pains were well marked. Wassermann of Blood and C.S.F. were positive. With the improvement of the mental condition a remission of physical symptoms took place. Similarly, from the neurological point of view the case of Dementia Paralytica showed no point of difference from the cases ordinarily observed.

Blood Wassermann reactions were performed in all cases, but other than in the two above cases negative results were obtained.*

* The Wasserman Tests were personally performed in the hospital laboratory.

Stoddart has recorded the occurrence of peripheral analgesia in cases of the Confusional Psychoses. He suggests that the imperception and hallucinations which occur are due to an increased resistance at the synapses, causing a dissociation of the central and peripheral neurones. The occurrence of analgesia is obviously difficult to detect in the acute phase owing to the mental state, and where it was possible to investigate the sensory functions no peripheral analgesia was found.

Similarly with the supposed diminution of the visual fields, - after the acute phase had subsided, - little alteration from the normal could be found.

A general increased reflex excitability of the nervous system in response to external stimuli occurred in certain of the confusional types. It was of an incoordinated, purposeless, and futile nature.

Headaches during the course of the disease were infrequent, but as mentioned before, were important pro-dromal symptoms.

Associated with the Nervous System is the closely related Endocrine. Unfortunately it is not at present possible to judge morbidities or changes in the ductless glands unless they are themselves specially diseased. Yet the prostration and fatigue noticeable in most of the patients suggest some temporary exhaus-

tion of these organs. This question will be referred to again when treatment is discussed.

In brief, the effects of the various physical morbidities may be summed up in their producing in all tissues of the body, but more especially in the Central Nervous System, a state of fatigue and partial exhaustion. Fatigue is a sort of intoxication, and if prolonged will be followed by exhaustion, - a state where katabolism is in excess of anabolism, - or where consumption exceeds repair.

Such is an epitome of the physical background of the psychotics under observation.

PSYCHO-PATHOLOGY.

From the clinical psychiatric observations one striking fact, the universal incidence of a pathological emotion of fear, emerged. This morbid emotion intertwined all the symptom complexes and modified the various reactions. In most cases it took the form of anxiety, anguish or excessive apprehensiveness; occasionally of seclusiveness.

Fear is one of the most primitive emotions, and has its roots in the instinct of self-preservation. The functioning of reproduction is an assault by Nature on the individual woman's life. In order that Life may go on women must take the risks that are inevitably bound up with childbirth. Hence it is not unnatural that the emotion of fear should be closely related to the instinct of reproduction, and that reproduction should be one of its most potent excitants.

Another factor which renders the emotion hyperexcitable is the fatigue, physical and mental, which accompanies the act of birth. The voluminous waves of maternal emotion, and the muscular output of labour, combine to produce a state of fatigue which renders passive the normal inhibitants to the emotion of fear.

Fear is the most depressing of all emotions, and even when in moderate degree, produces well-known

bodily symptoms affecting the cardio-vascular, gastro-intestinal and excretory systems. If more intense, a paresis of will may be produced, and judgment consequently dethroned.

Intellectual culture tends to reduce the intensity of fear and strengthens the inhibitions to its arousal. Conversely, in individuals who by birth and early environment have developed an ill-balanced inferior personality, the emotion of fear is easily aroused, and is with difficulty inhibited. In such individuals when the emotion is aroused by some fundamental cause such as reproduction this crippling force will dominate the mind, alienate the highest functions of judgment, reason and control, and will permit any latent psychopathic tendencies to usurp the field of consciousness.

The rôle of the physical factors in the mental disorders under discussion can be evaluated from the degree of physical and mental fatigue produced, and the corresponding exhaustion of the reserve of psychic energy.

Thus the essence of the psycho-pathology of the mental disorders related to reproduction lies in the abnormal excitability of the emotion of fear. The overflowing of the morbid emotion is facilitated by the partial exhaustion of psychic energy in persons in whom there is little reserve of this potential force. This may arise either from germinal deficiency or disease. The

uncontrolled and destructive emotion originates a paresis of the highest functions of the mind. It is comparable with the manner in which alcohol or other drugs allow the eruption of morbid mental traits when the psychical controlling factors are obliterated.

This is suggested as the mechanism by which the functioning of reproduction brings about the escape of the psychotic manifestations which are assumed to be symbolic representations of inherent defects of the personality.

COURSE OF THE VARIOUS PSYCHOSES AND PROGNOSTIC

INDICATIONS.

From the immediately practical standpoint the course of the various psychoses and the prognostic indications will be traced out under the heads of Gestation, Puerperium, and Lactation.

Prognostic generalisations will be avoided; the number of cases observed demands this. Nevertheless certain features of psychiatric prognostic interest emerge.

In the cases admitted during PREGNANCY this event appeared to have been either an incident during the development of a psychosis, or to have precipitated a latent disorder which sooner or later would have revealed itself. It is certain that the Dementia Paralytica or the Dementia Praecox would have become manifest eventually. How far these diseases were merely coincident, or were precipitated, can only be estimated by a full consideration of each individual case.

In the lactational patient who suffered a Melancholic exacerbation on becoming again pregnant there can be little doubt that this pregnancy was the immediately precipitating factor. Mental improvement, coincident with physical regeneration, took place towards the termination of the pregnancy and the patient was discharged. The puerperium did not produce a recurrence of symptoms



and it seems probable that the hospital treatment, prior to confinement, allowed the patient to recuperate her psychical and physical energy and prevented a breakdown which might have arisen subsequent to labour.

In the Paranoid and simple Dementia Praecox cases no improvement took place either prior or subsequent to confinement. In both cases there was a bad hereditary history and a background of mental deficiency. One was justified in saying that the prognosis in such cases was unquestionably bad. After confinement the mental deterioration was more marked and the progress towards dementia more obvious.

The Dementia Paralytic after an easy delivery in hospital showed but little change in her mental or physical state. There was a fairly steady, though slow, deterioration.

With the exception of the Melancholiac, in no other pregnant case was there any response to treatment.

The relative rapidity of the mental dissolution in the Dementia Praecox cases is worthy of note.

Of the cases in relation to the PUERPERAL PERIOD the confusional types being of most frequent occurrence will be discussed first. The early onset after labour has already been discussed. The acute phase of the disease lasted from about five to fifteen days, and was

followed by a partial mental exhaustion, even though the bodily condition was beginning to show signs of improvement,

In two cases the mental symptoms cleared up with remarkable speed, and the mental unity was quickly regained. It must be noticed that in these cases the physical condition had been a relatively serious and acute one, but it had responded exceedingly well to treatment. In the other patients a sub-acute state of semi-stupor and confusion followed, and the development of lucidity was very gradual. An amnesia for the acute phase of the disease was observed in all cases. The amnesia was partial; the patients remembered certain incidents, but were rather unwilling to relate the details of their illness. Psychological repression was 'coming into action'.

All the patients but one recovered and were discharged within six months. As remarked previously, during the convalescence a peculiar lack of self-confidence and defective emotional response was observed, and this state persisted for some time after their discharge from hospital.

The degree of remediable physical defect and the intensity of the mental dissolution were guides to the prognosis, especially with regard to the duration of the disorder,

Paradoxical though it might seem when the phy-

sical morbidities were marked the psychiatric prognosis was good.

The Manic types, similar to the Confusional, were of early onset after labour. The acute phase lasted from two to four weeks, and was followed by a sub-acute stage when the mental balance fluctuated considerably. This phase lasted from one month to six weeks, and subsequently came to a period of Hypo-Mania, which was of varying duration. The course of the recoverable Maniacs was rather prolonged and slight relapses or exacerbations were not ^{un}common. One case became chronic with coincident general impairment of mind and a tendency to Dementia. In the early stages of the Manic state the occurrence of lucid intervals, associated with insight, is a suggestive prognostic feature of good omen.

The Manic-Depressive (admitted in the Manic phase), on alleviation of her physical symptoms, made a good recovery, but some slight degree of intellectual enfeeblement remained.

There is little doubt that childbirth was but an irritant incident during the course of a Manic-Depressive psychosis. The exercising of the function hastened the approach of Dementia.

The course of the Puerperal Melancholias was marked by the variability of the depths of the depression. Acute suicidal impulses were transient. Aural hallucinations and delusions arising therefrom were of longer duration,

they could be detected three or four months after admission. Their disappearance, however, did not immediately coincide with the dispersal of the depression. For some weeks after their obliteration from consciousness a degree of depression was still manifest. Insight, in some consistently present, in others present in flashes, showed itself throughout the course of the disease, and is of prognostic importance. The comprehensiveness of their insight appeared to be in direct proportion to the rapidity of their recovery.

In all cases mental recovery was complete within twelve months. The tabetic Melancholia appeared to have a partial remission of her organic symptoms. This may be accounted for partly by the effects of ordinary hospital treatment and routine.

Little can be said of the cases of Dementia Praecox. All showed signs of early chronicity, and there was a slow but steady decline towards terminal Dementia. The bad hereditary history, and the inborn germinal mental deficiency, common to all, were regarded as unfavourable prognostic indications.

In the case of the Epileptic who, (after confinement), had a severe bout of fits resulting in stupor, the seizures recommenced within a month, and manifested themselves with the usual regularity. A state of mental enfeeblement has ensued, and she is reaching towards a

state of Epileptic Dementia. In such a case the question of prognosis could hardly arise.

The Melancholias arising during the LACTATIONAL PERIOD were insidious and gradual in onset, and their course was that of sub-acute melancholia. Response to treatment was poor, and although the bodily health improved considerably the mental state did not show a corresponding change. In two cases there were signs of recovery after about six months, but the convalescence has been slow and protracted. In such cases the ordinary psychiatric features of the individual cases guided the prognosis. The patient originally thought to be a Manic-Depressive, but who has since exhibited signs of Catatonic Dementia Praecox, has passed into a state of chronic dementia with consequent unfavourable prognosis.

In the puerperal and lactational psychotics the recommencement of the menstrual function is of considerable importance from the prognostic viewpoint. In the Puerperal Confusional and Manic types menstruation commenced three to four months after confinement. Mental improvement in most cases preceded the re-establishment of the function, and with its commencement there was some slight temporary depression and irritation. This mental improvement prior to the onset of menstruation is an important fact of observation. In cases where this preliminary mental improvement did not occur with the commencement of menstruation the prognosis turned out to

be unfavourable. Menstruation was subsequent to the mental improvement and cannot be regarded as casual. In Melancholic patients the menstrual function was late in reasserting itself. It occurred six to nine months after confinement, was in some cases scanty, and associated with a slight exacerbation of the melancholy. Mental improvement was so gradual in Melancholic cases that it could not in any wise be related to the onset of menstruation.

