

Bancroft. (C. P.)

INQUIRY

INTO THE

CAUSES OF INSANITY

With Especial Reference to Prevention
and Treatment,

BY

CHARLES P. BANCROFT, M. D.,

Superintendent New Hampshire Asylum.

[REPRINTED FROM ANNUAL REPORT OF NEW HAMPSHIRE STATE
MEDICAL SOCIETY.]



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INQUIRY INTO THE CAUSES OF INSANITY

WITH ESPECIAL REFERENCE TO PREVENTION AND TREATMENT.

BY CHARLES P. BANCROFT, M. D., CONCORD.

In no class of disease has modern scientific investigation done more to assist the physician and ameliorate the condition of the patient, to overthrow old barriers of superstition, and to develop a rational and intelligent treatment, than in insanity. The history of insanity and its treatment from earlier times down to the present day is exceedingly interesting. Its pages are filled with the records of the grossest superstitions and the most absurd and childish fancies. For centuries insanity was not considered a disease; but the patient was supposed to be possessed of some evil and unclean spirit that had taken up its abode in the unfortunate person. Nothing short of exorcism could therefore relieve the patient, and hence the study and treatment of insanity did not properly belong to the province of the physician, but was relegated to the mummeries and incantations of magicians and witches who were oftentimes half crazy themselves, and who were supposed to be in some way invulnerable to the antics of these demons, and could thus deal with them with impunity.

In the early centuries of the Christian era the aid of the priesthood was invoked for the cure of insanity. Mental aberration being considered to be the result of a demoniacal possession, mankind very naturally were led to believe that the powers of good possessed some potent charm over the evil spirit world. Hence the earlier prescriptions for mental disease were composed of a curious mixture of popular drugs, holy water, and prayers. I give one such prescription in full, as it illustrates perfectly the

vague, uncertain notions about insanity in those early days: "Take the ewe hop plant, wormwood, bishopwort, etc.; put these worts into a vessel, set them under the altar, sing over them nine masses, boil them in butter and sheep's grease, add much holy salt, strain through a cloth, throw the worts into running water. If any ill-tempting occur to a man, or an elf or goblin night visitors come, smear his forehead with this salve, and put it on his eyes, and where his body is sore, and cense him with incense, and sign him frequently with the sign of the cross; his condition will soon be better." Another prescription for "Devil-sickness," as it was called, was as follows: "A mixture, compounded of many herbs and clear ale, was to be drunk out of a church bell, while seven masses were to be sung over the worts or herbs, and the lunatic was to sing psalms, the priest saying over him the *Domine, sancte pater omnipotens.*"

For many centuries these superstitious and very unscientific views concerning insanity obtained. This dark cloud of ignorance was only dispelled in very modern times. As you all know, Pinel was among the first to declare that insanity was a disease, and that it should be treated intelligently, like any other disease; that incantations, chains, and punishments were as unreasonable as would be the same treatment for rheumatism or pneumonia. It is singular to witness, however, how slowly the human mind parts with the gradually acquired traditions of the past, and how difficult a thing it is to obliterate the most manifest errors which have been transmitted from generation to generation, and have become incorporated, so to speak, in its very texture. Even at the present day traces of this same incomprehension of insanity still exist, and many find it difficult to understand that it is disease, governed by the same laws as other disease. They wonder why they cannot argue away a delusion, although they know well enough that the pain in a rheumatic joint cannot be dispelled by such sophistry. Some, less humanely inclined, think that the changed and perverted character is merely a general state of "cussedness," and that a good whipping would effect a cure, although they well know that such a course would not cure a cough proceeding from pneumonia. As a result of these erroneous ideas of the past, a tendency still exists to

separate insanity from the general category of disease, to place it in a sphere by itself, and to consider that when it does come, it is a misfortune not caused or controlled by the same laws that influence disease in general.

