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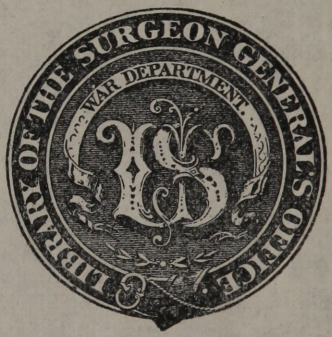

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DISEASES

OF THE

NERVOUS SYSTEM;

OR,

Pathology of the Nerves and Nervous Maladies.

A TREATISE OF

PSYCHOLOGICAL MEDICINE.

BY

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"Canst thou not minister to a mind diseased,
Raze out the written troubles of the brain,
And with some sweet oblivious antidote
Cleanse the stuffed bosom of that perilous stuff
Which weighs upon the heart?"—*Shakespeare.*

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PREFACE.

THE author has long entertained the opinion that a *popular* work on "Nervousness, or the Pathology of the Nerves, and Nervous Maladies," is a desideratum. Of technical works on this subject, intended for the medical profession, the name is legion. But he knows of no popular treatise for the general and unprofessional reader. In the following pages he has endeavored to furnish such a work to the public. Having made the cure of Nervousness a specialty throughout his entire professional course, and having had an enviable success in this specialty, he has, of course, drawn largely from his own experience in writing the following chapters. But he has had no hesitation in drawing on the experience of other practitioners as detailed in their writings, whether in the form of independent treatises, or as contributions to journals of psychological medicine, whether published in English, French, or German. It has always been his maxim to supplement and fortify his own experience by that of others. Never was psychology, or the science of mind, pursued with more fruitful results than it now is, in connection with physiology. The Nerves and Brain, which are the organs of the mind, demand as much study as the mind itself.

Psychology and Physiology now go hand in hand, and shed mutual light on each other. The subject of the Nerves, and their Diseases and Derangements, the writer unhesitatingly pronounces to be at this fast and eventful epoch, when life is condensed, as it were, the most important in the whole range of medical pathology. Mind and body are such intimate companions, that they sympathize, so to speak, with each other perfectly. If one is sound and buoyant, the other is ordinarily in the same condition, and *vice versa*. If the nerves, which are the organs of the mind, are healthy and vig-

orous, the mind is bright and hopeful. On the contrary, if the nerves are jaded, diseased, and unstrung, the mind is in the same state. Mental pathology is necessarily a sad record of human wretchedness and woe; for what torments are like those caused by "a mind diseased"? It has been the writer's aim to make his work interesting, as well as instructive. He has dealt with nervous disease in all its thousandfold and most perplexing forms and manifestations, and should know whereof he writes. Under the dread name of Nervous Disease, what an awful category of human ills is included! Insanity; suicide; narcotism; alcoholism; epilepsy; paralysis; softening of the brain; soul-crushing mental anxiety; "that strange melancholy," "which rejoiceth exceedingly, and is glad when it can find the grave," to quote from the Hebrew Scriptures; that utter wreck of the will and helplessness, which is the result of self-abuse, and which is a cause of a majority of the cases of nervousness and general debility; all these momentous subjects, of course, are fully and popularly discussed in the following pages.

One word before closing on the subject of special medical practice. The special medical practitioner, who, confident in his power of dealing successfully with the particular class of diseases to which he devotes himself, seeks, by all legitimate and proper means, to bring himself and his skill to public notice, must calculate beforehand on incurring the occasional sneers and unkindly criticism of jealous professional brethren. If such things can even annoy him for a moment, he has mistaken his calling. A professional man is either a public man, or he is nobody. If a physician has especial skill in treating, say, the diseases of the nervous system, the public want to know the fact, and ought to know it. In such a case. it is a duty to seek publicity, for it is a means of doing good. The skilful, special practitioner will have triumphs enough, in the long run, over those who sneer. He will oftentimes find such reluctantly compelled to avail themselves, and their patients in extreme cases, of his superior skill in his own particular province. In such cases he gets his revenge by affording the desired relief.

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THE NERVES AND THE BRAIN.

CHAPTER I.

INTRODUCTORY AND GENERAL REMARKS.

The barbarian, and the rude, ignorant European peasant, scarcely know that they have nerves. But civilization, culture, and refined artificial modes of life bring the nerves into almost fearful prominence. Few who live in cities, or come in any way within the vortex of our social life, have escaped occasional attacks of nervousness.* Is nervousness, then, asks a distinguished English writer on the physiology and pathology of the nerves, an inevitable condition of civilization, a tax we must be content to pay for our advantages; or can we free ourselves from its assaults without paying too great a price for the immunity? What is the malady and its cause, that we may know what the cure must be? And, first, have the nerves really anything to do with it, or have they borne the blame while other portions of our organization have been at fault? When we are in that excitable, tremulous condition, in which there is a morbid anxiety to labor, with diminished power of performance; when, without any definite ailment, we seem deadened in every faculty, while yet the least vexation is felt as an intolerable annoyance, — are we right in saying that it is especially the nervous

* *Vide* Hinton's works, whose admirable account of the nervous system has been summarized in the following chapter, — our limits forbidding extended and scientific details, which are always tedious and often unintelligible to the general reader, for whom we write.

system that breaks down? In order to answer this question, we must get some definite idea of that complex machine, the Nervous System, as it exists in man. Beautiful and mysterious as are its operations and results, its mode of action has been well ascertained, and is exceedingly simple. The nervous system is one of the chief characteristics of animal life, especially of the higher animals. By its means the various organs, which make up the body of an animal, are blended into a whole; and thus the animal is a unit or individual, while the plant always remains a mere bundle of more or less similar parts.

Through the nerves the body is acted upon by, and can react upon, objects that affect it from without, not only by a motion of the part immediately affected, but by the combined movement of many, and, it may be, distant organs. In this lies the primary need of a nervous system. It is in its simplest aspect merely a channel by which the affections of one portion of the body are enabled to call out the activity of another. Keeping this idea in mind, we shall find there is no difficulty in following, in their general principles, the structure or functions of the nervous system, even in its most highly developed and complicated forms. If we look at the human brain, we find that it consists mainly of a vast mass of fibres. Their number, tenuity, and variety of direction are so great that no skill has hitherto availed to trace them in detail, though their course has been pretty generally well made out. Emanating from the brain and spinal cord, long lines of fibres pass to each region of the body, and distribute themselves in a minute net-work, that, if we could see it by itself, would appear before us a perfect image of the body, all pure nerve. The fibres which constitute the chief mass of the nervous system are simple in their structure, so far as the microscope can reveal it, and present a very curious analogy to a telegraphic wire. Like the latter,

each nervous fibre consists of a small central thread (or tube, perhaps, in the case of the nerve, though the tubular structure cannot be demonstrated), surrounded by a layer of a different substance. The central thread (or axis) is of a grayish color; the surrounding material is of a glassy appearance, soon becoming an opaque white after death, and giving then the characteristic white appearance to the nerves. The fibre, consisting of these two portions, is included in a sheath, which isolates it. If we roll up a wax candle in paper, that will give us a rough illustration of the nerve fibre. The paper is the external "sheath"; the wax is the intermediate white matter; the wick is the central axis. It is most natural to believe that the analogy suggested by this structure is a true one, and that the white substance acts the part of the gutta-percha round the electric wire, as an insulating medium for the currents which travel along the central portion. But this is not proved. Probably, owing to the minuteness of the parts, it is beyond the possibility of experimental proof. For in man two or three thousand of these fibres would occupy but an inch in their largest part.

There is another kind of nervous matter, besides the fibres, and that consists of cells. The nerve fibres sometimes run into them; sometimes they pass among them without appearing to communicate. Cells of this kind form a thin layer over the surface of the brain, and its fibres for the most part have their origin from or among them. They also exist in large numbers in certain spots in the substance of the brain, and they are found within the spinal cord in its whole length. Wherever they are found they go by the name of gray matter, the nerve fibres being called the white matter. The fibres which constitute the nerves, strictly so called, are conductors, and they conduct to and from the cells. What, then, is the part played by the latter? But before answering this question, it is worth while to peruse

and note the extreme simplicity of form exhibited by this element of the nervous system. In the gray matter of the brain, we have arrived at the very highest organic structure, the great achievement of the vital force, the texture in which bodily life culminates, and for the sake of which, we might almost say, all the other organs exist. And we find a structure of the very lowest form. Mere cells and granules — Nature's first and roughest work, her very starting-point in the organic kingdom — strewn in a mere mass, with no appreciable order, over the ends of a multitude of fibres, and loosely folded up, as it seems, for convenient storage! This is what meets the eye. Is this the laboratory of reason, the birthplace of thought, the home of genius and imagination, the palace of the soul? Nay, is this even the source and spring of bodily order, the seat of government and control for the disorderly rabble of the muscles? Should we not have expected, when we came thus to the inmost shrine of life, and penetrated to the council-chamber of the mind, to find all that had before appeared of skilful architecture and elaborate machinery surpassed and thrown into the shade? But it is all cast away. Mechanical contrivances for mechanical effects! Skilful grouping and complex organization there may be for the hand, eye, the tongue; for all parts and every function where the mind is not. But where the spirit comes, take all that scaffolding away! The gray matter of the brain is very abundantly supplied with blood. What is the office of the cells or gray matter? The spinal cord of man is a series of groups of cells, giving off nerves on each side, and connected by communicating fibres with each other, and with the larger groups in the brain, which also give off nerves to the nose and eye, the skin and muscles of the face, and other parts. Thus, in man and all animals alike, masses of gray matter, the cells, are placed at the centre, and nerve fibres connect them with the organs of the body. It has been proved also

by the beautiful experiments of Sir Charles Bell that the nerve fibres are of two kinds: some conveying an influence from the organs to the centres, where the nerve cells are placed; and others carrying back an influence from them to the organs. So these groups of cells evidently answer to *the stations* of the electric telegraph. They are the points at which the messages are received from one line and passed on along another. They are called *ganglia* in scientific language. But besides this the cells are the generators of the nervous power. For the living telegraph flashes along its wires not only messages, but the force also which ensures them fulfilment. A nerve bears inward, say from the hand or foot, an impression, it may be of the slightest kind; but the cells are thrown into active change by this slight stimulus, and are thus able to send out a force along the nerves leading to large groups of muscles, and excite them all to vigorous motion.