The Dementia Praecox cases were also late in menstruating, and they exhibited various minor irregularities. Its onset was not coincident with any marked physical or mental change,

In those patients admitted during the lactational period menstruation was in abeyance, but in all it recommenced within two months of admission. Its onset was not marked by any special feature, and was of little prognostic value.

CONCLUSIONS AS TO PROGNOSIS.

Certain deductions relative to prognosis arise from these observations. The determination as to whether reproduction was merely an irritating coincident or the direct precipitant of the psychotic state is of first importance in forming conclusions as to prognosis. Incidentally this will evaluate reproduc-

tion in the etiology of mental disease. This valuation can be obtained from a study of the personal history, the nature, onset and course of the disease, as has been indicated in the cases described, Where reproduction figures as an incident in the development of a psychosis the ordinary prognostic rules of psychiatry, as applicable to the type of disease, may be applied. But to this we must add the proviso that the functioning of reproduction, though a temporary irritant, may hasten the process of mental dissolution or confirm an indeterminate psychosis. The possibility of recurrence of pregnancy must be remembered when the question of remote prognosis is raised.

When the pregnant state has brought on the psychosis certain conditions influence the prognosis. A bad hereditary history is very common, yet too much stress cannot be laid on this factor for several cases with such histories made good recoveries. Still when the prognostic balance is in doubt a bad family history would turn the scale to the side of a bad prognosis.

An estimation of the natural or inborn personality defect is, when possible, the best guide to the future. The alterable external factors and the remediable physical morbidities must be appreciated. The accurate diagnosis of the type of psychosis is of special importance in regard to the duration of the illness.

During the course of the disorders certain indications arise which aid the making of an immediate prognosis. As mentioned before the degree and comprehensiveness of the insight exhibited, the depth of mental dissolution, the relation of mental symptoms to the onset of menstruation, and the response to treatment, mental and physical, are valuable guiding signs.

The question of remote prognosis is more hazardous. From the number of recurrent cases there can be no doubt that certain women are congenitally unequal to the stress of child-bearing, and that in such women the exercising of this function should be avoided. In other types it appears that it is the novelty of the experience which is the greatest factor, and that subsequent pregnancies may be unassociated with mental disorder. It is in relation to recovered patients that the remote prognosis is of first importance. A thorough mental examination should be made. The personality should be explored, and the presence of the inferiorities noted and valued. The degree of natural insight and plasticity of the mind will indicate the inherent corrective powers, and according to these findings a hazard as to the future may be made.

THERAPEUTIC SUMMARY.

'Time is that wherein there is opportunity, and opportunity is that wherein is no great time. Healing is a matter of time but it is sometimes also a matter of opportunity.'

Hippocratic Precepts; (2).

It is the object of all therapeutic effort to render the mentally disordered person fit, physically and mentally, to take his place as a useful member of society.

In mental disorders, as in physical, the disappearance of symptoms should not be regarded as the end, but only as a stage in the process of recovery.

An attempt should be made to attack the fundamental roots of the disease. These are regarded as defects of the personality and reveal themselves by the difficulties of adjustments and adaptation to ordinary life.

Should the psychotic recover, and no attempt is made to discover or rectify the inherent defects, the probability of relapse or recurrence is very great.

The ultimate success of any therapeutic measure lies in rendering the one-time psychotic immune to a recurrence of her disease. This can be accomplished either by changing a pernicious environment or by rectifying personality defects. Fortunately many psychotics endeavour, without external help, to make fresh efforts

to readjust themselves to their social functions. In such cases an acute attack of mental disease has been necessary to warn them of their shortcomings, and to stimulate them to strive afresh and make satisfactory adjustments to life.

In the evaluation of treatment these conceptions are kept in view.

With the psychotics under observation treatment was directed to remedying both physical and mental defects.

The general therapeutic principles applicable to physical and mental disease were applied and need not be stressed.

Rest was an essential consideration. Insomnia was counteracted by hydro-therapy. Depressant drugs were avoided, but were not withheld if insomnia was severe. Paraldehyde was given with good results in two confusional cases complicated with mitral disease.

With reference to diet, where the eliminating organs, the kidney and bowel, were defective, nitrogenous food was avoided. When exhaustion was marked an ample nutritious diet was given.

The reproductive organs were carefully examined in all cases. If there was a suspicion of sepsis, vaginal douching was resorted to, and Ergot and Quinine were given orally. Uterine displacements were rectified.

The alimentary tract was investigated. Signs of auto-intoxication were treated by frequent enemata and aperients. When the motions were foul, Dimol and Kerol were used. The effect of these drugs was not controlled bacteriologically, but in certain cases the foulness of the motions was diminished, and this was coincident with physical improvement.

The mitral disease was treated in the usual way by Tincture of Digitalis. The response was rapid and compensation was quickly regained.

In three Melancholics high blood pressure was treated with Erythrol Tetranitrate. The systolic pressure was immediately reduced. In one case with marked insomnia this symptom was relieved.

The effect of this drug was very transient. If the drug was not persisted with the blood pressure soon returned to its average.

A search for local sepsis was made in each case. This did not always have positive results.

Caries and pyorrhoea were common, and were treated by the visiting dentist. Some improvement in general bodily health resulted.

On the assumption (not verified experimentally) that endocrine deficiency might contribute to the etiology Thyroid and Hormotone feeding was tried in exhausted confusional and melancholic cases. Thyroid was

given in progressive doses until the patient was receiving twelve grains daily. Pulse rate, respirations, temperature and body weight were charted.

It was remarkable that the bodily response to Thyroid feeding was very slight in these cases. It was only when maximum doses were given that alterations in the pulse were recorded. The drug was tried on other patients in a fair state of physical health. They responded in the usual way with tachycardia, flushings and palpitations.

This observation suggests that in the exhausted patient there was a hypo-functioning of the Thyroid. This defect, if indeed it was not a subsidiary cause of the exhaustion, would prevent the natural and speedy regeneration of the body after the stress of child-birth.

Bodily improvement appeared to be hastened by Thyroid feeding in the Confusional cases, but the effect was less noticeable in the Melancholias, Mental improvement was coincident, but it seemed likely that the Thyroid did not act directly on the mental functions, but produced its action through the medium of the physical amelioration.

On the onset of menstruation Thyroid appeared to have no special action.

In lactational cases the effect of Thyroid was

less noticeable. This makes one sceptical as to its real value.

Hormotone was given by the mouth. Even in large doses it had no effect on the bodily economy clinically observed.

In conclusion there is no reason to doubt that if there is an endocrine deficiency in these exhausted cases this defective functioning will eventually right itself, provided ordinary therapeutic principles are utilised.

On the other hand, it seems probable that the remedying of this function may be hastened if a temporary substitution of gland substance is made.

In the tabetic Melancholic, mental improvement was associated with a remission of the physical symptoms and no special treatment was adopted.

It must be noted that the majority of the Melancholic and Confusional cases were kept under close observation owing to the frequency of suicidal tendencies.

Little active psychological treatment could be adopted during the early stages of the various psychoses. As soon as the mental state allowed, however, therapeutic talks were engaged in. In certain Confusional, Melancholic and Manic cases an investigation of the patient's life history was made, thereby allowing her to reveal her personality. The results of these conversations have manifested themselves in previous pages.

As the insight grew the patients' weaknesses especially relative to their sexual functions were pointed out, and the means of remedying them explained. The patients were educated to develop an independence of mind, and to free themselves from faulty supports and refuges.

In a number of recovered cases the patients stated that since their illnesses they had developed a new outlook on life and that they had little fear of the future.

Nevertheless it must be remarked that it was only in cases where a degree of spontaneous recovery had taken place that such psychological treatment was feasible. The limitation of this form of therapy is thus obvious.

With patients who showed signs of chronicity (notably the cases of Dementia Praecox) an endeavour was made to interest them in some form of occupation. Their curiosity was stimulated by coloured raffia and wools, and the aim has been to render such patients relatively useful inmates.

To conclude, it may be generally stated that in no other varieties of mental disorder are the responses to treatment more successful. Efficient treatment unquestionably hastens recovery. The effects of treatment are best seen in the puerperal cases where serious physical morbidities are commonly present. With their alleviation, amelioration and, in some cases, a complete remission of the mental symptoms frequently results.

Case treated by Injections of Ovarian Extract

One Puerperal Confusional case has recently been treated by Subcutaneous injections of Ovarian extract.

E.V.N. act 29 was admitted three weeks after confinement in a state of profound confusion. There was no definite organic disease and no evidence of marked toxæmia. In about three weeks, under general treatment, the restlessness, impulsiveness and motor excitement became less obvious, but the mental confusion persisted.

She was then given injections of ovarian extract (whole gland) 2 cc containing $\frac{1}{2}$ grs of Ovarian Substance were given every two days for a fortnight.

There has been absolutely no physical reaction clinically observed. Menstruation is still in abeyance. The degree of mental confusion remains unchanged.

Probably this was not the best type of Case to respond favourably to this form of therapy.

The factors of exhaustion and toxæmia were insignificant and taking into account the degree of mental dissolution, its duration and the absence of physical contributory factors, the prognosis was unfavourable.

STATISTICAL ANALYSIS.

PSYCHOSES in relation to the exercising of the Reproductive
Function in Women.

Hospital Statistics from 1906 - 1910. Period of 5 years.

Year	1st Attack.			Not 1st Attack.			Total of F. Admns.	% of cases to Total Admns.
	Preg.	Puerp.	Lact.	Preg.	Puerp.	Lact.		
1906	2	6	1	-	-	1	148	7.4%
1907	2	2	-	-	1	-	149	3.4%
1908	2	9	-	-	-	1	131	9.0%
1909	1	6	2	-	1	-	99	10.0%
1910	1	8	3	-	-	-	143	8.4%

Total cases in relation to pregnancy 8)
 " " " " " the puerperium 34) = 50
 " " " " " lactation 8)

Total female admissions for 5 years (1906-1910) 670

Total number of psychoses in relation to reproduction 50

Average % of Psychoses in relation to reproduction to
female admissions 7.5%

Percentage in relation to pregnancy 16

" " " " the puerperium 68

" " " " lactation 16

Percentage of 1st Attacks 90

Percentage not 1st Attacks 10

Hospital Statistics from January 1920 till January 1925.