Until very recently it has not been thought necessary to introduce its study into the curriculum of our medical schools, and hence even our physicians have been led to believe that disease of the mind was a special province that did not concern the general practitioner. On the ground, however, that insanity is a disease of somatic origin, it becomes at once a subject of vital importance to the practitioner. For, by an intelligent understanding of the causes of mental disease, he may do much to prevent the appearance of the same. As a proper understanding of the causes of diphtheria and typhoid fever led to the prophylaxis of those diseases, so a correct knowledge of the causes of insanity may teach us how to prevent the most unfortunate calamity that can befall a man, viz., the loss of those higher faculties which are almost more to him than life itself. For these reasons I wish to discuss, as briefly as possible, a few of the principal causes of insanity, feeling that when the disease is approached from this etiological standpoint, we may arrive at a somewhat rational system of prophylaxis and treatment.

In glancing over the list of assigned causes of insanity in the admission book of any hospital, or at the table of causes in the asylum reports, one is impressed with their great variety and number. One sees in this list, overwork, overstudy, disappointment, grief, excessive joy, fright, anxiety, and almost every conceivable factor, social and moral, in the daily life of man. But it is also evident that these are not causes *per se*. Some other element must necessarily exist in the individual which renders him susceptible of being influenced. In estimating the above factors as causes, we have only half reached the truth. For if these were actual causes of mental alienation, then the entire population of the civilized world would become insane; for every man and woman is subject during a greater part of his life to these adverse influences, and yet how small a proportion are made insane by them. What, then, is this underlying and predisposing influence which renders one man liable to become in-

sane on the appearance of circumstances which upon another man seem incapable of producing any effect? I think we find, in large measure, the answer to this question in the *law of heredity*. But it is necessary to consider heredity in the largest sense of the word. Insanity itself, as a special morbid entity, is not necessarily inherited, but a certain constitutional vice *is* transmitted, which may lead to such an alteration of nerve force that insanity may be a result. And this is *the* one important point that I wish to emphasize: the causes of insanity lie deep down in the innermost life of the individual; they exist in the blood that circulates in his veins, and in the very structure of his nervous organism; they are incorporated in the very foundations of his physical and animal life, and only become apparent, perhaps, after years of dormant existence. In this respect, therefore, insanity is intimately related with all disease, and hence is a subject of as much concern to the general practitioner as other diseases which he has thought belonged more exclusively to his province.

The laws of heredity have been closely studied in the lower order of animals, and it is well known that the virtues and the vices of the parents are transmitted to the offspring. So in the human race good and bad qualities are transmitted. Vices of constitution tend to reproduce themselves in the children. All those factors which tend to lower the physical stamina of the individual, which tend to diminish the normal resisting power of the nervous system to shock and disease, all these factors are transmitted to the children. And it is especially those factors which tend to depress vitality, to disturb the healthy flow of healthy blood to different parts of the body, that are most apt to bring about in the descendants diseases of low vitality, such as scrofula and consumption, and also diseases damaging the normal and regular display of force in the nervous system, such as chorea, epilepsy, hysteria, and insanity.

We have, then, reached this first point in our inquiry into the causes of insanity: Mental disease and physical disease are closely related in their origin and development; both are transmitted from parents to children; and both are mutually interchangeable. A vicious constitutional taint may be transmitted, but not necessarily in its original form, — it may appear in the form of any one

of these allied diseases. Thus phthisis may appear in several members of one generation ; but in the next generation this form of disease may disappear entirely, and in its place insanity appear. The records of our insane hospitals present many cases which illustrate this. In some of these cases a faulty diathesis is established by the alliance of bad elements, and then we see phthisis and insanity appearing at the same time in one generation. I will mention, as illustration, two cases taken from our own state hospital records.