In the above we have merely aimed at giving a general account of the Nervous System. The nerves are the special vehicles of will and feeling, hence their derangement is most calamitous. By them we see, taste, smell, hear, and feel. By them we command our limbs with the aid of the muscles. Hence the terrible character of nervous disease and derangement, which strikes at the very source of all our pleasurable activity, enjoyment, and conscious life. Diseases of the brain, of the spinal cord, of the nerve cells and of the facial nerves, and cerebro-spinal disease, compose in general terms the terrible bead-roll of nervous disorders. Under these heads come insanity, softening of the brain, epilepsy, hydrophobia, all kinds of paralysis, neuralgia; in short, all morbid affections, which are specially characterized by pain and dethronement of the mind. Fortunately for suffering humanity, Dr. Hammond, in his great work on Diseases of the Nervous System, is strictly correct when he says, that "in no

department of medical science has progress been more decided during the last decade, than in nervous affections." The writer of this treatise, with a most ample and gratifying experience in the treatment and cure of nervous disorders, is able fully to indorse the above assertion. Whether or not he himself has in his professional career contributed to this progress in the means of ameliorating the acutest human suffering, it is for his multitudinous patients to say. At any rate, he is willing to abide by their verdict.

Derangements of the nervous system are seen in the paroxysms of asthma and the seizures of epilepsy, in both of which affections the muscles are thrown into excessive contraction through a morbid condition of the spinal cord. Of a different order are the languor and feeling of utter disability for muscular exertion which creep over us at times. These feelings show that the nerve centres which preside over muscular exertion have become oppressed and sluggish, likely enough through want of proper exercise. Of a different kind, again, are tremblings of the muscles, or involuntary jerks and twitchings, and, in brief, all that condition known by the expressive name of "fidgets." What is the source of this irritability, which renders it impossible to keep the muscles still? We can answer in general that irritability means weakness. A physician of eminence compares it to the whirling motion of the hands of a watch of which the mainspring is broken. In our physical, as in our moral nature, strength is calm, patient, orderly; weakness hurries, cannot be at rest, attempts too much. Strength in the living body is maintained by the full but natural exercise of each organ.

The full access of all healthful stimuli to the skin, and through it to the nerves of sensation, is the first and chief condition of the healthful vigor of the nervous system.

Among these invigorating influences, fresh air and pure

water hold the first place. The great and even wonderful advantages of cleanliness are partly referable to a skin healthily active, open to all the natural stimuli, and free from morbid irritation upon the nerve centres of which it is the appointed excitant.

The state of general vigor which we call "Tone" also depends upon the healthy action of these nervous centres. It consists in an habitual moderate contraction of the muscles, due to a constant stimulus exerted upon them by the spinal cord, and is valuable less for itself than as a sign of a sound nervous balance. Tone is maintained, partly by healthful impressions radiated upon the spinal cord, through the nerves from all parts of the body, and partly by the stimulus poured down upon it from the brain. So it is disturbed by whatever conveys irritating or depressing influences in either direction. A single injudicious meal, a single sleepless night, a single passion or piece of bad news, will destroy it. On the other hand, a vivid hope, a cheerful resolve, an absorbing interest, will restore it as if by magic. For in man these lower officers in the nervous hierarchy draw their very breath according to the bidding of the higher powers.

A chief condition of keeping the nerves and brain healthy is to keep them in full vigor and in natural alternations of activity and repose. Muscular exercise has a most beneficial effect on a depressed or irritable state of mind. The bodily movement, by affording an outlet to the activity of the spinal cord, withdraws a source of irritation from the brain, or it may relieve excitement of that organ by carrying off its energy into a safe channel.

We see evidence of the same law in the delightful effect of a cheerful walk, and in the demand for violent exertion, which is so frequent in insanity. The power of the brain over the vital condition of the body is exerted through a

particular set of nerves, which have been called "the sympathetic system." They are somewhat smaller and simpler than the nerves of sensation and motion, with which, however, they are intimately connected. They are distributed to the organs on which life depends (the lungs, heart, stomach, etc.), and to the blood-vessels all over the body. Thus the condition of the brain is necessarily the key to that of the whole body, and its influence is universally paramount, both directly by its power over the heart and breathing, and still more profoundly by its indirect control over the supply of blood.

There is no mystery on the effects produced on health by excess of mental labor, or by long-continued cares, nor in the bodily torpor which attends a merely inactive mind. "Nervousness" naturally results from an overtaxed brain. The wonder is, not that it occurs so often, but that, amid the rude shock to which our life is subject, it is not more frequently experienced. If we would have our bodies healthy, our brains must be used, and used in orderly and vigorous ways. The torpid, unhealthy frame and languid circulation of the idiot are but an exaggerated instance of the unnatural torpor to which he condemns himself, who wastes his life in indolence, or consumes it in dissipation. To him Nature, indeed, has been kinder than she has to the idiot, — he does but abuse her bounty to become a worse enemy to himself.

The perfect health of a man is not the same as that of an ox or horse. The preponderating capacity of his nervous part demands a corresponding life. But the very causes which make the proper exercise of the brain especially needful, render its excess especially baneful. The signs of this excess, or excess combined with misdirection, meet us on all hands: in weariness, despondency, disgust, or causeless anger; in racking neuralgic pains, or gradual

decay of vital power, or in the insidious threatenings of serious disease. How could these results be guarded against, we ask. The answer can be but one. Health can no more be obtained without its price than anything else. Nature has forever forbidden it. The flame of life can neither be fed nor renewed with stolen fire.

The condition of rescue from overwork is rest and change, — fresh air, and the soothing influence of natural scenery, if they can be obtained.

One word, before closing these somewhat general introductory remarks, on the subject of cities, as our modern life is more and more concentrated in cities, which develop and intensify the nervous energy wonderfully, and by their manifold and constant excitements fearfully multiply nervous disease in all its forms. A distinguished author observes, that "the invention of towns were a pure gain to humanity, if due admixture of the country life can be secured." And to obtain this advantage for our laboring populations is one of the great tasks of our age, and one of the great problems for managers of railroad corporations in particular. Our physiology teaches us that the vice and misery of our great towns can never be successfully combated in the strongholds which they have made their own, and fortified for generations, — the courts and alleys where the poisonous atmosphere combines with all hateful sights and sounds at once to deaden and irritate the nervous sensibility. From the continued breathing of a vitiated atmosphere inevitably arises either apathy or a craving for intoxicating drinks; in all probability, each in turn.

On the other hand, the splendor and allurements of city life constantly acting upon the senses, especially of the young and susceptible, are calculated to produce nervous derangement, and prematurely use up those exposed to them. Indeed, modern civilization, with its splendid material tri-

umphs and manifold devices for comfort, luxury, and sensual enjoyment, grows ever more and more trying to the nerves, and has rendered completely unfashionable the plain, frugal, ascetic life of our ancestors. Hence it is that the medical practitioner, who contributes by his skill and ingenuity to restore a jaded and disordered nervous system, and check the spread of nervous affections, is emphatically a Public Benefactor.

CHAPTER II.

NERVOUS DISORDER AND THE TEMPERAMENTS.

A CAREFUL examination of numerous cases of nervous disorder has satisfied me that the study of the *temperaments* is absolutely necessary on the part of the physician who aims at even ordinary success in the treatment of disease. For instance, were we to treat four different persons, all suffering alike from the same nervous disorder, but all of them having different temperaments, with precisely the same remedies, without taking into account the peculiarities of each, or the effect of these upon the constitution, as well as the nature of the disease,— we should be as little likely to succeed in effecting a cure as would the mariner in reaching his destination, who steered in a direct right line by compass for the point which he wished to reach, totally regardless of, nor making the slightest allowance for, leeway, current, or any other disturbing causes. It is therefore as indispensably necessary that the physician take into account, not merely the general nature and character of the disease, but also the various concomitant circumstances, before he incur either risk or responsibility. It is the study of these circumstances, and the paying due attention to them, that constitute the accomplished and trustworthy physician; and those traits alone can ensure him success in practice. In the study of all disorders, we must take into account and carefully review both the history

of the disease and the history of the case. The first makes us acquainted with all the general phenomena and tendencies of the disorder, while the second brings us into relation with all those specialties which require peculiar modifications of treatment.