Period of Five Years.

Total female admissions	610
Admissions in relation to factor of reproduction	74
<u>Percentage of Psychoses in relation to reproduction to</u> <u>total female admissions</u>	<u>12.1.</u>

(Cases in relation to pregnancy	8 or 10.9%.
(" " " " the puerperium	45 or 60.9%.
(" " " " lactation	21 or 28.2%.

Cases where predominating symptoms were

of Melancholic variety	23 or 31.1%.
" Manic "	24 or 32.4%.
" Confusional "	17 or 23.0%.
" Dementia Praecox "	2 or 2.7%.
" Epileptic "	5 or 6.7%.
" General Paralytic"	2 or 2.7%.
" Obsessional "	1 or 1.4%.

In relation to pregnancy

Melancholia	1 or 12.5%.
Mania	3 or 37.5%.
Epilepsy	3 or 37.5%.
General Paralysis	1 or 12.5%.

In relation to the puerperium.

Melancholia	12 or 26.6%.
Mania	14 or 31.1%.
Confusional type	14 or 31.1%.
Epilepsy	2 or 4.4%.
General Paralysis	1 or 2.2%.
Dementia Praecox	1 or 2.2%.
Obsessional type	1 or 2.2%.

In relation to lactation.

Melancholia	11 or 52.0%.
Mania	7 or 33.0%.
Confusional type	2 or 10.0%.
Dementia Praecox	1 or 5.0.

Total number of Primiparae ..35, or percentage of whole, 47%.

<u>First attacks</u>	49 or <u>66%</u> .
<u>Not first attack</u>	25 or <u>34%</u> .
<u>Number unmarried when pregnant</u>	5 or <u>6.7%</u> .

Age period	Preg.	Puerp.	Lact.	Total.
21 - 25 years	2	15	2	19
26 - 30 "	5	12	8	25
31 - 35 "	5	12	2	14
36 - 40 "	1	4	6	11
41 - 45 "	-	2	3	5

NOTE:-

Cases occurred most frequently at age period 26-31 in pregnancy.
 " " " " " " " 21-25 " the puerperium.
 " " " " " " " 26-31 " lactation.

Percentage of Primiparae in cases of pregnancy 63

" " " " " " the puerperium 56

" " " " " " lactation 14

Cases where there was a definite history of hereditary disease .. 32

Proportion to whole 43%

Onset of Symptoms.

In cases of pregnancy:-

In seven cases out of eight or 87%, the symptoms were first manifested about the sixth month of gestation. One case, or 13% being at mid-term.

In puerperal cases :-

34 cases	or	75%	shewed	symptoms	within	14	days	of	labour
8	"	"	18%	"	"	"	24	"	"
3	"	"	7%	"	"	"	42	"	"

In lactational cases :-

6 cases	or	29%	shewed	symptoms	from	6th	to	12th	weeks	after	labour
11	"	"	52%	"	"	"	"	13th	"	18th	"
4	"	"	19%	"	"	in 19th week after labour					

Physical Factors in relation to the Psychoses :-

Endometritis	6
Mastitis	2
Heart Disease (Valvular)	4
Atony with dilatation and defective activity of heart	6
Tuberculosis	4
Pneumonia (Lobar and Broncho)	2
Asthma	2
Secondary Anaemias of moderate severity ...	8
Albumenuria	4
<u>Organic Nervous Diseases:</u>	

General Paralysis	2
Epilepsy	4
Progressive Muscular Atrophy	1

Marked Aural Sepsis	16
Physical exhaustion and malnutrition	11

History of frequent pregnancies, abortions and miscarriages in 27%.

Special mental symptoms.

Active suicidal tendencies in 19 cases, or 26%.

Homicidal impulses towards children in 4 cases, or 5%.

Terminations of all forms of Psychoses in relation to reproduction:-

Discharged recovered	39	or	60%.
" relieved	13	or	23%.
Chronic	5)) = 12.1%.
Transferred unimproved and unlikely to improve..	4)	
Died	3	or	4.5%.
Still in Hospital with fair prognosis	10		

Results in relation to special forms :-

	Recovered	Relieved	Chronic	Died
Pregnancy	4	1	3	-
Puerperium	23	9	-	3
Lactation	12	3	6	-

NOTE :-

6 out of 21, or 28% lactational cases became chronic, and the greatest percentage of recoveries occurred in puerperal cases.

Duration of illness of those discharged recovered or relieved:-

<u>Left Hospital</u>	<u>- Within 6 mths.</u>	<u>6-12 mths.</u>	<u>12-24 mths.</u>	<u>After 24 mths</u>
<u>Pregnancy</u>	4	1	-	-
<u>Puerperium</u>	23	5	3	1
<u>Lactation</u>	10	3	2	-
Totals - <u>37</u> or 71%. <u>9</u> or 17% . <u>5</u> or 10%. <u>1</u> or 2%				

No. of Patients.

Chart of Age Periods.

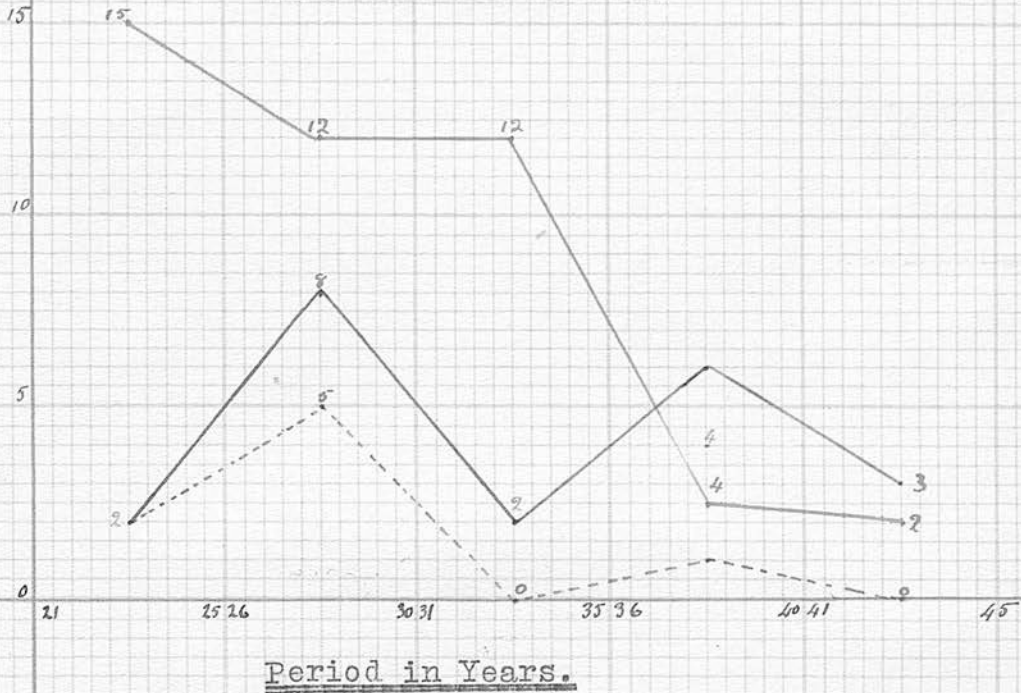
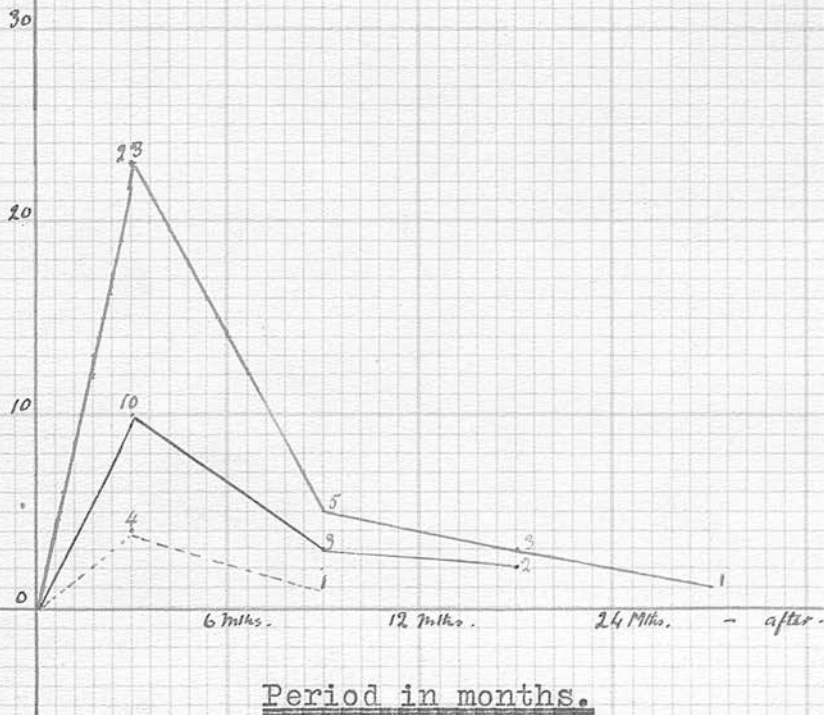


Chart of Rate of Recoveries.

No. of Patients.



Pregnancy - - - - -
 Puerperium - - - - -
 Lactation - - - - -

Period in months.

STATISTICAL ANALYSIS.

The statistical method may be profitably applied to the study of a social psychiatric problem.

Fundamental to the prosperity of any society is the health, mental and physical, of its procreators. Should the subversive influence of mental disease attack women when exercising this very vital function the problem ceases to be an individual one. It becomes a matter of communal importance.

By the statistical method an attempt is made to arrive at a simple statement of the effects of reproduction on a large number of women. Confusing details are cleared away and the salient features are mapped out in their true perspective.

In order to obtain full worth of these statistics comparisons are necessary and vital. Differences must be explained, and the explanations thus arising are useful fruit from the statistical tree.

Certain generalisations emerge. Consequently an individual problem may be viewed in the light of collective knowledge.