Case 1. A young man developed hysterical melancholia at an early age. He was seized with a morbid desire to destroy his life, but felt he must do it in a peculiar way. He wished to die in some place where his body could not be found, and hence would run away from home and climb trees with the wish that he might starve to death in that position and not be discovered. As he grew older, this same morbid desire persisted, and at the same time a destructive tendency developed itself. He would destroy his handkerchiefs, collars, and neckties, but rarely more than one article would be demolished in a week. He seemed to be possessed of a morbid fancy that during each week some one thing must be destroyed. At one time it showed itself in an impulse to break hens' eggs and kill young chickens. He always acknowledged that he did these things, regretted the fact as much as any one, would promise to do better, but seemed powerless to control himself when the impulse fairly seized him. Physically he was not strong ; he was of slight physique, inclined to anemia, digestion extremely poor, and lost his teeth from decay at an early age. His whole appearance indicated a lowered and depressed vitality. Any physician on seeing him would express the opinion that his was a constitution possessing feeble resistance to disease. Inquiry into his family history elicited the following interesting facts : His grandmother was insane and died of phthisis, she had a sister also insane ; this grand-aunt had two children both of whom were insane. His grandmother had four children ; viz., two males, one of whom had consumption, the other consumption and epilepsy, and two females, one of whom had consumption and the other, the mother of our patient, also had consumption. The patient, though delicate, has never developed phthisis, but at an

early age developed a weakened and disordered mind. In this case we see phthisis and insanity existing at the same time in one individual: we see the phthisis transmitted through one entire generation, and then, after lying dormant, as it were, in the race for a long period, we see insanity reappear without the phthisis. Probably at this point the race is extinct, for I have many doubts if the patient possessed the procreative power. Returning to this grandmother's generation again, we find that she had an insane sister, and this sister had two insane children, and the line is extinct at that point. It is also interesting to note that in one of the patient's uncles epilepsy appeared in addition to phthisis, thus showing the close relation that exists between diseases which are the result of low vitality and unstable tissue growth. The one disease reacts upon the other. Phthisis and insanity are both diseases of malnutrition; in both the great nervous centers are poorly nourished; and oftentimes one result of such defective nutrition is irregular and spasmodic action of these centers. Sometimes this is seen in marked and unusual eccentricity. The crank, so called, is a type of this class. Again this unstable condition of the higher nerve centers is seen in hysteria, which condition often involves the motor center as well as the more purely intellectual centers, and then we have hystero-epilepsy. The same condition extended a little farther produces real epilepsy, as in this patient's uncle. He suffered from a poorly organized and feebly nurtured brain, as well as a delicate constitution, and, as a result, epilepsy and phthisis both appeared. Fortunately for the human race, nature, by a wise provision, allows this deterioration to go only about so far, and at a certain point stamps all such vitiated blood with sterility.

I have already said that we sometimes see two persons united, one of whom comes from a race containing a record of insanity, and the other from a race presenting a history of phthisis or other disease of low tissue change. From what we know of the laws of heredity we should infer that the issue from such unions would be unhealthy, that they would present either phthisis or insanity to a marked degree. The facts in the following case, taken from the hospital records, fully sustain our supposition:—

Case II. A man fifty-eight years of age, a very active mer-

chant, broke down from overwork. He became depressed, and finally suicidal. He was possessed of an exceedingly nervous temperament and a very delicate constitution. He was asthmatic when well, but during the violence of his mental disturbance this neurosis disappeared. He presented the following family history: His maternal grandmother died of phthisis; she had two children, a son who became insane, and a daughter (the mother of our patient) who possessed all the elements of the phthisical constitution, seeming to be continually on the verge of consumption, and in addition was an extremely nervous person. She married a man (the patient's father) who was asthmatic, who became insane, and finally died from some organic disease of the nervous system involving paralysis. These two persons had thirteen children, four of whom only are living. As far as could be ascertained, four died of phthisis, one was epileptic, and a sixth, our patient, became insane. What a commentary is this upon the inevitable working of the great law of heredity! It shows us how surely nature places her seal upon whatever is faulty in the race, and protests against the continuance of diseased and unhealthy germs. Here is the record of the union of two diseased races, both of which should have been kept entirely separate; one tainted with insanity, the other with phthisis. In the issue of such a union we see appear phthisis and insanity and also an allied neurosis epilepsy. Somewhat contrary to the usual law, the first result of such a marriage was remarkably prolific: thirteen children, and yet how soon nature set her veto against the continuance of such a race. Out of this large family of children only four are living, and of these four one has been twice insane, and is in constant danger of death from insanity or phthisis. Another interesting point was developed in this case: during the height of his mental alienation his habitual asthma disappeared, and as his mind regained its normal balance, the asthma reappeared. In this case the asthma was undoubtedly a pure neurosis, dependent upon a faulty nutrition of certain nervous centers. When this evil influence was transferred to the centers of ideation in the brain, the former neurosis subsided for awhile only to reappear as the cerebral irritation ceased. We thus see how closely related is brain disease and constitution a

weakness,—the two being so closely allied that the one condition may alternate with the other in the same individual.