In the Nervous Temperament we find that the brain is large and well developed, and its energies and those of the nervous system are the most predominant, and take the lead over those of all the other organs. The features are

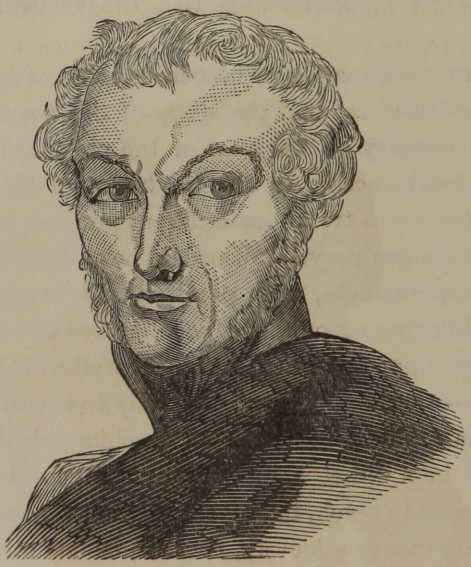

Fig. 1. Nervous Temperament.

sharp and prominent, the eye large and expressive; the mouth betokens intelligence, and frequently there is a full and intellectual forehead; the skin thin and transparent, with flossy, silky hair; the muscles small but well marked, with quick and active motions; the face generally pale, and frequently expressive of anxiety; the brain and whole of the nervous system in a high state of activity. Such persons are for the most part quick and intelligent, and highly sensitive

to every kind of impression; and they are readily excited and easily depressed. At one time you may find them enjoying themselves to the fullest extent, and in a very short time after, perhaps in tears. The dispositions of persons in whom this temperament predominates, are much modified by the circumstances in which they may happen to be placed. Confinement, especially if the occupation be sedentary, never fails to produce evil effects upon the constitution. Individuals of this temperament are highly sensitive to all those agents which act upon the nervous system. Such persons require to be treated with great care and delicacy.

Fig. 2. Lymphatic Temperament.

But in the Lymphatic Temperament, in which the abdomen is remarkably large and prominent; the brain dull and inactive; the body round and soft; action slow and heavy; skin muddy and flabby; circulation weak and languid; muscles soft, flaccid, and feeble, with great aversion to either

mental or bodily exercise, — we find the energies of every kind very feeble, indeed almost dormant. Thus we see that persons of this temperament differ materially in these particulars from persons of the former. Indeed, so little excitable are people of the purely lymphatic temperament, that it is not without the greatest difficulty they can be aroused, or induced to exert themselves in the smallest degree, while they are quickly exhausted when aroused to exertion. It is obvious that this inert temperament is not so liable to nervous derangement as the former, and when thus disordered, that it does not require the same delicate treatment as the other.

Persons of the Sanguineous Temperament differ widely

Fig. 3. Sanguineous Temperament.

from those of the Lymphatic. In the former, the lungs and heart are large, and the power of the latter organ is con-

spicuous, predominating over all other systems. The pulse is strong and regular; the veins turgid, full, and blue; the chest large; the complexion fair and florid; muscles firm; hair reddish, chestnut, or auburn. Impressions made on the nervous system are vivid; imagination luxuriant; temper passionate, but not vindictive; and individuals of this class, though readily excited, are still easily appeased. Now were we to treat a patient of the sanguineous temperament, in the same way that we should treat one of the lymphatic, suffering from the same disease under exactly similar circumstances, the consequences would be most deplorable. For instance, wine, spirits, and such stimulants would be wholly inadmissible in treating a patient of the sanguineous temperament, because in such an one the heart and arteries are already too prone to over-action. The use of stimulants by a patient of sanguineous temperament would almost to a certainty bring on inflammation; or we should by such means incur the risk of doing some violent injury to the heart or some other part of the nervous system.

The Biliary Temperament, again, differs from the foregoing, thus briefly noticed. In persons of this temperament, the liver is large, and its functions are readily called into activity, and there is a great tendency to a redundant secretion of bile. The pulse is stronger and more frequent than in the purely sanguineous; the veins are prominent, the sensibility acute, and there is great constitutional energy. The skin is generally dark or sallow, with occasionally a yellow tinge; hair black or dark brown, and often short and crisp; the muscles firm, and well developed; temper abrupt, but not liable to such extremes of excitement as in those of the purely nervous; the conceptions are bold, while they themselves are inflexible in the pursuit of a project, nor are they so readily exhausted as persons of the nervous or other temperaments. In attaining

the object they wish, individuals of this temperament are dauntless and persevering to the last. In treating persons of biliary temperament, suffering from nervous affections,

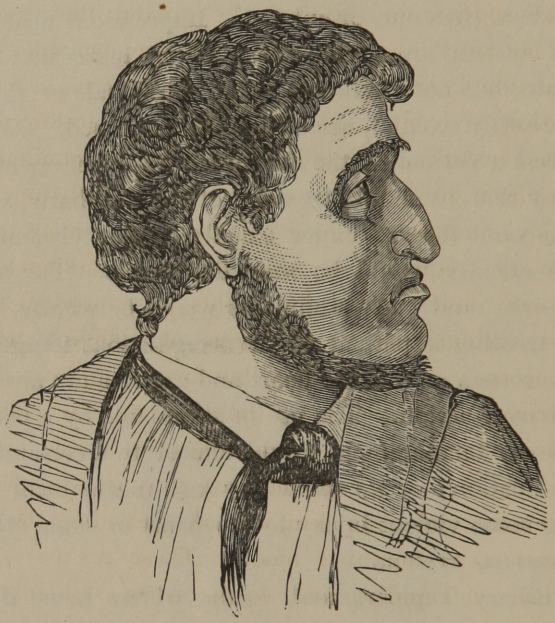

Fig. 4. Biliary Temperament.

and in whom the secretion of bile is somehow faulty, we must not turn our attention exclusively to the condition of the stomach and bowels, as the only cause of such disorders. It is true that too much food, or food of an indigestible nature, taken into the stomach may affect the liver, derange its functions, and so vitiate its secretion, and thus bring on a train of nervous symptoms. Still, such are not the sole causes of deranged bile; and as the morbid effects cannot be relieved till we have ascertained and removed the cause, we must endeavor to discover this by inquiring most minutely into the history and all the circumstances of the case as already explained.

The various passions, whether of a depressing or exhilarating character, have great influence in inducing nervous disorder. Sudden emotions, too, have the same effect; and the more sudden and violent, the greater their pernicious effects, not only upon the system at large, but upon the nervous portion in particular, — ranging from mere temporary trepidation or excitement, to the most inveterate mania or confirmed insanity. Thus jealousy, abused confidence, fear, sudden alarm, prolonged or continued apprehension, anxiety, grief, joy, unexpected good fortune, and similar emotions, exert, very frequently, a most dangerous influence. Such effects will violent emotions of this kind produce upon the nervous system, that the functions of different and distant parts become not only sensibly, but deeply implicated. Thus very strong impressions upon the mind with the concomitant conflict in the nervous system have so acted, even upon young persons, as to turn the hair gray in a single night; while in other cases the skin, instead of exuding the ordinary perspiration, has sweated blood. These results sometimes supervene so rapidly, and come on so suddenly, as to wholly exempt them from any interference, and place them beyond all possible attempts at prevention or arrest. I am frequently called upon to prescribe for patients of biliary temperament suffering severely from nervous disorder, which I have traced to deranged state of the stomach and bowels; and these conditions were clearly referable to the abuse of purgative and mercurial medicines. Costiveness by no means invariably indicates the necessity of recourse to opening or purgative medicines. Many persons live almost entirely upon food, nearly the whole of which is not only convertible, but actually converted into nutriment and completely assimilated, thus leaving little, or rather no residue, to pass off through the bowels. If, then, in such

circumstances, it should be deemed advisable to move the bowels, the more rational plan would be to alter the nature of the diet, and substitute more of a vegetable, while we reduce in a corresponding degree the amount of the more concentrated and nutritious food. Vegetables contain less of the nutrient principles, and consequently leave a larger amount of residue, upon the expulsion of which superfluous material the action of the bowels may be more naturally and far more legitimately and advantageously employed, than in responding to the irritating influence of drastic purgatives. "It is in cases of this description," says Cowle, in his excellent work on the Physiology of Digestion, "that the physician is more frequently consulted, and that he has the best opportunity of showing his discrimination and judgment. If he and the patient are satisfied with simply procuring relief, he has ready means at hand in any of the ordinary purgatives; but if a cure is their object, they must go back to the root of the evil, and begin by restoring the digestive organs to health." Nervous disorder in biliary temperament is clearly traceable to the secretion of bile being vitiated or otherwise deranged. In laying down plans for locating such affections, we must not only determine their nature, but inquire into and ascertain the cause, and remove this if possible. If, for example, we should find, upon careful examination, irregularity in diet to be the fundamental cause of the evil, which is frequently the case, we should most peremptorily interdict all those kinds of food which either experience or science has taught us tend to vitiate or derange the secretion of bile; such, for instance, as a too free use of porter, sugar, cream, butter, rich, fatty meats, ardent spirits, wine, etc. These, it is well known, and chemistry confirms our experience, increase the quantity of bile to an amount far beyond what is required for the purposes of healthy

digestion; and, further, the most moderate experience has repeatedly shown that the superfluity often lays the foundation of some nervous disorder.