Before commenting on the recorded statistics it will be necessary to describe certain conditions which influence their interpretation. The environmental background will be considered first.

As indicated before, the Hospital draws its patients from an overcrowded East London area, where bad housing and poor sanitation prevail. The inhabitants are mainly employed in factories and in dock labour. Employment at any time is casual and uncertain. In consequence the general standard of living is low. This social poverty and distress, along with the continual struggle for existence, associate themselves in a causal manner with excessive indulgence in alcohol. Alcoholism affecting both sexes is an important factor in the etiology of patients admitted to this Hospital.

Picturesquely, though accurately, they may be considered as people of the abyss, the flotsam and jetsam of our social order, who have drifted to the ghettos of dockland.

VITAL STATISTICS.^{1.}

In 1911 there was the relatively high Birth-Rate of 29.8, but associated with this was the large Infantile Mortality Rate of 141.

The Death Rate was 15.7.

In marked contrast are the figures for 1924. The Infantile Mortality Rate has fallen to 78, and the Death Rate to 11.5. Incidentally it may be noted that the Birth-Rate has fallen to 22.6.

¹Annual Report of the Medical Officer of Health, 1924.

The deaths due to Tuberculosis numbered 378, giving a Death Rate for the year of 1.9 per 1000.

These facts form a background essential to the understanding and interpretation of the following statistical details.

The FREQUENCY of REPRODUCTION as an ETIOLOGICAL FACTOR.

Where the exercising of the reproductive function was a definite etiological factor the yearly average, calculated from a pre-War period of five years was found to be 7.5% of total female admissions. Clouston gives the figure as 10%.¹

In considering this figure certain modifying influences must be taken into account. In the first place all patients were sent to the Observation Wards of the Union Infirmary, and when the attacks were transient, as no doubt many were, the patients did not reach the Mental Hospital.

Secondly, experience has shown that the members of the social class under discussion will put up with greater eccentricities of conduct than those of a higher class. There is a wider latitude of behaviour. The dividing line between the mentally diseased and the so-called balanced mind is less defined. So long as the woman is able to perform mechanically her routine household duties (no matter what her emotional or intellectual life is) she is considered to be well mentally. The result

1. Mental Diseases, p.545, 5th Ed.

is that many of the lesser cases where emotional disorder prevailed are beyond the pale of Hospital treatment. These factors must have diminished appreciably the percentage of cases admitted to the Mental Hospital.

It should be noted that these figures take no account of the lesser abnormalities so common during the pregnant state.

COMPARISON with POST-WAR PERIOD.

In marked contrast is the figure for a post-War period of five years. 12.1% of annual female admissions were attributed to the exercising of this function.

The stress and anxiety of four years' warfare, with its physical privations and moral abandonments, must have produced in an already susceptible population a state of mental tension where any additional shock as that associated with pregnancy must precipitate a mental breakdown. In the aftermath of the War came the economic depression with its accompanying unemployment and social distress, acutely felt by those of a teeming industrial area.

Psychologically, the explosive and excessive output of energy during the War period had to be followed inevitably by some degree of psychic exhaustion. Coupled with this was the attempt (more or less unconscious) to regain the moral spirit and social restraints of peace-time. This in turn set up a conflict with the aroused primeval, ego-

tistic, non-moral impulses of the fundamental unconscious mind. To the physical and nervous exhaustion, and the associated conflict resulting from the cataclysmic upheaval, must be ascribed the great increase of the percentage of admissions where the factor of reproduction was regarded as causal.

That changes of the social conditions should affect the mental states associated with pregnancy so potently is not surprising when it is realised that the reproductive function is the most delicately poised and finely balanced of all human activities. The perpetuation of the species, the carrying on of the current of Life, is the act of supreme personal and social importance. It is but vaguely realised, yet from it may arise the genius or the degenerate, the social or the asocial. The mental health of the bearers and propagators of new life is a pressing problem of our complex civilisation. It brings into line a train of thought, - questions of heredity, sociology, eugenics and mental hygiene.

DISTRIBUTION OF CASES.

It is natural that it is the puerperal state, with its physiological and pathological stress, that accounts for the greatest proportion of cases, -68% pre-War and 60.8% post-War. These figures are similar to those given

by Clouston, Kraepelin and Bevan Lewis.

An interesting feature in comparing pre- and post-War figures is the great increase in the lactational factor, from 16% to 28.2%.

It is recognised that inanition of the mother along with prolonged lactation produces a state of nervous exhaustion when morbid mental symptoms may erupt. These states are commonly associated with poverty, and it follows that the post-War social distress has especially affected this portion of the reproductive cycle. It shows that in a period of more favourable economic conditions a considerable proportion of women might have weathered the storm.

In regard to the types of symptom complexes exhibited it is noticed that nearly every form of psychosis is represented, including the organic psychoses as Dementia Paralytica. This incidentally excludes the idea that there is ever any special reproductive psychosis, and only emphasises the fact that the exercising of this function is a potent precipitant of any latent tendency to the development of morbid mental states.

Even the short, delirious, confusional type seen early in the puerperium cannot be regarded as specific, as it presents few points of difference from traumatic or toxic delirium.

That the organic psychoses such as Epilepsy and Dementia Paralytica may show for the first time is impor-

tant. Out of 74 cases there were five of Epilepsy and three of Dementia Paralytica, the symptoms first manifesting themselves in the gestational and puerperal periods.

In the case of Dementia Paralytica this suggests that, though Syphilis is the essential factor, physical exhaustion and psychical disturbance must also be considered as etiological factors. Then it is noticed that Dementia Praecox is represented, and that reproduction may cause, or at least bring on, one of the most unfavourable and least curable of mental disorders is significant of the importance of the sexual function in the etiology of mental disease. The commonest types represented were the Manic, Melancholic and Confusional in accordance with the general predominance of these forms.

With regard to the distribution of these varieties during the puerperium the Manic and Confusional came first, 31% each. Melancholia was seen in 26% of cases. On the other hand during lactation the Melancholic variety predominated markedly, being 52%. This again is in accordance with general findings.

During pregnancy Mania was more common than Melancholia, and Epilepsy manifested itself for the first time in three out of nine cases.

Primiparity was found in 47% of cases, confirming the established fact that the novelty of the reproductive

experience is a profound factor. Clouston gives the figure for primiparity as 25%. This discrepancy may be accounted for by the early and improvident marriage which is so common in this class of patients.

Sixty-six per cent. were first attacks, but that 34% should be second, third and fourth, and even fifth, attacks, shows that there is some tendency to recurrence, and that a mind once diseased is liable to relapse should pregnancy occur. In the case of lactation only 14% were primiparae, showing that the greatest factor here is not the immediate effects of one pregnancy, but the more remote exhausting effects of repeated pregnancies along with other exhausting factors.

AGE PERIOD.

In pregnancy the greatest age period was from 26 to 31 years suggesting that it is the relatively elderly woman who has difficulty in making the physical and mental adjustment which occurs with gestation. The puerperal cases showed the majority at an earlier age, from 21 to 25 years whilst the lactational showed at the age period of 26 to 31 with a rise from 36 to 40 years.

It is noticeable that the lactational varieties appeared mostly in the elderly women who seem to be more prone to exhaustion.

FREQUENCY relative to NUMBER of CONFINEMENTS.

The question of the number of women who develop a psychosis in connection with reproduction relative to the total number of confinements is difficult to estimate accurately.

First, the births recorded do not give the number of confinements, owing to plural births, abortions, etc. Then only the poorer class of patients are admitted to the Borough Mental Hospital.

A rough estimate, however, would give the figure as one in six hundred and fifty confinements. In actuality the frequency is probably much greater.

Text-books of Midwifery usually give the figure as one in four hundred. R.A. Jones in a paper read before the Obstetrical Society of London gives one in seven hundred of actual cases of insanity.

ETIOLOGY.

With regard to general etiological factors heredity is one of considerable yet debatable importance.

In 43% of cases the definite history of mental disease in the family was obtainable. It is notoriously difficult to obtain accurate family histories from relatives. This figure, therefore, is probably less than it ought to be, yet it is definitely higher than the general figure observed

for all forms of mental disease. That women with a bad family history are liable to breakdown (mentally) at some period of their reproductive activity must be remembered when the social aspects of marriage are considered.

Histories of frequent and rapidly following pregnancies, abortions and miscarriages, were found in 27%.

Definite physical factors were extremely common. These were Endometritis, Mastitis, Heart Disease, Tuberculosis, Asthma, Anaemia, Albumenuria, and organic nervous diseases.

Practically every case showed some very definite physical disability.

Emphasis, therefore, must be laid on these physical factors which form a foreground to the development of the disease when there is already a hereditary background.

Illegitimacy was found in 6.7% of the cases, and this figure is very low in comparison with Clouston's figure of 25% for the City of Edinburgh. This, however, is in accord with the fact that illegitimacy is much more common in Scotland than in England. One may note in passing that the marriage rate is much higher in England than in Scotland, (England 507, Scotland 411, average for 1907-1914). The illegitimate birth-rate for West Ham for 1924 is 2.75% of births. It is also an observed fact that among the lowest strata of the population, with poorly developed ideas of social and moral responsibility, marriage is common and

takes place at an early age. This is the factor that reduces the illegitimacy rate.

SPECIAL MENTAL SYMPTOMS from a SOCIAL POINT OF VIEW.

The impulse to self-destruction is an important symptom in the abnormal states of reproduction. It occurs in no less than 26% of cases. Homicidal tendencies towards children occurred in 5%. Bevan Lewis gives 25% as being actively suicidal, and 47% as being impulsively dangerous.

Here again the social side presents itself. No matter what the philosophers' apologies and justifications are, (on the ground of Nature cutting short a diseased stock), Society is repugnant to the idea of destruction of Life - in times of Peace at least.

TERMINATIONS AND PROGNOSIS.

With regard to the terminations of all forms, 60% were discharged recovered, 23% were discharged relieved. This is an extremely high percentage of recoveries for any form of mental disease, and testifies to the transiency and favourable nature of the disorders. Bevan Lewis gives a general recovery rate of 80%

Those who became chronic, or were transferred unlikely to improve, amounted to 13.5%. The mortality rate was 4.5%. Deaths occurred only in relation to the puerperal phase.

The results in relation to the special forms showed the greatest percentage of recoveries occurred in the puerperal variety. On the other hand six out of the twenty-one lactational cases, or 28% became chronic.