The records of the hospital contain many illustrations of this. One patient, a man of delicate habit, a sufferer from hip disease in childhood, passed into an incipient phthisis in adult life; as a last resort he was sent to a warmer climate where he completely recovered from the lung disease, but shortly afterward succumbed to an attack of insanity, which at last account bade fair to merge into organic brain disease. Another patient, a young woman, ceased menstruating at the age of thirty, shortly after developed insanity, and remained in that condition for over a year. She then contracted pneumonia which passed into phthisis, and while in this state her mind recovered its normal balance, but it is evident that her lungs are hopelessly diseased. Still another case: a man of middle life, in whose family there had been a record of insanity, had for years been afflicted with asthma. His mind finally became deranged; he suffered from an exceedingly severe attack of mania, and was actively homicidal under the influence of his delusions. During the period of his insanity, which lasted over a year, he was entirely free from asthma; he made a good mental recovery, but it was remarkable to observe how each day of mental improvement was accompanied by increased difficulty of breathing. When he left the hospital he was perfectly well in mind, but was scarcely able to walk or lie down on account of excessive dyspnoea. His insanity never returned, but he died within two years of phthisis. The records are full of such cases as these, in which mental disease and constitutional or neurotic weaknesses of some sort seem to vie with each other for the supremacy in some one individual. I merely mention these three cases at the present time to illustrate how intimately related is insanity to constitutional disease, and how often we must look for the real causes of insanity deep down in the very life-springs of the individual. The real cause of final mental disturbance in this or that person may be therefore incorporated in his very tissues, and increase with their growth. We often hear it asked of one who has become insane, "How could such an event have happened to Mr. A? he always seemed so well-balanced, his judgment so excellent, that he was the last person in whom I

should have looked for such an issue." The answer to this question is too often to be found in the long record of hereditary and constitutional weaknesses which do not at first sight appear. These factors have been silently at work, sapping and slowly exhausting his nervous system, until finally after some undue strain—a strain indeed which may have produced little or no effect on a constitutionally stronger individual—the crash comes, and in this especial instance it is the brain, and not the lungs or the knee-joint or the lymphatic glands that suffer.

We have seen how very intimately related are insanity and those diseases which proceed from states of constitutional weakness; how insanity, phthisis, epilepsy, hysteria, and other diseased conditions seem to become incorporated in the cell-growth of the individual, and are then transmitted from parents to children. I now wish to call your attention to a remarkable case which illustrates the close relationship of insanity to cell-growth and its variations, and which shows how a morbid element introduced into the cellular structure of an individual life may develop and be transmitted from generation to generation, and finally so modify and vitiate the original stock that it can scarcely be recognized.

Case III. A woman aged thirty-eight became feeble in health and finally depressed; at length delusion and typical suicidal melancholia developed itself. By referring to the family history we find the following facts which have been kindly furnished by one of your number. The maternal grandfather descended from old Puritan stock noted for its longevity; he himself and another brother attained the age of one hundred years. At eighteen years of age this grandfather contracted syphilis; he was very sick, and his health became much impaired; he had several attacks of corneitis which resulted in marked ulceration of cornea, and almost total destruction of eyesight. Notwithstanding the somewhat severe ravages made upon his system by this disease, his wonderful recuperative forces carried him to the advanced age of one hundred years and five months. He had eight children. No. one died from injury to head in childhood; Nos. two and three died young, and their history cannot be obtained; No. four, a female, died childless at seventy-eight years of age, of