I have also had many opportunities of witnessing the ill effects, on particular cases, of meat suppers taken late at night. This proves very injurious to persons of biliary temperament, by the formation of a large quantity of bile during the night, the individual frequently sleeping in a close, confined, ill-ventilated chamber, while at the same time respiratory and circulating processes are slow and inactive. The quantity of oxygen necessary to enable the lungs to burn off the carbon being withheld through impurity and a deficient supply of air, as well as from other causes, the liver is called upon to assist in secreting the superfluous carbon under the form of bile. The person in consequence awakes stupid, unrefreshed, and for the most part with a bad, oppressive headache. Indeed, so liable are biliary persons suffering from this form of nervous disorder to the consequences above stated, that I have repeatedly seen a severe attack of headache brought on by the patient retiring to repose in an ill-ventilated apartment, after taking a full meal. As a means of immediate relief under such circumstances, a saline purge is one of the most effectual, as it will drain the liver of its redundant bile, and thus afford instantaneous, but still only temporary relief. Permanent benefit must be sought for in avoiding the exciting cause, by the inhalation of pure, fresh air, friction and cleanliness of the skin, and warm bathing, which will facilitate the exit of carbon and other impurities through the other channels, the lungs and skin. By such means, and avoiding late suppers, the liver will be relieved from the necessity of over-activity, and of forming a superfluous quantity of bile; and thus, the real cause of the disorder being removed, the morbid effects will naturally cease.

Another fertile source of nervous diseases in bilious tem-

peraments, which formerly came under my observation more than at present, was the taking large quantities of *Cod Liver Oil*. It is well, before we indiscriminately prescribe fashionable remedies, to consider how they are likely to act. The Laplander, dwelling in the arctic regions, where it is intensely cold, and the atmosphere in an equal bulk contains a large quantity of oxygen, lives principally upon carbonaceous substances, as train oil, blubber, and fat. But the Indian, who lives in the torrid zone, where the atmosphere is rarefied, and for equal bulk contains but little oxygen, selects rice, vegetables, and other diet containing but little carbon, and it is found that such are best suited to the circumstances under which he lives. For the same reason, Cod Liver Oil administered in summer, when it is hot and oppressive, more especially if given to a patient of a biliary temperament, will seldom fail to aggravate the disease it was given to cure. Nature evidently intended that the liver should free the blood from those principles which form the radical or constituents of the bile, and apply them, so eliminated, to perfect or complete the function of digestion. But if more bile is formed than is necessary to this end, the excess acts as an irritant to the bowels, and occasions what is commonly called "bilious diarrhœa." If, however, on the other hand, the bile be scanty in quantity, as often occurs with persons who have resided long in tropical climates; or suffered frequently and severely from agues; or who have indulged to a pernicious extent in a too free use of alcoholic liquors, in consequence of which the liver pours out fibrin, which, acting as a ligature upon the portal vessels, impedes the flow of bile, — the consequence is that the bowels become constipated; the stools clay-colored; the powers of digestion greatly weakened, and otherwise impaired, attended with great loss of strength and flesh. The skin becomes rough, hard, and dry; the countenance assumes a sallow aspect, or

a general yellowness pervades the skin, and true or confirmed jaundice is the result. This is not unfrequently attended with the formation of gall-stones, which greatly aggravates the evil, and leads to very unfortunate consequences, an instance of which, of remarkable severity, lately fell under

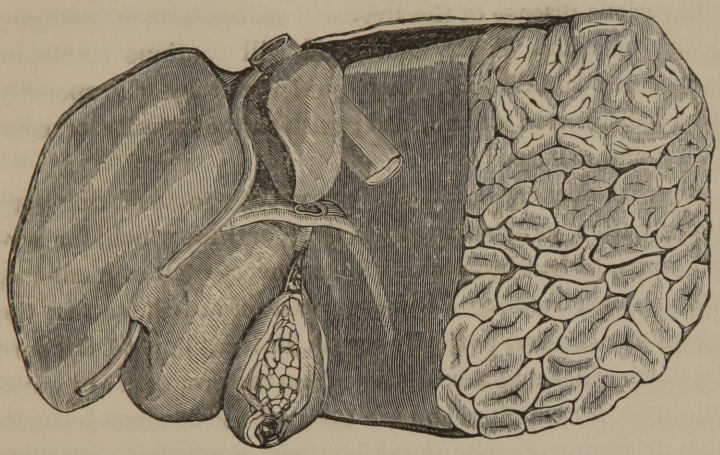

Fig. 5.

my observation. In this case, upon dissection after death, the gall-bladder felt like an uniformly hard, solid mass, giving the impression that its cavity was wholly occupied by a single calculus. Upon opening it, however, the cavity was found filled with a number of distinct small calculi, the surfaces so moulded and fitted to each other as to appear to the touch a single solid mass. The appearance of the gall-bladder (in this case) laid open and the calculi exposed is well shown in Figure 5. This patient used to suffer, at intervals, the most excruciating pain; especially during the passage of gall-stones into the intestines, which occasionally took place, and was usually attended with jaundice and other hepatic disorders.

In such cases, strict attention to regimen and diet should

be enjoined; the food should be light but nutritious; the patient should abstain from all rich and fat meats, pastry, doughy puddings, and, as far as possible, from spirituous and fermented liquors. By carefully observing and abiding by these rules, a person may live for many years, though he may have but little liver remaining. But if persons afflicted with serious disease of the liver will still persist in indulging in the pleasures of the table, and will continue to violate those rules laid down for their guidance, they will speedily bring existence to an end, and perish in the extreme of emaciation and misery.

A gentleman consulted me four years ago, suffering very severely from an affection of the liver, and for which, for several years, he had been taking almost every kind of medicine, without much benefit. I had every reason to believe that the patient would never perfectly regain his health; yet I felt sure that much relief might be derived from the proper use of warm baths with dry cupping, and the external use of nitro-muriatic acid; frictions to excite the skin: light, nutritious, unirritating diet; the occasional use of a pill composed of aloes and rhubarb; horse exercise; and a residence in a dry pure air, — were the means which seemed best suited to prolong life. He pursued the proposed plan for about five months; and in a note which I received from him, in the interval, he states: "The action of my bowels is now regular and nearly natural, and I very rarely experience the sickness after food; I gain strength every day, and I can sleep the whole night without being troubled with either sickness or nausea; I am gaining flesh; can walk a long distance without feeling fatigued, and I am not without hopes that I shall soon be quite well, and able to resume practice." This gentleman continued still to improve; but a few months after this period, being attorney and counsel for several railway companies, he dined at several public dinners, and, indulging rather freely in the pleas-

ures of the table, drank too liberally of wine and spirits, and died, after a six weeks' severe illness, greatly emaciated. Upon the *post-mortem* examination, the liver was found much atrophied, and indeed very little was left. Although I felt satisfied that this patient would never have reached a mature old age, yet I am convinced he might have lived for many years, had he but conformed to the dictates of common-sense, and abided by the rules laid down for his guidance.

I have at this moment a patient under my care, suffering severely from nervousness, lowness of spirits, and great despondency, which the yellow tinge of the conjunctiva, the harsh, hard, dry state of the skin, the feeling of uneasiness after food, frequently attended with vomiting, and the clay-colored stools, enable me at once to refer to congestion of the liver as the cause. This gentleman had been under the care of his medical adviser for a considerable time, and had consulted some of the most eminent men in the profession, who all prescribed a variety of means; yet, strange as it may seem, notwithstanding the dry, hard, harsh, and inactive state of the skin, the use of the warm bath — so powerful a means of promoting the action of this organ — had never been even once suggested to him. He has resorted now to the warm bath, and his health is steadily progressing; and I feel satisfied that to its use, and dry cupping, we are chiefly indebted for the improvement in the health of this patient, which has recently taken place, and I have reason to believe that he will perfectly recover.

CHAPTER III.

A CHIEF CAUSE OF NERVOUS DERANGEMENT.