From the prognostic point of view the duration of the attacks of the recovered and relieved cases has to be considered.

This important fact emerges, that 71% of the recovered cases were discharged within six months. Only 2% were discharged after the disease had lasted two years. With the lapse of time the possibilities of cure diminish, which, with the exception of Melancholia, is the rule in all other forms of mental disorder.

CONCLUSIONS.

- (a). That, bearing on the whole question of mental disease, environment, moral and physical, with the related general economic conditions, is important.
- (b). That, illustrating the physiological principles of lessened resistance and a period of depression following excessive activity, mental disorder often follows.

This is borne out, not only individually, but with a large social group. The great output of energy with a severe emotional expenditure resulting from a national

crisis was succeeded by lessened resistive powers to mental disorders.

- (c). That any form of mental disease may erupt during the exercising of the reproductive function, and especially that serious forms such as Epilepsy, Dementia Paralytica, and Dementia Praecox, may show for the first time.
- (d). That diseased Heredity is important.
- (e). That the striking predominance of physical factors, the frequency of primiparity, and histories of previous attacks must be noted.
- (f). That mental disorders most frequently occur at the puerperal period, and that recovery is most rapid in these forms.

The lactational disorders occurred in elderly women who had borne several children. In such cases there is a tendency to chronicity.

- (g). That suicidal and homicidal tendencies are frequent.
- (h). That the general prognosis is more favourable in the psychoses where reproduction is the stimulating factor than in any other type of mental disease.

S U M M A R Y.

In women the exercising of the reproductive function stands out prominently in causal relation to the onset and course of the mental disorders arising in the epoch of sexual activity.

Women who are the progeny of a hereditarily tainted stock are exceedingly prone to manifest mental abnormalities during the processes of childbirth. The hereditary influence may function in two ways. Firstly, where there is a strain of mental deficiency in the parents the offspring's inheritance of vital energy is insufficient. There is no reserve for the essential anabolism and katabolism associated with the gestational state. In such women the psychosis that results is likely to be of the degenerative types such as Dementia Praecox or Epilepsy. Secondly, where the parents are neurotic the subversive influence acts by producing a pernicious childhood environment, thereby conducing to the development of a psycho-pathic personality.

Such women frequently manifest neurotic symptoms in early life, and being unable to make the psychical adaptations to reproduction, suffer a psychotic outburst of a Confusional or Manic nature.

Analogous to this, is the transient psychotic attack to which a neurotic is sometimes subject when some form of psycho-therapy is attempted. Such an individual

appears to be unable to make adjustments called forth by the treatment and takes refuge in a psychosis of a transient nature which is often followed by a remission of symptoms. The adjustments necessitated by the pregnant state are analogous to those called forth by the psycho-therapy. In such women the psychotic eruption associated with reproduction appears to have, ultimately, a beneficial action and stimulates the psyche to rid itself of the neurosis and make fresh attempts at satisfactory adjustments. The prognosis in such cases assumes a very favourable note. The possibility of a second attack is remote, and the probability that the neurosis will disappear is considerable. Child-birth, though it is fraught with danger to the psycho-pathic woman, may, by disrupting the morbid personality, be the turning point of her mental life. From the ruins of the faulty mental make-up may arise a well-balanced personality able to react smoothly to the problems of existence.

Although reproduction may be regarded as the directly causal precipitant in most of the disorders of this period it must be viewed merely as the dominating and outstanding factor in a multiplicity of etiological influences which attack the psyche in varied and esoteric ways.

Among these etiological factors, physical morbidities are of great significance. They may determine the onset, modify the course, colour the mental symptoms, and suggest the prognosis. They play their part in the

psycho-pathology by producing a fatigue of the nerve cells. This may occur by depriving the cells of an adequate supply of nutriment or from the direct action of toxins.

The increased call on the endocrines by the gestational state may find these organs unable to respond. The endocrine balance will be upset, metabolism unbalanced, and the nervous system deprived of the harmonious co-operation of the hormones.

Psychical etiologi- cal factors attack the psyche through emotional channels mainly, and may function by producing a susceptible soil, or by directly contributing to the outbreak. Sexual and social maladjustments act in the former way, environmental traumata with emotional shocks act in the latter.

In the actual mental symptomatology the almost universal occurrence, either persistently or occasionally, of the emotional state of anxiety, demonstrates the pathologically aroused emotion of fear which plays an important part in the psycho-pathology.

The nature of the delusions, hallucinations, and illusions, is influenced by the various changes in the reproductive organs and overshadowed by them.

Confusion is the hall-mark of brain fatigue, or of the action of toxins on the brain cells. It is always accompanied by physical morbidities and exhaustion, and is usually a transient state.

The modifications of the Manic and Melancholic syndromes show their origin from and relation to the activity of the reproductive function. The rapidity of the decline towards dementia in most of the cases of Dementia Praecox reveals the profound relation of reproduction to the onset and course of such disorders. This may be symbolic also of an atavism in a degenerate type.

'Biologically speaking, when the aim of reproduction is fulfilled individual life should either cease or approximate to a close'. To this, in part, may be ascribed also the frequency of occurrence of the suicidal impulse.

The occurrence of a comprehensive insight into Melancholiacs and to a lesser degree in Maniacs and recovering Confusionals suggests a knowledge not unconscious of their reproductive functional incompetence. This insight is a prognostic index, and a therapeutic guide.

The close relationship of the working of the mind to the functioning of the sexual organs is again revealed by the recommencement of the menses which follows mental improvement, and is associated with a restoration of the bodily economic harmony.

The recurrence of mental disorder in subsequent pregnancies occurs mainly with Maniacs and Melancholiacs. Such women have not fortified themselves against a relapse, but have contented themselves on recovery to drift into their previous incompetence and maladjustments.

Reproduction in such cases has acted probably as the excitant of a conditioned reflex.

Treatment aims primarily at rectifying physical defects, and ridding the mind of the morbid excrescences that constitute the psychosis. That accomplished, a re-birth of the personality is attempted. The patient must be physically adjusted to the possibility of another pregnancy and psychically to the environment in which she exists. The success of the latter is the criterion of all therapeutic efforts.

The various phases of the reproductive cycle produce their effect on the mind in slightly different ways. These differences are more of degree than of kind.

In the pregnant state it is the physiological adjustments which readily bring to light a latent tendency to disease. Temporary aberrations of mood and conduct are also dependent on the bodily changes.

In the puerperium it is the very sudden adjustments, the traumatic shock of labour and the pathological possibilities which combine to precipitate the mental disorders of that period.

Lactation, on the other hand, is the period where, though reproduction has already prepared the soil, the external environmental factors are of first importance.

With regard to the relation of reproduction to the actual types of psychoses all cases of Confusional and most cases of the Maniacal and Melancholic variety are

directly precipitated and caused by reproduction. These occur in psycho-pathic women of the neurotic type and are the most recoverable forms. After the attack environmental adjustments may be more satisfactory than ever before.

In certain cases of Dementia Praecox where the potential energy of the nerve cells is insufficient, reproduction directly precipitates the attack which would not manifest itself if pregnancy did not occur. In other cases of Dementia Praecox reproduction appears to be merely the final impulse to the outbreak of an inevitable psychosis. In the former type the immediate prognosis is fairly good, provided another pregnancy is avoided; in the latter case, however, the prognosis is universally bad and mental dissolution appears to be hastened.

In the case of General Paralysis and Epilepsy it is difficult to say whether these diseases are latent or whether the patient is actually psychotic. Reproduction may act as the precipitant of inevitable diseases, or act as an irritant coincident during their activity. The latter is unquestionably the case in patients suffering from a Manic-Depressive psychosis.

From these observations arises a classification of four types of psycho-pathic women who are liable to manifest a psychosis in relation to reproduction.

Firstly, there is the neurotic woman who has suffered from hysteria or neurasthenia and is badly adjust-

ed sexually and socially.

Secondly, there is the woman whose nerve cells are simply poor in quality but who would not develop a psychosis if pregnancy did not take place.

Thirdly, there is the woman in whom the psychosis is awaiting an excitant to become manifest.

Fourthly, there is the actual psychotic in a period of remission.

These types are conveniently summarised:

PSYCHO-PATHIC WOMAN.

<u>Neurotic Type.</u>	Confusional Manic Melancholic	<u>REPRODUCTION</u> directly causes psychotic state. <u>PROGNOSIS</u> immediate and remote good.
<u>Defective Quality of Nerve Cells.</u>	Dementia Praecox Epilepsy	<u>REPRODUCTION</u> directly causes a not inevitable psychosis. <u>PROGNOSIS</u> immediate fair; remote bad.
<u>Incipient Psychotic.</u>	Dementia Praecox Epilepsy General Paralysis	<u>REPRODUCTION</u> precipitates an inevitable psychosis. <u>PROGNOSIS</u> immediate and remote bad.
<u>Actually</u>	Manic-depressive	<u>REPRODUCTION</u> acts as an irritant coincident, and hastens mental dissolution.

To conclude in so far as the process of Reproduction necessitates changes in the physical and psychical organism and in so far as it threatens individual life

and brings into activity many conflicting emotions it may be regarded as an important psycho-pathological etiological factor in women whose equilibrium either from heredity or acquired disability is unstable.

MECHANISM OF THE PRODUCTION OF THE PSYCHOSES.

In dealing with the problem of the psychoses, attention is naturally most directed to the cause, or more probably the combination of causes. In the etiology of most psychotics it is difficult to fix with certainty a definite causal factor, but in the disorders previously discussed reproduction stands pre-eminently as the causal precipitant. In these cases a definite series of physical and mental changes, profoundly affecting the whole personality, has resulted in a variety of mental disorders.

That a more or less common agent is able to cause a variety of types of psychiatric syndromes is important. A specific etiological factor need not produce or be associated with a specific group of symptoms. There must be some innate tendency to the development of a syndrome determined by the fundamental make-up of the individual. The various psychological mechanisms functioning in a mind faultily equipped with the necessities of organised social life produce a special type of psychosis irrespective of the causal or precipitating factor. Stated briefly, the kind of psychosis is dependent on the intrinsic nature and quality of the mind and is only coloured and modified by the special etiological factors peculiar to each case.

Analogous to the factor of reproduction is the factor Alcohol. It is known that this drug may precipitate the occurrence of any variety of psychosis.