malignant disease of breast and axilla ; No. five, a male, eighty-four years of age, but has always been very feeble ; No. six, a female, died of malignant disease of cervical and mammary regions ; No. seven, a female, the mother of our patient, has had malignant disease of jaw and angle of mouth which has yielded to caustic treatment, and she is alive at present ; No. eight, a female, is still living, but has carcinoma of face, and also of left breast. We observe that in this generation the members died somewhat younger, although the tendency to long life still persists ; we also note a remarkable perversion of cell-growth in the tendency to malignant disease seen in four members. Now let us glance at the issue of this second generation ; numbers five, six, seven, and eight, alone had children. No. five had three male children, viz., one male who had corneitis, and died of phthisis at forty years of age ; another male who had recurrent chorea ; and a third male who had chorea, and died of phthisis. No. six had two children, viz. : one female who was hysterical, then became epileptic, and finally died of encephaloid disease of ovary, at thirty-six years of age ; one male who had chorea for years, and finally recovered. No. seven had three children, viz. : a female who had hysteria which merged into hysterio-epilepsy, and finally into pure epilepsy, and who at last died at twenty-five years of age, of structural brain disease ; another female who is living, but who has hysteria of a grave character ; another female, the patient whom we have referred to as case three, and who was insane. No. eight had four children, viz. : one male who died of phthisis at thirty years of age ; one female who died of phthisis at twenty-one years of age ; a second female who died of phthisis at twenty-five years of age ; a third female who developed chorea at ten years of age, and then epilepsy ; at thirteen years of age phthisis appeared, and she died at twenty-two years of age. We observe in this third generation that the original longevity has disappeared, and that a large number of the issue have died between twenty and thirty years of age ; we also note that the general retrograde metamorphosis of cell structure has persisted, and instead of being confined to one or two types such as malignant disease and corneitis, we see that a more universal change has appeared, — a general constitutional deterioration has taken

place ; not only special organs and tissues have become impaired, but a constitutional vice has become established which is undermining the nervous system as well as the physical health of the race. We see the corneitis reappear in one member, and malignant disease in another ; but we also find phthisis in addition, and hysteria, chorea, epilepsy, and insanity. These last mentioned diseases show that the vitiated germs have appeared in the nervous system, and the usual results follow, viz., irregular and incoördinated action of the nerve centers, producing hysteria and insanity in the intellectual tracts, chorea and epilepsy in the motor tracts, of the brain. We observe, also, that this race is gradually becoming extinct. Formerly a hardy, intellectual, long-lived family, they have gradually deteriorated through three generations, until now all that represents this once sturdy Puritan ancestry are four females, two of whom have had malignant disease, one has grave hysteria, and the fourth has been insane ; and two males, one a feeble old man eighty-four years of age, whose children are all dead, and one who for years was subject to chorea.

It is a well-known fact that the virtues of the ancestors are often transmitted to the children, and that often certain especial qualities are transmitted, — thus, a talent for music and painting, and an aptitude for mechanical work, or mathematical skill, reappear in the children. It is also a fact that certain especial vices are transmitted, and that the identical manifestation of disease seen in the parents may reappear in their descendants. This is undoubtedly due to that natural tendency of the nervous system to develop a habit of action. Thus a patient who has once had mania is very likely to have a recurrence of the same, and it becomes very easy for the recurrence to become an established thing ; so it is with suicidal melancholia. A marked periodicity of diseased action is very characteristic of neuroses of the brain. When certain morbid tendencies are once fairly established, it therefore becomes a very natural and easy thing for them not only to reappear in the individual, but for them to be transmitted to his descendants. This is perhaps the most striking feature of all the laws of heredity. It shows how close is the relation between the psychical and physical life of man. Certain develop-

ments of the cell structure of the brain are established ; through this development peculiar traits of mind appear, so subtle and purely spiritual in their essence that it seems hardly possible that they can have an organic origin. And yet so intimately related are they with the organized growth of the individual that they do not die when he dies, but reappear in the race which he has created. I will mention a case in illustration of this in which a tendency to suicide appeared in different generations and branches of one family. Some of the members of this family were insane and eccentric without being suicidal ; but at a certain age there seemed to develop a disposition to suicide, which tendency was transmitted from parents to children.