In another now well-known work of the writer, he has gone at length into the subject of the abuse of the reproductive organs. I allude to the work entitled "Science of Life." Therefore there is no necessity for more than a single chapter of a general character in the present volume on this subject. But in a work on Nervous Affections and Maladies, it was impossible to avoid allusion to this subject, because of the mysterious psychological influence of the organs in question on the health, and especially on the nervous system, and through that on the mind. There is a close connection between genital psychology and physiology and pathology. Speaking of self-abuse and involuntary losses of vitality through the reproductive organs, the "London Lancet" said many years ago: "It is a subject not less interesting to the moralist than to the medical practitioner; and it really is surprising to see that nothing worthy of notice is to be found on a matter so important in the various writings of standard authors." This was written in 1841, several years before the appearance of the great work of M. Lallemand, entitled "Des Pertes Seminales Involontaires.'" "This circumstance," continues the "Lancet," "appears remarkable and unaccountable, when experience convinces us that sexual weaknesses and imperfections, either hereditary

or acquired, constitute the great majority, perhaps *nine tenths, of the causes of nervousness, mental imbecility, and derangement.* How, then, are we to account for a fact like this — a fact of such frequent occurrence, and so highly philosophic and instructive as it undoubtedly is — having obtained so little attention? Can a general feeling of ill-exercised tenderness towards the depraved habits of most of the pitiable sufferers have operated in preventing the matter from having been duly investigated, and candidly avowed and discussed, or has it resulted from ignorance? The former we are disposed to think can scarcely have been the case; for with the medical practitioner, less frequently, perhaps, than with any other professionalist, from the confidence so readily reposed in his calling, does delicacy or prudery supersede utility." Thus far the "London Lancet." Everybody of any experience in the world knows that there is extant much unwholesome morality; there is much substitution of words for things; much false delicacy which is miscalled virtue; much traffic in

"The false commerce of truth unfelt";

much conventional lying; much conventional dissimulation. For want of the reverse of all this, many fine minds are overthrown.

There is nothing which *is*, which has actuality of existence, that should not be fathomed, and whose rocks and quicksands should not be placed, as in an unfolded map, conspicuously in sight. Upon subjects on which neither Religion nor Science disdains to treat, correct information should be diffused. It lies within the scope of our will to shun many of the first approaches of insanity; nay, even although the first steps into error are those which are most easily retraced, to extricate others and ourselves from its labyrinths when deeply involved in them. Into these labyrinths we are usu-

ally misled by some of those passions and temptations which, not peculiar to a few, are common to our whole species. We cannot know too much; and minds may be capable and yet unenlightened, hearts human and yet unawakened. The subject of which we are speaking is one on which even sane minds are apt to entertain many misconceptions. There are psychological mysteries which it lies within the power of pathology to elucidate, and which would without its aid remain obscure. There have frequently been witnessed deviations from the perfectly correct in conduct and amiable in manners; exhibitions of petulance of temper and trespasses against the minor moralities; to account for which, upon a *post-mortem* examination, there have been discovered traces of painful and perhaps previously unsuspected organic disease.

Among our currently nomenclatured diseases are some which peculiarly tend to generate gloom, and even, in severe or long protracted cases, to incite to suicide. There are forms of gastric, hepatic, and cerebral diseases, which display these or like tendencies. Sometimes it is rather ill-temper that is induced, as by attacks of the gout. Anxiety of expression in the countenance is a symptom of enteritis, which, although having a physical origin, has not a physical only, but implicates the condition of the mind. The mind in each of the varied forms of febrile excitement takes the peculiar course of wandering, and surrounds itself with those peculiar groups of hallucinations, which characterize the existing state of the brain and sensory system. At the same time it may be observed, that the mind of the patient individually determines the mode in which various morbid states of the brain are manifested; and will be found in a greater or less degree, unless when torpor and incapacity are superinduced, to vindicate its own idiosyncrasy. While under excitement it frequently throws off such gigantic shadows of portions of its

being, as the microscope brings into view of the minuter textures of natural objects. We obtain glimpses of the very *infusoria*, so to speak, which are engendered in the reason and imagination of the patient. There are, on the other hand, diseases, and these of a fatal character, which, during the most part of their course, do not disturb the temper or trouble the mind. Consumption, not always, indeed, but frequently and commonly, deals in these respects very gently with her victims. Investing them as with the hues of perpetual youth, she leads them to the altar crowned with garlands. Not till their near approach to the sacrificial flame does the bright eye lose its lustre, the hectic flush give place to paleness,— do the hues fade, the garlands wither. They gradually, though still and evermore attended by Hope, become less and less tenacious of existence; they are gently weaned from the things of time and sense, and from the love of life; their hopes in life are displaced by hopes of the life beyond this life. We regard their fate almost with envy.

After bereaved relatives have passed through the first bitterness of sorrow for their loss, their reminiscences of those near and dear to them, who have died of this disease, become almost pleasurable.

The patience of sufferers under a long-sustained mortal affliction, is naturally regarded in the most amiable light. But we must not forget, as psychologists, that, in comparison with many of the ills which flesh is heir to, this complaint occasions less of bodily suffering, and less severely tests the powers of endurance. We should remember this, not that we may cast a shadow of disparagement upon the characters of those who, having had something — probably much — to endure, have endured it patiently, and left behind them a pleasing image of tranquil resignation to the will of heaven in the memories of survivors; but that we may be

just to such as, having had more to suffer, have naturally, and almost inevitably, displayed more of irritability and impatience.

We have noticed how bowel disease induces cerebral disturbance; how, through the medium of physical organization, the mind is made a party in the struggle. We thus see clearly instanced the influence of the body on the mind. The intense agony attendant upon the passage of the gall-stones, or upon a paroxysm of tic-doloreux, are too great to be borne by any human being with tranquillity. We remember having heard some severe and unkind comments passed upon a clergyman who could not refrain from manifestations of impatience under extreme suffering from the former mentioned cause. It was inferred that he came short of his duty as a Christian minister in not setting his flock a better example. There is no degree of strength of mind which disease and pain may not master. The influence of the mind on the body is manifold. There are the various passions which inspire, exalt, and debase humanity. There are painful or agreeable surrounding circumstances. These take each its part in influencing health; these constitute some of the links which unite physiology and pathology with psychology. There is also to be considered the influence of one mind upon another, which is great; likewise its power, as exercised within or upon itself, as well as upon the body. There is what is of a loftier order than intellectual, — there is moral power; there is strength of will, of an inferior order to both, but capable of greater ostensible achievements than either. There are none who have not observed the effect of hope as a cordial, of fear as a depressant, upon invalids. Health and longevity depend much upon circumstances, much upon the due management of the mind. A man who upon a sick bed is disturbed by the reflection that he has not succeeded in making a due provision for his family, may be inclined to

give himself up to despair, and actually suffer himself to die; or his want of resignation to his fate, his cherished designs for the future, his sanguine determinations to carry out his views upon his recovery, may conduce to his convalescence. The subject is one not only of great, but of universal interest. To pursue it further would be to expatiate over too wide a field. It has been shown how close an affinity subsists between certain physical and psychological phenomena; and while it has to be conceded that there are diseases which act but slightly and inappreciably as disturbing forces upon the mind, it will be perceived that this concession can least of all be held to apply to organic disease or functional disorder of the generative system; not genital disease indeed, only, but the ordinarily fulfilled functions of the reproductive organs while in their normal state, much influencing the mind, and producing, as the status of puberty becomes established, absolute and plainly perceptible changes in its character. The same truths admit of being expressed in the blunt language of science, which have given vitality to the poetry of every language. Science, Philosophy, and Song concur in telling the same tale, only that what the latter generalizes, science expounds and specifies: they speak of the Master-Passion, and hymn its eulogy or lament its pangs of discomfiture; science, of its more gross and corporal elements.

> "Love lives; Thought dies not; the heart's music still
> Prolongs its cadences from age to age;
> Perpetuates its melodies, which thrill
> Through each voluptuous leaf of Nature's page."

Man perishes; but the passions common to human nature will endure as long as the world exists; hence the interest in them never ceases, never becomes obsolete; hence our sympathy with the joys and sorrows of the long since dead, as if they were yet among the living. The passions, and among these the master-passion especially, supply us with countless examples of the agency of the body on the mind, of the

mind on the body, — of the reagency of each on the other. With the advance of life their development becomes more complete, their tendency and objects more clearly understood. As in the female sex the frame becomes more womanly, and a thousand new graces come into view; so the mind itself, in becoming more mature, becomes more feminine. In both sexes, the distinctions of sex become more marked and definite; in the male sex, not the aspect and voice only, but the mind undergoes a change. Those changes in persons of both sexes which are of a psychological character are matters of as plain recognition as those which are physical; and so also are any pauses in the march of nature towards perfection of frame and maturity of mind, which disease or other obstacles to its progress occasion; and, as we may add also, any forced or unnatural acceleration of its pace. The acclivity from childhood to adolescence may be ascended too rapidly; the ascent itself is not without its perils and difficulties; it extends indeed over one of the most dangerous tracts of country which we have to pass in our journey through life. Upon our safe conduct through it, the health of body and vigor of mind of all after life greatly depend. Through educational neglect, there may be hardy but wild and worthless plants; and a hot-house cultivation may produce such as are only calculated for useless and idle show. There may be, in fact, an extreme cultivation of the mind, which shall tend eventually to incapacitate rather than to strengthen it; causing it to lose in sensitiveness, more than it gains in power; prematurely exhausting those energies which are requisite to wage the battle of life successfully. During a requisite course of study, habits of abstraction of mind may be formed, which renders persons as members of society useless, because isolated and unsocial; and which, removing them from the ordinary temptations of man's worldly condition, leave them but a more certain and easy temptation from within.

CHAPTER IV.

PATIENTS WITH A NERVOUS TEMPERAMENT.