Hence to appreciate the fundamental origins of the psychoses the personality must be investigated.

Association with the mentally abnormal at various phases in their lives reveals the peculiar mental diathesis of these individuals (apart from the phenomena of their special diseases).

This is made manifest by a study of the personalities of recovered cases and also by the historical retrospects usually provided by the relatives. Nearly all such individuals have exhibited some peculiarity, eccentricity or lack of balance and control, cleverly concealed perhaps, but noticeable to close associates. The lives of many great men, who incidentally at some period of their lives have suffered from mental diseases, show clearly and vividly various morbidities of the personality. Strindberg, Nietzsche, Swedenborg and William Blake are a few notabilities whose autobiographical and literary compositions have revealed morbid personality traits in a most dramatic fashion. The importance of the soil in the development of morbid phenomena of the mind is relatively more important than the predisposing soil in physical disease. In mental diseases the personality, which includes the entire mental and physical make-up, i.e.,

temperament, disposition and character, is primarily at fault.

"Temperament is the complex resultant of many factors each of which is in the main natively determined, and though they are alterable by disease and the influence of physical environment, they are but little capable of being modified by voluntary effort. Temperament must be distinguished from disposition and character. The disposition of a person is the sum of all the innate instincts with their specific impulses or tendencies. Differences of disposition are due to the native differences in the strengths of the impulses of the instincts, or to differences in their strengths induced by use and disuse in the course of individual development. Character, on the other hand, is the sum of the acquired tendencies built up on the native basis of disposition and temperament with the social and physical environment under the guidance of intelligence." †

The above description of the fundamentals of the mind, the mental anatomy, helps to focus clearly in their true perspective how and where the various etiological factors in the production of mental disease function.

Heredity, in so far as it directly affects the temperament and disposition, produces a susceptible soil. Indirectly, by creating a neurotic atmosphere, it acts

† Social Psychology - McDougall.

along with the physical environment by conducing to faulty education and the development of vicious habits.

Physical diseases, toxaemias and traumata may cause temporarily or permanently a hyperexcitability or depression of the temperamental and dispositional trends.

In considering the human personality in relation to human activity, a most important force, "the will", must be kept in view. All responsible human action reveals the co-ordinating and directive force of the will. It is the determinant of activity which brings the body of the personality into the act. It is the executive of the personality.

"A man's acts are his own, only when he is himself in doing them, when they express his total character". Will implies deliberation and choice, and the importance of attention as a phenomenon of will is obvious when such a morbid state Dementia Praecox is considered.

"Failure in self-control is a common feature of mental disorder and this implies a failure of the will. It may arise from one or both of two conditions. On the one hand the overpowering intensity of a relatively isolated impulse may prevent the due evolution of the concept of self, even when this is fully formed and organised. On the other hand, the defect may lie in the degree of development which self-consciousness has obtained, or in organic conditions of a pathological nature which disor-

ganise the self and prevent the full development of its normal contents."⁴

Briefly, the will is a product of the conscious individuality of man, the reasoning animal, which produces coherent, co-ordinated activity.

It is the objective to show that the essential point in the mechanism of the production of the psychoses lies in the manner in which the will is rendered pathological.

Life is the continuous adjustment of internal relations to external relations. Existence means conflict and by this is signified the inhibiting tension produced by opposing desires. On the one hand are the egotistic, non-moral impulses of the unconscious mind, dependent on the needs of the personality and on the other the conventional, ethical and social impulses, dependent on the requirements of society. In the solution or evasion of a conscious conflict a reasoning process comes into action. Reasoning implies belief and judgment. Belief is primarily dependent on the evidence of our senses. The facts of perception, which are but the acceptance from objects of useful impressions, are utilized and grouped together according to the laws of logic. From these in turn, new laws, conceptions and theories are elaborated which are again applied to the

‡ Papers on Philosophy, James.

formation of new perceptions. Those are naturally profoundly influenced by what we perceived before. Thus many of our perceptions are necessarily surmises, suspicions or guesses which have only a relative bearing towards reality. Our senses are limited in variety and refinement and consequently our interpretations are correspondingly limited. At one time it was reasonable and according to the senses to believe that the earth was flat and that the sun moved round it. Refinement of man's senses disproved this reasoning.

Therefore reason dependent on the senses must be inaccurate, incomplete and subject to change.

The solution of a conflict by the application of such reason can only be regarded as a reasonable compromise.

Men may be divided into three classes: the supernatural, the normal and the abnormal. The normal man solves conflict by giving full rein to his reason which he may apply in a form of self-criticism. This reason is dependent on his senses which psychologically are inaccurate. Hence, as stated above, the solution is a reasonable compromise and so far as ordinary man is concerned he is conservative to his environment.

Then there is the type of man who, either from a superiority or inferiority of the personality, is mal-adjusted to his environment. The superior type suffers the discomfort of conflict from a knowledge of the

defects of the environment; the inferior type suffers from a veiled knowledge of the defects of the personality. In both these types the conflict is primarily conscious but, owing to the associated unpleasant tension and the abortive attempts of the conscious reasoning to solve the conflict, it is repressed to the unconscious. The banished conflict, however, cannot be presumed to be inert. It produces a fermentation from which is born a potential force, an innate corrective power which, if it becomes conscious, manifests the attributes and qualities of reason. This corrective force brought to being by the tension of mental conflict, may be conveniently referred to as "intuitive reason". It is an intangible principle, describable only in a negative manner. It is a force independent of hard facts, laws and theories. Ordinary reason utilizes the facts of perception, intuitive reason neglects these practicalities. It is an abstraction, an innate criticism with its source in the unconscious and accurate in its valuations of the psyche. Intuitive reason, originating from the primitive depths of the mind, may be regarded as one of the manifestations of the collective or phylogenetic unconscious mind; an elaboration proceeding from the élan vital. The object of the philosopher and the artist is to make more conscious and expressible this intuitive process. The philosopher in expressing his fundamental ideas utilizes contemporary scientific symbols; the artist utilizes the current con-

ventional symbols of his peculiar art.

Thus in the superior type, where one may presume an abundant mental energy, this intuitive reason becomes a conscious and manifest power, which urges the individual to alter his environment or to create something new. In the inferior type the intuitive reason enters consciousness and brings with it the intuitive knowledge of the personality defects. In the former the intuitive force may produce genius; in the latter the intuitive reason, with its knowledge of the personality defects, will conflict with ordinary reason's blindness of these defects, and this derived conflict must deflect or paralyse the will. Therefore according to the quality of the mind stuff intuitive reason is expressible either in the creative activities of the genius or, from its production of a derived conflict and consequently morbid will, by the manifestations of mental disease.

Conflict has thus a varied significance and produces varied mechanisms in different kinds of minds.

In the average or normal mind the conflict between the egotistic and social impulses is a conscious one, and in its solution ordinary reason aids one or other of the combating forces.

In the supernormal mind there is a consciousness of the defects of the environment; this mind will not tolerate the clumsy rationalisations of the average mind so the conflict between environmental defects and

the desire to rectify them is repressed to the unconscious. There the intuitive force is generated and, erupting into consciousness, becomes a powerful reasoning force, utilizing and reinforcing the ordinary conservative reason and driving the individual to creative activity.

In the abnormal mind the conflict resulting from a difficult adjustment due to a defect of the personality is banished to the unconscious to avoid disharmony. The intuitive force is thus originated. It brings a definite knowledge of the personality defects to conflict with the ordinary reason. If neither combating force overcomes the other, the conflict persists; the will is incapacitated and the sentiments and organised portions of the psyche lose their controlling guide and morbid mental symptoms arise. Should the intuitive reason prevail, then there will be a definite realization of the personal inferiorities and conscious efforts, aided by the intuitive force, made to rectify them. Should the ordinary reason prevail then the tension of conflict is avoided but the inferiorities of the personality remain and with these the potential mental disorder.

Keeping in mind the conceptions of personality and will and the nature of conflict in different minds, the theory of the mechanism of the eruption of the psychoses may be comprehensively stated.

There is primarily a morbid personality. In

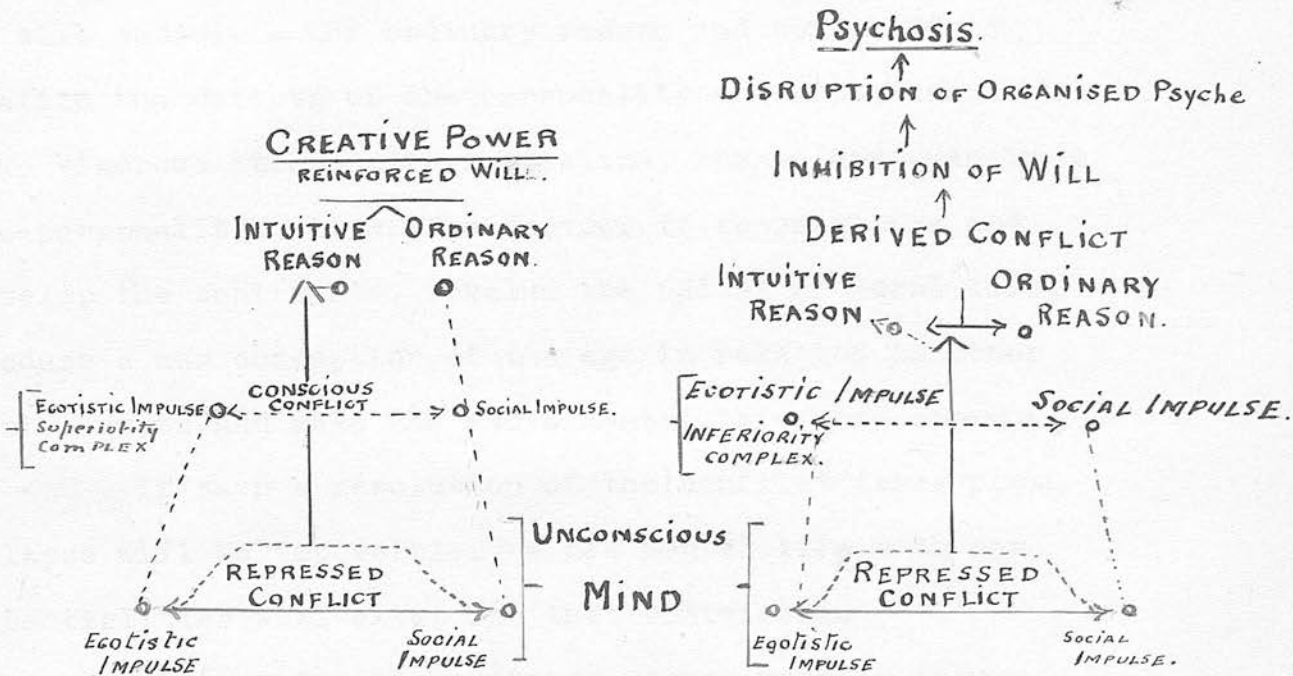
such a personality the instinctive dispositions are unbalanced. The sentiments are not highly evolved. Ordinary reason is poorly or faultily developed from defective education. Permanent defects may be due to organic morbidities or deficiencies of the nerve cells. Temporary changes may result from endocrinal disturbance, toxins, injuries or physical diseases. A difficult adaptation will inevitably arise and provoke a conflict. Ordinary reason endeavours to procure an environmental harmony but as it is a defective reason dependent on a defective personality its efforts are impotent. These endeavours may be likened to one shaking hand of the General Paretic trying to steady the other shaking hand. The distressing conflict is then repressed to the unconscious where it originates the intuitive force which erupting into consciousness opposes ordinary reason and affects the will. Either a complete paralysis or inhibition of will occurs, when the various mental processes freed from its restraint and guidance, act discordantly and result in a state of mental confusion; or a paresis of the will allows the dominant note of the personality to rule supreme and unrestrained.