The earliest progenitor in this family of whom we have any record was born in 1725. He married a woman who committed suicide. They had children, one of whom only has left any record ; this was a male and was himself healthy. But he left five children, viz. : No. one, who committed suicide ; No. two, who committed suicide ; No. three, who was apparently healthy ; No. four, who was insane ; and No. five, who became insane. In this generation we see insanity or suicide appears in every member but one. Now let us see what appeared in their children. No. one, No. three, and No. four alone had children. No. one married and had one daughter ; this daughter married and had one insane son. No. three had two children ; one son who committed suicide, and one daughter who, though sane herself, had one son who committed suicide. No. four had four children whom we will designate A, B, C, and D. A was healthy, B committed suicide, C committed suicide, and D was insane. Now let us look at their children. A and D alone had children. A had four children whom we will call E, F, G, H. Of these E was mildly insane ; F and G were very eccentric, so much so that many people called them insane ; H was healthy, married well, and had a healthy child. This branch of the family therefore seems to be gradually freeing itself from the morbid tendency. D, who was insane, had one child who was also insane.

In this family, as far as we can get at accurate record, there were, in four generations, seven cases of suicide and six cases of insanity without suicide, and I am informed that there were several cases

of suicide in the collateral branches of the family. Any commentary upon this remarkable race tendency is scarcely necessary. Certain morbid conditions of the nerve centers in the brain became established; and then for several successive generations these conditions were transmitted from parents to children. And so identical was the pathological state in all the individuals of this race that in the majority of cases precisely the same manifestations of disease appeared.

It is hardly necessary to mention any more individual cases, although the records of our own state hospital and many other similar institutions contain hosts of cases of like character. Now what are we to infer from such abundant records? It seems to me simply this: That insanity is a disease of disordered and deteriorated nutrition of the brain, and that this condition and the tendency to it can be transmitted from parents to children. It is well understood that in the animal economy cell-structure tends to repeat itself: certain well-established forms of cell-growth reappear in the descendants from the original stock. It is in this way that certain configurations of the face and body reappear in members of the same family. The same law undoubtedly obtains in the more intricate structure and development of the nervous system. On no other basis can we account for identically the same traits of character, moral and psychical, reappearing in successive members of the same family.

Now if a healthy and well-developed cell-structure is transmitted, it follows that a perverted and ill-nurtured cell structure must be repeated in the offspring. Among the lower orders of animals, breeders thoroughly understand this law, and are governed by it; they select only the healthiest types, and propagate a sound and healthy stock from them. In the human race the same law exists, but as little or no selection is practiced, we do not always reach the same results. Mind disease is brain disease; and a poorly nourished and poorly organized cerebral development is sure to lead to weakened and perverted state of mind, and this is only another name for insanity. The conditions of insanity, therefore, exist in the cell-structure of the brain; and this peculiar structure, whether it is the result of a malformation of cell-growth (in the same way that we can have a club-

foot or a harelip), or whether it is the result of a vitiated and deteriorated state of the blood, this peculiar brain structure can be transmitted.

The records of our state hospital show that about fifty-one per cent of the cases admitted are referable to a vicious inheritance. Fully another twenty-five per cent are undoubtedly due to the same cause, but their family history cannot be ascertained. The remaining twenty-five per cent cannot be traced to any form of hereditary cause. These latter cases are generally acute in character, and consist for the most part of attacks of acute mania, melancholia, and melancholia with stupor or acute dementia. These comprise, as a rule, those cases which terminate favorably, and form the majority of the thirty-three per cent of curable insanity. Insanity may, like any other acute disease, as pneumonia, or pleurisy, attack a perfectly healthy individual, — one in whom there is no previous record of scrofula, phthisis, intemperance, or any other depressing constitutional taint. Such a person under proper care and treatment generally recovers, unless exhausted with severity of the attack. And I think that carefully collected records would show that such cases recover as frequently as do other acute diseases occurring in otherwise healthy individuals.