The nervous temperament, as previously stated, is to be distinguished by a quick, active brain; and the nervous system takes the lead over all the others. The eyes are large, and generally piercing; the features prominent and usually sharp; the forehead clear; the hair black, but silky, not crisp, as in the biliary temperament. The muscles, though small, are still round and well marked; the motions quick and active, and the step firm; the features generally expressive of anxiety. Such persons are for the most part intelligent, and alive to every kind of nervous impression; being easily excited and as readily depressed. The disposition as well as the mind is frequently modified by associations; but a sedentary and indolent life never fails to create morbid impressions; the persons themselves being best suited for occupations requiring activity and quickness. We very seldom, however, meet with the nervous temperament, or, indeed, any of the others, perfectly pure and unmixed; but they run into, and are blended with, each other. Thus, we have the bilio-nervous, the nervo-lymphatic, the nervo-sanguineous temperaments. It requires some discrimination, and considerable practice and experience, to thoroughly comprehend the various temperaments, and modifications they are constantly presenting in practice to our observation. The indi-

viduals themselves often seem complete enigmas. Thus, some that are intelligent and courageous, will often faint even at the sight of a drop of blood. I am acquainted with a gentleman of highly nervous temperament, who is timid and fearful on trivial occasions; yet when suddenly placed in real danger, has been known to be bold, decisive, and self-possessed. But all attempts at describing the various phases and shades assumed by this temperament must fail and prove abortive. I have seen some hundred cases of the nervous temperament, but have never yet met two precisely alike in all respects. Climate, associations, hereditary tendencies, and other innumerable circumstances, as grief, disappointment, etc., so far change, alter, and otherwise modify this class of persons, as to render them one and all dissimilar, — the same causes not being applied or not operating in all. What I wish more particularly to insist on is, that when the nervous temperament is present and in activity, or when it is intermixed with others, it is of the greatest possible importance that it be attentively and thoroughly studied; for no treatment of disease can be permanently successful if these conditions be not taken into account. Redness, swelling, heat, pain, and throbbing, are laid down, in the systematic works upon medicine and surgery, as the characteristic or distinctive signs of inflammation; and in other temperaments such signs may be relied on with safety; but I would recommend practitioners, not much accustomed to the management of nervous cases, that patients of this temperament simulate not only inflammation, but also many of the incurable diseases in which inflammation frequently terminates. I am satisfied, after having strictly watched and carefully attended to a large number of cases of purely nervous disorder, that all the phenomena indicative of acute inflammatory action may be present, and yet no inflammation whatever exist.

I shall briefly notice the following interesting and instructive case, which will, perhaps, more clearly illustrate what I wish to inculcate. I was called, about three years ago, to visit a young lady of highly nervous temperament. She was an only child, and had been brought up in all the luxury and delicacy that affluence could procure. She suddenly complained of very severe pain in the knee, attended with all the symptoms of inflammation in the joint. The pain was so intense, that it was not without difficulty she could be prevailed upon to allow even a superficial examination. The pain was very speedily followed by swelling, heat, throbbing, and all the usual symptoms of inflammation. The medical gentleman who previously attended the case had applied leeches in abundance, had tried cold and astringent lotions, purgatives, and such other remedies, and had persevered most steadily in the antiphlogistic plan of treatment for a considerable time, — still the pain was in no way relieved, or even abated in the slightest degree. The obstinacy and the general appearance of the joint led to the belief that the young lady was threatened with white swelling, and it was under these circumstances that I was called upon to visit the case.

When I first saw the patient, I was assured that the same state of things as I then witnessed had existed without amelioration, or, indeed, the slightest change, for a period of nearly three months; and this, too, notwithstanding the most approved means of subduing inflammation had been adopted, and most strictly persevered in, ever since she had been first taken ill. I had before seen several cases of a similar description. Therefore, after a minute and careful examination of the joint, I expressed my doubts of the existence of any real or true inflammation. Upon this I was the more decided, because I had in the course of my inquiries ascertained that the symptoms had neither increased nor decreased, but had continued steady and stationary; in fact, precisely as at

the very first day. Now, it is in accordance with my experience, that real inflammation, more especially when acute, if not subdued, must certainly proceed to abscess or ulceration, or symptoms indicating the destruction of the joint either supervene or threaten before the lapse of so long a period. These considerations, with the admitted irregularity in the periodical health, the high degree of nervous excitement, the acute sensibility, greatly increased by a luxuriant and indolent mode of living, — induced me firmly to announce it as my opinion that the patient was suffering from a purely nervous affection of the joint, and clearly and decidedly the result of morbid irritability.

In accordance with these views, I recommended that the limb, which had been hitherto confined in one position, should be greatly exercised; that the patient should remove from the heated apartment to which she had been so closely and strictly confined, and take carriage exercise in the open air. It was at the same time strongly advised that external applications to the limb should be discontinued; for it was very evident that the only effects of the lotions were to attract her attention to the state of the limb, and create great anxiety and alarm from the apprehension of being obliged to suffer the loss of the leg; for she had unfortunately been told that the disease might end in white swelling. With the view of restoring the periodical action of the uterus, which had been for some time suppressed, the bowels were kept regular, and the patient was directed to use warm, salt water baths frequently; and to give energy and tone to the general system, which had been enfeebled, she was directed to take the *Tinct. Ferri, Acet. Æther*, in regular doses three or four times a day. It was indeed extremely gratifying to witness the great improvement in her health, even in the course of a few weeks, after the alteration in the treatment had been adopted. Pure air, regular exercise, with plain, simple, but

nutritious diet, and the mind being set at ease, I am satisfied had much to do in effecting the cure which speedily followed the adoption of the plan above stated. Although an advocate for great simplicity of means in such cases, I am far from wishing it to be understood that the treatment of them is always as simple or equally successful. We have often to contend with prejudice, — patients and their friends having been, in most instances in which the case has been prolonged, informed that there is danger of the disease turning to white swelling, and that exercise, or indeed motion of any kind, is prejudicial and attended with the greatest danger. Thus, under the influence of first impressions, they rebel against any advice to the contrary, and persist in confining the patient either to the bed or to the couch; and this, too, not unfrequently in a hot and ill-ventilated apartment.

These nervous affections of the joint are not always to be easily distinguished from organic diseases of the same structures; for it is not unusual to find that the natural appearance of the joint has been completely altered by the effects of repeated leeching, blistering, cupping, issues, setons, etc., so that it is often extremely difficult to decide whether the appearances be really in consequence of the remedies or of the disease. The practitioner, therefore, who has not paid special attention to these diseases, should be very careful before deciding positively upon the nature of such affections, but more especially if the patient be a lady of the nervous or bilio-nervous temperament. It is not long since a very eminent surgeon at one of our great hospitals amputated above the knee, under the notion of the existence of white swelling of the joint. But, to his great surprise, upon dissection after the operation, the joint was found in a perfectly sound and healthy state, and it turned out that the disorder was purely nervous and nothing more.

To fortify myself by eminent authority, I quote Sir Benja-

min Brodie, who says, "Among the local hysterical affections, one of the most frequent is acute pain in the knee-joint. Indeed, the affection is marked by almost every sign of structural disease, save that it is more diffused. Yet this is true neuralgia." And Sir Benjamin concludes his sentence thus: "I do not hesitate to declare that among the higher classes of society, at least four fifths of the female patients who are commonly supposed to labor under diseases of the joints, labor under hysteria and nothing else."

These nervous affections are not confined solely to the joints, for I am often called upon to prescribe for similar affections of the breast. Patients of this kind invariably apprehend and suspect the beginning of cancer. The discrimination of such cases is frequently a matter of considerable difficulty. And, indeed, there are many instances of breasts having been removed under the belief of the presence of cancer, when really no such disease existed. While this sheet is passing through the press, I have been called upon to prescribe for a hard and painful tumor in the left breast, which, upon examination, presented many of the symptoms of cancer. This person was of a highly nervous temperament, and, on her first visit, gave me the impression that she was under the influence of wine; but, upon more strict inquiry, I found it was laudanum, to the habitual use of which she had been addicted. I declined giving an opinion, when I was informed that the amputation of the breast had been already resolved upon; and that she had called for my advice before submitting to the operation. I advised her to go into the country, and try the effects of a pure, wholesome atmosphere, for a fortnight at least; to leave off the use of opium; to take warm, sea-water baths; to use the plainest and simplest, but still mild and nutritious diet; to live principally upon milk, and thus remove any cause of constitutional irritability. During the first ten days her sufferings

were most intense, in consequence of being debarred her habitual doses of opium. Her firmness and strength of mind were put to the severest proof in altogether renouncing the narcotic; and, as she informed me, it was only the hope of being able to save her breast, that could have induced her to forego its use. Upon her return to Boston, after somewhat more than three weeks' sojourn in the country, the irritation was greatly reduced by change of air, bathing, and mild diet; and now a thorough examination could be endured without apprehension, and was therefore readily submitted to. It at once became evident that the tumor was the result of irritation, in an extremely sensitive and excitable system; and that the care-worn, anxious, peculiar expression of countenance, which we observe so constantly in true cancer, was, in this instance, entirely occasioned by mental anxiety, greatly increased and aggravated by the opium she was taking. She was advised to continue the plan of living which had proved so beneficial, and she faithfully promised me that she would not again have recourse to opium, and I have every reason to believe that she will perfectly recover. I cannot too strongly denounce the immoderate use of opium in these cases. If ever used at all, it should be given with the greatest caution and circumspection to persons of nervous temperament, and still more if the patient be young. Opium renders the nervous system highly susceptible, and alive to all sorts of nervous impressions.