This is assumed to be the fundamental basis of the mechanism leading to the eruption of the psychoses.

This theory may be diagrammatically represented

SUPER-NORMAL MIND.

ABNORMAL MIND.



The results of the conflict must be followed.

Either it persists and necessarily the accompanying mental morbidities will persist, or one or other of the opposing forces will prevail.

If, owing to the inherent weakness of the intuitive reason and the sheer weight of conservatism of the rationalizing reason, the latter prevails, the will will regain its potency and in proportion to the value of that reason will attempt to adopt the personality to the difficult situation which has now less novelty and is thus less terrifying.

The morbid symptoms will cease but the solution is only a makeshift. A relapse will inevitably occur

when new difficulties in life arise. If the intuitive reason be in the ascendant, with its energy and insight, it will subjugate the ordinary reason and compel it to realize the defects of the personality and stimulate it to make vigorous attempts to revitalize, change and emancipate the personality. It will endeavour to resynthesize and develop the sentiments, revalue the values of moral life, produce a new conception of the ego in relation to other social units and make the whole mental life more cohesive.

If such a resolution of the conflict takes place, relapse will be impossible. A new mental life with new potentialities will exist for that individual.

Victory for the ordinary reason means a return to the old personality with all its old dangers. Victory for the intuitive reason means an emancipating of the ego from the morbid personality and by a process of self-education an approach to what is considered an even-balanced nature is made.

Before considering the practical application of this theory, it is well to review the premises.

Primarily the overshadowing of the personality in its relation to morbid mental life constitutes the fundamental premise. The importance of the soil as a precursor of physical disease is universally recognised. In mental disorders it is the essential precursor. Secondly, there is the assumption of intuitive reason. This philosophic idea, originating from the Bergson method of

philosophy (or at least most practically applied by him) is considered a justifiable concept. Then the inhibiting tension produced by the derived conflicts of reason is presumed to incapacitate the will. The overwhelming importance of the will is recognised by all philosophers, especially James, Nietzsche, and Schopenhauer.

Lastly, the defective will combined with the defective personality allow the abnormalities of the temperament, disposition and character to escape, these constituting the phenomena^{en} of mental disease. Special symptom complexes arise from special inferiorities of the personality and are only toned and modified by the various etiological factors.

It may be stated that this theory does not in any way interfere with the various psychological mechanisms as projection, repression or over-compensation except to modify or rather enlarge the conception of conflict.

This theory can now be applied in the explanation of the various psychoses.

Physiological depression is commonly induced by some personal failure, a dissatisfaction with environment, a deprivation of affection and help, or a state of fear with regard to the future. The depth of depression is more or less dependent on the temperament and the reasoning power of adjustment. A very lasting cause of depression is a sense of dissatisfaction or of fear

arising from a half-conscious knowledge of the inferiority of the personality. In such a personality type, which feels its shortcomings, and which is dominated by the emotion of fear and shame, which mistrusts and is in continual fear of herd tradition, all adjustments must be difficult and painful. Conflicts will be inevitable, and as they produce an unpleasant tension they will be repressed. Meanwhile the intuitive force is growing in strength. Some especially painful complex is repressed. It acts as the final stimulus. The intuitive reason erupts; it produces an inhibiting tension with ordinary reason and creates an impasse. The will ceases to function; the mind is robbed of its directive force and consequently the inferiorities of the personality erupt undisguised and uncontrolled. These constitute the psychotic manifestations of melancholia.

Mania may be regarded as an over-compensation on the part of an inferior, melancholic type of personality. It is a faulty personality making a faulty adjustment. In such a melancholic the ordinary reason has prevailed and, in its attempts to rectify the personality, has adopted the spurious and counterfeit superiorities of the manic state.

In a personality ruled by fear, mistrust, suspicion and a sense of sexual inferiority, the culminating conflict produces an impasse of reason and consequently

a paresis of will. These abnormal tendencies escape control and guide conduct and thought - such a state is known as paranoia.

In a personality which is ill-developed, disharmonic and lacking in vitality a paresis of will is engendered which eventually merges into a paralysis. There is consequently a disruption of the whole personality and the condition is known as Dementia Praecox.

Toxic, traumatic and endocrinal disturbances produce a change, transient or otherwise, in the whole mental make-up. This is usually of the nature of a depression or excitation of the temperamental and dispositional trends. With the change in the intuitive recognition conflicting with the ordinary reason's ineffectual attempts to regain a balance, the paralysis of will releases the mind which, dependent on faulty poisoned sense organs, manifests a state of confusion.

In the neuroses the defect of the personality is less intense, less general, and sometimes only in one direction. There is consequently an impasse of reason and deviation of the will only in that special direction and when a special type of situation arises. In relation to most other events in life the individual makes satisfactory adjustments, but in a particular type of situation dependent on a limited defect of the personality, the conflict arises and thought and conduct are thus affected.

The method of resolution of conflict with the reinstatement of the hierarchy of the will is the crucial and far-reaching feature of this theory. In the recovered psychotic the resumption of a life of difficult and painful adjustments with probable relapses must be avoided by a re-education and revitalization of the personality. It is important that a sufferer from mental disease be made to realize that the personality primarily is at fault. A general spring-cleaning of the personality should be aimed at with the result that it can face the difficulties of life without taking refuge in the inertia of will which results in a psychosis. With an evolved self-regarding sentiment and a strengthened ego, difficulties will cease to be difficulties but will merely be incidents in life.

That a change in personality may occur without outside help can be exemplified by the life of the Swedish dramatist and novelist, Strindberg. At one period of his life he showed himself from his confessions to have been suffering from marked persecutory insanity. This is admittedly a serious and intractable mental malady, yet by the great potentiality of his mind, the source also of his literary genius, he was able to effect a cure of his disease and his subsequent writings showed how completely altered was his personality.

In relation to the ultimate and permanent resolution of mental disorder it is the personality with

its roots in temperament, disposition and character which should be attacked.

Physical defects, and endocrinal disturbances profoundly affect temperament and physical and chemical means should be adopted to correct these. One cannot hope to alter the character of nerve cells but it is known that training and habit can modify the relative strengths of the instincts. Sublimation should not be left to chance but the libido should be systematically and rigorously directed into the useful social channels, constructive and aesthetic. A degree of physiological introspection should be cultivated. A facing of the facts of life and a knowledge of man's true place in nature will tend to the development of a personality able to weather the storm of life and refusing to take refuge in the reactions that constitute the psychoses. It is to the early detection of the incipient psychotic which reveals itself by a badly developing and ill-balanced personality that preventive psychiatrists must turn. By adopting the educational method above outlined it may be hoped that the occurrence of mental diseases with its social crippling will be diminished.

No	NAME	AGE	M or S	FAMILY HISTORY	PERSONAL HISTORY	No of PREGN LABOUR	TYPE OF MENTAL DISORDER	ONSET	SPECIAL MENTAL SYMPTOMS	PHYSICAL CONDITION	RESULT	SPECIAL OBSERVATIONS & CONCLUSIONS
1	E.H.	33	M	Mother weak minded as a frequent criminal (Alcohol)	Admitted previously as a frequent case of paranoid type. 9 times pregnant in 9 yrs	9 th delivery in Hospital	Paranoid Dementia on a basis of intellectual defect	Gradually progressive for some years	Morbidly suspicious Sexual delusions of reference. Ill tempered. No Control	Robust Strong Woman.	Developing into a Chronic.	Pregnancy: an incident in the development of a Paranoid on the basis of a defective mind
2	A.B.S	41	M	No immediate morbid heredity	Always of a taciturn melancholic temperament Some intellectual defect.	9 th	Recurrent Melancholia	Pregnancy supervised on a reduced lactational Melancholia	Melancholia Great retardation. Delusions of Size.	General Malnutrition Anaemia	Improved towards end of pregnancy & was discharged	Exacerbation of Old lactational Melancholia on again becoming pregnant.
3	R.A.	22	M	Father: Alcoholic degenerate and weak-minded	Suffered from kidney disease and had convulsions Pregnant prior to marriage	1 st 6 months pregnant	Dementia Precocox	Symptoms most pronounced at second half of pregnancy	Indifference: Opathy Seclusive: Spiteful Typical D.P. occasionally Confusion	Albuminuria Anaemia Pre-Syphilitic miltumum. -ve Wassermann B	Removed by Relations were improved	Bad heredity: Physical disease: precipitate Simple Dementia Praecox on basis of mental deficiency.
4	A.P	26	M	No family history of disease or Intemperance	No history of Syphilis	3 rd delivery in Hospital	Dementia Paralytica	Evilic and uncontrolled conduct early in pregnancy	Depression: anxiety Unbalanced. Insultatory Delusions	+ve Wassermann CSF Clinical signs of Dementia Paralytica	No improvement after confinement. & deteriorating	Symptoms of Dementia Paralytica precipitated by Pregnancy