If, then, nearly seventy-five per cent of the prevailing insanity of the present day is traceable to a hereditary constitutional taint of some kind; if generations of phthisis, scrofula, intemperance, and other depressing causes in the ancestry, have so deteriorated the blood and weakened the normal energy and equilibrium of the nervous system that insanity is a possible result in the descendants, what is to be done in the way of prevention? Many pessimistic writers might say, "Nothing can be done to prevent the inevitable;" and so would hold an altogether discouraging view as to the possibility of the prevention of the increase of mental disease. But it seems to me that it is possible to do something in the way of intelligent prophylaxis.

Of course the most obvious method of prevention would be the prohibition of the union of two unhealthy individuals. But it is also equally obvious that such a variety of artificial selection in members of the human family is not attainable, at least in

the present social status of the world. The passions and sentiments of the human mind far outweigh any physiological considerations that might be brought to bear against them. Admitting, then, the fact that unhealthy individuals will come together, and that deteriorated bodies and brains will be propagated as a result, what can be done to prevent the appearance of insanity?

In the first place it is necessary to premise our inquiry with the statement that insanity *per se* is not necessarily transmitted. The predisposition only may be perpetuated; the soil for its development may exist, but not necessarily so the disease. Herein lies our strong hope. Knowing the previous family record of the individual and his present constitutional temperament, we can so guide and warn him, can so surround him with favorable environments, and so repair a lowered vitality that we may avert an actual disease of the mind. We know the weak point, and we can fortify it against the disease itself. This is nothing more than the intelligent practitioner does in the case of other threatened disease. He gives the person threatened with phthisis tonics and fats, and sends him to a warmer climate; the rheumatically inclined person he bids dress warmer, avoid damp and wet and cold; to him whose grandfather suffered with gout, irritable temper and a cane, he prescribes a nutritious but non-stimulating diet.

In a very interesting and instructive book on "Insanity and its Prevention" Dr. Tuke says:—

"If it is disheartening to know that, while some men are proof against the invasion of this calamity, whatever folly they may choose to commit, others have the seeds of insanity sown in their nervous system, only awaiting a favorable exciting cause to make them germinate, it is none the less but all the more important that we should know what are the circumstances, what the conditions, calculated to stir up the slumbering embers into flames. There can be no doubt that, given in two cases precisely the same predisposition to insanity, the disease might in one case be kindled by an unwise, or averted in the other case by a wise, mode of life based on the principles I have endeavored to lay down. To this extent then, insanity is a preventable disease. Looking at the cases I have known, and regarding the causation

of their attacks from this point of view, — their preventability, — I can see a large number, who, under more favorable circumstances and a brighter sky, under judicious mental training, under a calm and regular instead of an irritating life, or free from habits and associations of a certain kind, might have escaped the perils of their unfortunate mental heritage.

I have seen this predisposition lighted up by speculation and consequent pecuniary losses and bankruptcy, by the misery of a homeless home, by a drunken wife, by the complete absorption of the affections in a child, and that child dying, by a course of excessive study accompanied by competition for honors, by evil habits, and by many circumstances, the avoidance of which would have left a fair chance of escape from an attack of insanity, had these individuals, conscious of the dangers into which they, with their proclivities, were running, shunned them.

Familiar, therefore, with the physiognomy of temperaments, the physician accustomed to observe their relation to mental disorder will not fail seriously to warn those who possess them, whether they betray signs of actually passing over the boundary line of sanity or not, to guard in an especial manner against overexcitement in some instances, much study in others, overstrain in all. He will often readily recognize the die in which this or that person is cast, and detect the peculiar mark on the metal, which the unskilled or unobservant fail to notice. He sees a combination, a grouping of mental and physical characteristics which experience tells him are apt to be associated with certain tendencies, only awaiting a sufficiently exciting cause to develop them, be it the exclusive search after gain, the indulgence in drink, and other passions, or in the absence of rational and healthy occupation."

This, then, is the conclusion at which we arrive: First, insanity is, in the majority of cases, a disease resulting from certain pre-established family conditions, certain proclivities and tendencies which operate as predisposing causes. Secondly, insanity is a preventable disease in just so far as we can remove these predisposing causes, or by a previous knowledge of their existence we can guide and warn the individual of impending dangers.