Nervous affections of the spine are still more common than those of the breast, and they are but too often treated as really organic diseases. It is by no means uncommon to meet with such instances; they are constantly presenting themselves in practice. I have seen many who have been confined to the couch for months, or stretched for a like period upon the inclined plane. Had the cause of the disorder been traced out and removed, instead of attending to and treating

effects, much present suffering and subsequent misery might have been avoided. The history of the following case may perhaps prove not uninteresting: A young lady, of highly nervous temperament, was subjected to the inconvenience of confinement upon the inclined plane, for nearly nine months. This severity of discipline had its origin in the notion that this unfortunate patient was laboring under severe disease of the spine, and which, it was imagined, was the primary cause of the disordered state of her health, which had been declining for some years. Her symptoms were watchfulness and wakefulness, so that there was a total inability to sleep more than about four or five hours during the night, all the rest of which she remained awake. In consequence, her health had become delicate, which was referred to disease of the spine as the cause, as she complained of a good deal of pain in the back. A careful inquiry into her history satisfied me that the wakefulness was hereditary. From childhood she had not slept as much as other persons. For years previous to her birth her father had forced himself to very great mental application. Being the architect of his own fortune, he had not for a length of time allowed to himself more time for repose than was imperatively required by exhausted nature. Had, then, the history of this case been carefully investigated at the commencement, I think very different results would have been arrived at, and it would not have been thought necessary to confine her to the inclined plane. The above cases are cited to show how the cause of disease may be overlooked by eminent physicians, and to show that the study of the temperaments, a more strict inquiry into the nature of nervous affections, and a more rigid investigation into the causes of disease, would tend much to relieve many of those distressing cases of nervous disorder which so constantly come under the care of the physician.

CHAPTER V.

CONVIVIAL HABITS AS A CAUSE OF NERVOUSNESS.

Of course the prompt and effective remedies for nervousness, which the writer has ready at hand, are frequently demanded to quell the nervousness of persons suffering from convivial habits and good cheer, and occasional or habitual abuse of wines and alcoholic drinks. The depression of the nervous system, induced by such indulgence, is sometimes called alcoholism or alcoholic melancholy. There is in every class of society a number of persons who, although they do not become intoxicated, suffer from chronic alcoholism, from drinking more spirits, wine, or ale than agrees with their health. Most of these persons lead a useful and active life, and apply for medical advice, being quite unaware of the cause of their illness. The habit of indulging freely in wine at frequent dinner parties, of drinking wine, ale, or whiskey at times, of taking occasionally a glass of wine between meals, or of sipping every evening two or three glasses of ale, or punch, or whiskey and water, is quite sufficient to bring on an attack of alcoholism. Drinking is not usually in these cases an indomitable habit, and accordingly the patient will gladly give it up, if he feels certain that by so doing his health will be improved. Sleep disturbed by dreams, sometimes sleeplessness, diminution of the appetite and evacuations, vomiting of mucus in the morning, trembling of the

hands and arms more marked in the mornings, etc., are consequences of these convivial habits. The chief symptoms of *chronic* alcoholism are trembling of the feet and hands; increasing weakness; the sleep is much disturbed by frightful dreams, or it cannot be obtained either on account of neuralgic pains in the limbs, or extreme restlessness. In the more advanced stages of the disease, the night not unfrequently becomes a period of horrible suffering. The patient in vain seeks to place his limbs in a position which would afford relief to the uneasy sensations or burning pains which affect them; and if sleep or drowsiness steals upon him, it is presently driven away by convulsive startings. The neuralgic pains which at first haunt solely the night, begin to affect the patient, and increase upon him by day. Vertigo often happens, and at times the vision is clouded. Hallucinations are of common occurrence. They mostly affect the organs of sight and hearing. For instance, one of my patients, when walking in the street, had seen ropes dangling about his head; to another, objects appeared as if they were double; some occasionally perceived insects creeping about, — the various visions often disappearing as soon as the attention was directed to them.

These factitious perceptions of the sight appear sometimes so real that the individual moves aside to avoid an imaginary object standing in his way. A hackman I was treating for chronic alcoholism told me he frequently pulled up his horse suddenly, or drove to one side of the street, lest he should run over some obstacle he distinctly saw in front of his horse, and which he afterwards found not to exist in reality. In most cases the patient is occasionally, or perhaps constantly, troubled with shadows or black mist, or flying specks, passing rapidly before his eyes, and causing a dimness of sight, especially when he is looking attentively at something; in the act of reading, for example, the book is suddenly

darkened, and a state of almost complete blindness ensues, lasting a few minutes. During the long and sleepless nights, aberrations of the sight frequently happen. The wife of a patient I was treating for chronic alcoholism, told me her husband often fancied, whilst lying awake, that he saw rats and cats, and various other descriptions of animals, on the bedclothes; he used to doze at intervals, and in the morning could not remember anything of the nightly visions. The aberrations of the sense of hearing are not so frequent, but I have met with patients who occasionally heard voices addressing them when nobody was present. "Doctor, I will give you *a wrinkle*," said a friend to us, not long ago, as we were gossiping concerning wine; and an attendant was directed to descend into the cellar, and bring from a particular bin a bottle of champagne. It may be as well, perhaps, to remark, lest the uninitiated should stumble over the term, that *a wrinkle*, in the refined slang of the day, signifies a little bit of practical wisdom. The phrase is highly metaphorical. Worldly wisdom increases with years; so also do the furrows which indent the forehead. Therefore an increase of wrinkles in the forehead may be regarded as an index of increasing wisdom, and *a* wrinkle may stand well enough for an item of practical wisdom. This by the way. The champagne was in due time placed upon the table, and the sparkling fluid had a most agreeable taste and refreshing effect, for the evening was hot and stifling. "Well, how do you like the wine?" inquired our friend. "A pleasant drink for a scorching day," we replied. "Read that," he said, putting into our hands the cork which had just been extracted from the bottle, and pointing to the inner extremity, — that which had been next the wine. There we saw and read, not a little to our astonishment, the formidable word *mort* (French *death*) printed in clear, bold letters. "That," said our friend, "is a trade-mark; and when you see it affixed to the

cork of a champagne bottle, you may rest assured that no grapes ever contributed towards the formation of the wine."

This was *the wrinkle;* but the singularity of the trade-mark awoke other thoughts than those immediately connected with the utility of knowing it. Should there have been a full stop after the different letters, — each having a specific signification, the formation of the word being merely accidental? Or was the trade-mark such as we read it — *Mort* (*Death*) ; and if so, was it a piece of satire of the wine merchant on the wine? Truly, a reversed cork so stamped and placed upon the plates of the guests at a feast might well serve the purpose of the mummy introduced at the old Egyptian banquets ; or might convey as homely but as forcible a lesson as that taught in Holbein's drawing of the toper in the Dance of Death, in which death is represented as officiously pouring the inebriating drink into the mouth of one of the carousers. Or may we regard this trade-mark as a foreshadowing of that time when alcohol will no longer be known as *aqua vitæ*, but *aqua mortis*. And, indeed, as we become more and more familiar with the remote effects of alcohol upon the system, in whatever form the potent spirit be consumed, we cannot resist the conclusion that, as too commonly used, it would be more correctly termed *water of death*, than *aqua vitæ*, or water of life.

The writer can quiet the nerves shattered by vinous and alcoholic excess, and drive from his pillow the ugly visions which disturb the sleep of the victim of alcoholism. But total abstinence, as it is called, is better even than his remedies.

CHAPTER VI.

ANXIETY OF MIND.

Anxiety ! Is there a human breast in which this awful word fails to produce an echo? — from the youth, who fears to be superseded in the affections of the object of his love ; from the parent, who watches with alarm the flush in the cheek of his child, lest its vividness indicate latent consumption, — to the old man worn down with years and sorrow, who tries to estimate the commercial convulsions that threaten to swallow up the hard earnings of a long life of privation, and reduce him to beggary. To specify the objects of this corroding care would be to enumerate all the classes of society. The man of poetical imagination might give a series of individual pictures whose vividness would excite universal despair, like the single captive of Sterne ; he might so harrow up the feelings of the reader by the representation of social misery individualized, that the whole world should seem a charnel-house of wretchedness, unworthy of the benevolence of the great Being who called it into existence. It is hard to believe it in times of despondency and alarm ; but the man who stands aloof from the turmoil of the world, and occupies the higher station of independence, knows that all things work together for good ; that God does not leave to a future state the expiation of many of our errors and sins, but that even in this world they work their own punishment. If we suffer for the

faults and crimes of others when acquitted by our own conscience, we must endeavor to consider the misfortunes inflicted on us as a part of the moral discipline by which it is His purpose to work out our improvement, and fit us for final happiness. This view of the case, however, is appropriately left to the clergyman. It is in the capacity of physician and man of the world that I put myself forward, in the conviction that it is in my power to offer alleviation to the afflicted, to show how misfortune may be best borne, — how its physical and moral consequences may have their force turned aside, and be rendered comparatively harmless; how inevitable bodily ailments may be modified or cured; how some admit of great alleviation, and some of entire removal; that even by acting on the body we may render important service to the mind, and enable it to rise elastic from the pressure that, if left alone, would have crushed it to the earth.