Cases in relation to Puerperium

5	L.A.D	33	M	Father intemperate in drink	Had chorea and rheumatic fever at age of 11 yrs defective heart since	1 st Easy and	Confusional	Shortly after labour	Confusion: Anxiety Insomnia Suicidal.	Anasarca Edematous Albuminuria -ve Wassermann	Rapid recovery on amelioration of heart condition	Importance of organic background Prognosis good when this is remediable
6	E.A.O	29	M	Mother: Brother & Sister: said to have suffered from Neurasthenia	Suffered from Neurasthenia Sexually frigid Maternal fixation	3 rd Primative Birth	Manic	within 24 hrs of birth	Primary stuporose then showed typical manic excitement.	Slight Exophthalmos Breaust's tenders marked oral sypho and canis	Acute - 2 Wks Subacute - 12 " Recovery.	Faulty Sexual adjustment Would to idea of pregnancy Premature birth in an unbalanced egocentric type.
7	C.B	34	M	Mother had fits Aunt Insane	Deaf since birth. an attack of Melancholia 6 years ago, partial recovery: Married 9 yrs. 8 children	9 th Easy labour	Melancholia Recurrent with Tabes D.	3 weeks after confinement	Melancholia with self abatement ideas trace of Confusion.	Physical signs of Tabes Dorsalis + Wassermann CSF Anaemia	Mental symptoms alleviated Physical unchanged	Psychic inheritance mind generally defective: frequent pregnancies: Bad environment: Tabes + combination of mental & physical factors
8	J.L.D	38	M	No history of Family Insanity	Had 7 children in rapid succession. 4 yrs ago acute Melancholia 1 yr ago. Acute mania	4 th Easy	Manic Depressive	Had transient attack of Mania during pregnancy soon after birth had another attack in Puerperium.	Typical Mania with some Intellectual clouding.	Insanition Exhaustion Extra-ordinary constipations	On treatment rapid recovery but some imperfection of mind left	Child birth merely a factor in mind - Depressive Psycho but tendency towards some degree of Dementia

No	NAME	AGE	M OR S	FAMILY HISTORY	PERSONAL HISTORY	No OF PREG	CHARACTER OF LABOUR	TYPE OF MENTAL DISORDER	ONSET	SPECIAL MENTAL SYMPTOMS	PHYSICAL CONDITION	RESULT	SPECIAL OBSERVATIONS & CONCLUSIONS
9	D.B.	24	M	Mother neurotic	Sexual difficulties owing to impotency hyponer, causing anxiety, nervous in early married life	1st	difficult, instrumental	Confusional	within 24 hrs of confinement	Compulsion: Anxiety Had one true Epileptic fit.	Uterus: Easy soft Hemorrhagic discharge Retroversion B.P. High	Physical symptoms relieved then rapid improvement	Primip: Sexual difficulties of early married life Severe labour Good Prognosis
10	R.R.	27	M	Father Epileptic	Attack of Melancholia at age of 16 yrs	1st	Relatively easy	Dementia Praecox	17 days after confinement	Reactive: Silly talkative: Real mood one of indifference Impulsive: Spiteful Sullen: Retent.	Onset: Malnutrition	Appears to be developing into a chronic	Early attack supposed to be Melancholia revealed to be by slices of reproduction to be a true Dementia Praecox
11	EMA	22	M	Several members suffered from Pathosis.	Always delicate sensitive: emotional and lacking in vitality & resistance	1st	Relatively easy for Primip	Simple Confusional	Shortly after labour	Compulsion: Anxiety Anxiety & apprehension Deluded.	Moderate state of Physical health	Cleared up in about 1 month Early insight Discharged in 2 mths	One individual Congenitally unequal to the stress of Child-bearing
12	L.W.	30	M	Is the off-spring of an incestuous union of a Brother & Sister: Also Pathosis	(A degenerate type deaf) with 8 congenital Had Confusional attack 4 yrs ago one miscarriage	5th	No difficulty	New conforms to Dementia Praecox.	10 days after labour	Blank: Confused Reactive: Impulsive outbursts erratic: Seclusive	General Debility	Appears to be developing into a Chronic. No sign of improvement	"Simple Confusional" revealed by Pregnancy to be a Dementia Praecox in individual with very bad family history
13	AMM	29	M	No history Husband demented	Married life unhappy 4 Pregnancies in 7 yrs: all difficult labours. Erysipelas recently	7th	Contrasts with 1st	Mania	Shortly after labour	Some degree of Psychic Motor Excitement in early stage some moments of anxiety	Anemia Slight degree of Chronic Endometritis	Has lapsed into a state of Chronic Mania in 18 months	Note occasional surge of anxiety in an otherwise typical Mania Pregnancy mostly the precursor of a Chronic Psychosis
14	L.N.	29	M	No history of Family disease Husband neurotic	one miscarriage one still-born child Had attack of "Confusional" after 2nd pregnancy made good recovery Always of very limited intelligence Pregnant prior to marriage	3rd	Easy	Confusional	Shortly after labour	Compulsion and anxiety deluded and hallucinations Suicidal.	Acute disease slight features of complications	With Physical improvement rapid mental recovery within 3 months	Women with good Agency but heart disease congenitally physically & mentally unstable
15	L.D.	23	M	Mother and father weak-minded Husband. half witted	Always of very limited intelligence Pregnant prior to marriage	1st	Easy	Dementia Praecox	Gradual onset after labour	Great apathy: Sullen outbursts occasional anxiety	Poor Physique	Shewed no sign of improvement after one year	Typical Dementia Praecox superimposed on Congenital Mental Defect precipitated by Reproduction.
16	L.B.	44	M	Collateral insanity	Has had 13 Pregnancies Domestic worries Had attack of Melancholia 2 yrs ago: Practice feeble-minded	14th	Easy	Recurrent Melancholia	From 10 to 14 days after labour.	Great Depression Self-accusatory Delusions Suicidal ideas.	Poor general health Very high B.P. 160. 180	Return to average after 6 months	Pregnancy as a directly exciting cause of a Recurrent Melancholia and waked by frequent pregnancies
17	V.A.F.	28	M	Mother: neurotic type Sister had convulsions	Chorea in childhood of a nervous disposition Maternal fixations Sexual life not too satisfactory	1st	difficult, instrumental	Confusional	Within 2 or 3 days of confinement	Compulsion: Anxiety and hallucinations Delusions: Self-accusatory Suicidal	General health good	Removed after 4 months Relieved	Anxiety Confusional type in badly adjusted woman with psychopathic personal & family history.

No	Name	AGE	M or S	FAMILY HISTORY	PERSONAL HISTORY	No of Preg. in Labour	CHARACTER OF LABOUR	TYPE OF MENTAL DISORDER	ONSET	SPECIAL MENTAL SYMPTOMS	PHYSICAL CONDITION	RESULT	SPECIAL OBSERVATIONS AND CONCLUSIONS
18	MMW	24	M	No history	No previous illnesses of a kind retaining disposition	1st	Normal-mental	Acute Melancholia	14 days after confinement	Acute Depression Suicidal. Self-abasement ideas anxiously hallucinated	Good. No evidence of Disease	Recovery without 6 months	Simple Melancholia after a difficult labour in a woman with Superiority Complex
19	EAA	21	M	Father and Mother eccentric and appeared weak-minded Husband feeble minded	Marrid at age of 14 years Asymmetry of face and ears slurring voice A congenital feeble minded person	2nd	Easy	Dementia Praecox	Before & after confinement has been mentally ill	Typical Hebephrenic Dementia Praecox	Physically Degenerate	Has become a Chronic after 2 years	Dementia Praecox precipitated in a feeble minded person after 2nd pregnancy.
20	S.A.B	29	M	Sister had fits	An Epileptic type Fits commenced after 1st confinement at age of 18 years	3rd	Easy	Epilepsy	after confinement accentuated	Great Confusory Fits: Stupor Semi-delirious Two hours of fits	Typical Epileptic in physique Rather feeble on Admittance	Chronic Epileptic evolving towards Dementia	Case of Epilepsy in a degenerate person: Commencing at 1st confinement; accentuated by subsequent pregnancy & gradually leading to a state of mental impoverishment

Cases in relation to the Lactational Period

21	E.F	40	M	Father Alcoholic History of Phthisis	Insipid Melancholia 17 years ago Has had 6 children domestic worries death of child: Overwork	6th	Easy	Recurrent Melancholia	about 6 months after confinement	Attempted Suicide Great depression anxiety Delusions of Sins	Great Exhaustion ulcerated stomach from swallowing Milk Pyrexia feeble dilated heart	After. is showings signs of recovery.	Lactational Melancholia in an exhausted woman with bad heredity External factors however not important
22	MAJ.	25	M	No history of Family Insanity or Intemperance	Suffered from Convulsions when a child when nursing last child it developed Meningitis and died.	2nd	Easy	Acute Melancholia	about 6th month after confinement	Anxious agitated Melancholia Refusal of food Insomnia. Suicidal and hallucinations	Some degree of Malnutrition. Exhaustion.	after 3 months No sign of recovery but Prognosis fair	2. pure Melancholia in an enfeebled woman precipitated by death of child while nursing Prognosis possibly better than that of ordinary melancholia in women.
23	M.R.T	27	M	Father feeble minded congenital life unhappy Home surroundings poor.	Always has been of a worrying apprehensive disposition no serious illnesses previous by Two children dead	3rd	Easy	Hypochondriacal Melancholia	3rd month after labour	Depressed; agitated Anxious. Hypochondriacal Suicidal	Marked Albuminuria Gastric lactational along obstinate Constipation	Physical state improved but no corresponding mental change. no. commenced Bad Prognosis	A Chronic type of Melancholia in lactational period likely to be of long duration, or become Chronic.
24	M.S	29	M	Sister's Sister Insane	Has had 3 previous attacks all in relation to pregnancy ? manic depressive type.	4th	Easy	Thought to be Manic depressive but now appears a typical Catatonic D.P.	Condition accentuated several months after confinement	Now shows signs and symptoms of Catatonic dementia Praecox.	No marked Physical change	Passing into a state of Chronic Dementia	Stemingly Manic depressive case revealed by stress of pregnancy to be really a case of Dementia Praecox