It is not that I would evade the consideration of other forms of unhappiness; on the contrary, I hope, sincerely and confidently, to render a service to my fellow-creatures by showing that in all cases we may anticipate and prevent, or give considerable relief to, the ailments, disorders, and diseases produced by mental causes, even when it is obviously impossible to alleviate and remove their source and origin. The mind, that is, the aggregate of the functions of the brain (for we are not here speaking of the *soul*), can only produce disease by some sort of action on the physical structure and functions of the body. We see, however, that as accidental injury to the body (an extensive burn or scald for example) can produce a very serious effect on the mind, so also the diseased or disordered state of body, directly caused by mental emotion, acts reflexly on the functions of the brain, and very often paralyzes all the efforts of the sufferer, and render him incapable of using in its full power the intellect which

would have otherwise shown him a mode of extrication from his embarrassment.

Men who have weighty care on their mind, — statesmen whose confidence of retaining their position, and ambitious hopes of further advancement, depend on the slender and fragile thread of popular favor; or where patriotism looks forward with honorable fear to the result of a deep-laid scheme for the advancement of their country's welfare, liable at every moment to be defeated by malevolent rivals, and the unexecuted purposes rendered suspicious to those who judge by results alone; merchants who have staked vast sums on the issue of an uncertain speculation; gentlemen of fortune who have perilled their whole possessions and their honor on the result of a horse-race, — such men will, perhaps, look down with contempt on the petty details of the cares of humble life, but

Little things are great to little men.

The medical philosopher looks with as much interest on the anxiety of the petty tradesman, as on a great leviathan of the stock exchange or gold board, whose vast speculations involve the fate of nations. There is as much real dignity in the sufferings of the one as of the other, except in so far as the wish for wealth is modified by the desire to possess the means of benevolent power, and the exercise of an enlightened beneficence (such as actuated the late Mr. Peabody, the patron of the Peabody Medical Institute), — the hopes, fears, motives, sentiments, and feelings of the different classes, as well as their mental and corporeal sufferings, are essentially the same; and, if regarded from the heights of pure reason and philosophy, are equally deserving of honor or contempt.

It requires no argument to prove that anxiety affects the health; it is an object of daily experience; our libraries

are full of books of counsel on the subject; medical works, in the enumeration of causes of lingering disease, are crammed with cases arising from this source alone; and there is scarcely a disorder wherein this state of brain is not assigned as one of the most prominent agents in disturbing the bodily health, and establishing disease. Fevers, jaundice, gout, consumption, insanity, dyspepsia, and a hundred other diseases are so often thus created, that it would almost appear to be the sole agent in their production. And yet, with all this profusion of advice and description, I cannot call to mind a single writer who has attempted to explain the *mode* in which these innumerable effects are produced; yet, till this be clearly understood, we are not in possession of half the available means of modifying or removing them. The distress brought on by this inability to guide the thought, — a frequent consequence of great anxiety,— this inability to use the two brains concurrently, that is, to exercise *attention* or study, is one of the most pitiable states of mind that can be conceived. Happy those who have never had experience of the infliction,—the utility of works of imagination is thoroughly appreciated in such cases, and the sufferer would be always reading. In following the ideas of another man, he can generally leave his own intellectual organs in quiet; the discordant action of the two brains may thus subside perhaps into repose, and on resuming their duties they may have re-established the unison and consentaneity which is necessary to the tranquil exercise of the mind. On such occasions, if there be no object of tender fondness, whose soothing blandishments can turn the current of the thoughts, — if a man look only with terror to the time when

> "Shall dawn the dreary morrow; and the toils,
> The cares, the ills of life, with scarcely hope
> To brighten the involving gloom, and save
> The fainting spirit,"

on these occasions, we feel acutely the value of such a writer as Charles Dickens, — a man whose *medical services*, if I may so term them, would have been cheaply purchased by the nation at the price of the largest fortune ever possessed by an individual. How many a harassed brain has been soothed by his delightful fictions ; how many a lingering disease has been rendered endurable ; from how many has he not directed the dismal prospect of inevitable death ; to how many an aching heart has he brought consolation and comfort and the temporary oblivion of sorrow ; how many a suicide has he prevented ; and how many a bewildered brain placed in repose !

Such men have their mission, — they are sent into the world by a benevolent Deity for a specific purpose, and they may be compared to the blessed remedies which have been created for the relief of sufferers. I do not hesitate to say that I attribute the recovery of many a nervous patient to the mental composure produced by reading his admirable stories, in which there is nothing to detract from the entire satisfaction and assent of a virtuous mind.

CHAPTER VII.

RELIGIOUS EXCITEMENT AND NERVOUSNESS.

The writer has had many cases of nervous depression and melancholy resulting from religious excitement, and what are known as revivals, although these cases are not so common as they formerly were. Occasionally a nervous patient, who believes himself or herself to have committed the unpardonable sin, and to be, therefore, destined to everlasting perdition, is brought to the writer for treatment; but cases of what may be called religious insanity are not so common now as formerly, owing to the fact of a softening of the creeds, and the elimination of the terrible penal articles of faith, which once were insisted on more than all the rest. Hysteria in connection with religious revivals is a well-known medical phenomenon. When the nerves, especially of uneducated people, of women in particular, who are unaccustomed to self-control, are powerfully wrought upon by the rude but powerful appeals and eloquence of a revivalist preacher, paroxysms, convulsions, and outcries are the natural enough expressions of the overwrought feelings of the auditors. Hysteria seizes upon some extremely susceptible female, and becomes straightway contagious. In fact, several leading nervous disorders, such as catalepsy, ecstasy, chorea or St. Vitus' dance, and hysteria are historically associated with religious excitements. Dr. Hammond truly says: "Most of

the religious impostors, who have at various times made their appearance, and many very sincere and devout persons, have been *ecstatics*." "In ecstasy," he says, "the eyes are open, the lips parted; the face is turned upward, the hands are often outstretched; the body is erect and raised to its utmost height. A peculiar radiant smile illumes the countenance, and the whole aspect is that of intense mental exaltation. In its combination with catalepsy, chorea, and hysteria, ecstasy has played an important part in the history of the civilized world, — at one time leading to a belief in witchcraft; at another, to demoniac and angelic possession; at another, to mesmerism and clairvoyance; and, in our day, to spiritualism. Ecstasy, though not entirely confined to the female sex, is very much more common in women than in men. It appears to be produced in those who are of delicate and sensitive nervous organizations by intense mental concentration on some one particular subject, — generally one connected with religion. It was formerly quite common among the inmates of convents, and is now not unfrequently met with at camp-meetings and spiritualistic gatherings." Chorea, or St. Vitus' dance, is another well-known form of disease having religious associations. Hence its name. The convulsions and paroxysms of this nervous affection are often of the most extraordinary character. "This affection," we again quote from Dr. Hammond's admirable work entitled "Diseases of the Nervous System," "has often prevailed epidemically. The first authentic visitation of the kind was one which occurred at Aix-la-Chapelle, in 1374. This was in the form of a dancing mania. It was named St. John's Dance.

"The men and women subject to it met in the streets and churches, where they formed circles hand in hand, and, appearing to have lost all control, continued dancing, regardless of the by-standers, for hours together, in wild delirium,

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until at length they fell to the ground in a state of exhaustion. . . . While dancing, they neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, — their fancies conjuring up spirits, whose names they shrieked out. Some of them afterwards asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high; others, during the paroxysm, saw the heavens open and the Saviour enthroned with the Virgin Mary, — according as the religious notions of the age were strangely or variously reflected in their imaginations. . . .

"Some religious monomaniacs are never safe. Pinel relates the case of a fanatic who conceived the idea that mankind should be regenerated by the baptism of blood; and under this delusion he cut the throats of all his children, and would have murdered his wife, had she not effected her escape. Sixteen years afterwards, when a patient in the Bicetre, he murdered two of his fellow-patients, and would have killed all the inmates in the hospital, if his homicidal propensity had not been restrained.

"In our own country we have had the Jumpers and the Shakers."

In these practical, matter-of-fact days, the subjects of these nervo-religious excitements, paroxysms, and convulsions are cured of their disorders by an administration of the bromide of potassium, or some of the other bromides, combined with the oxide or sulphate of zinc and strychnia and other tonics, reinforced by a proper hygiene of exercise in the air and nutritious diet.

The physical phenomena of "the revival" can be shown to present, in their predisposing and exciting causes, in their progress and in their results, a precise resemblance to the hysteria commonly seen in medical practice, and produced either by secular terrors or by amatory reverie. We are

clearly entitled to consider them as belonging to the same family, and as being in fact very striking instances of morbid action. Without trespassing upon the domain of the theologian, yet we may regard these phenomena in their pathological relations, and may point out the methods by which they may be prevented, and the manner in which they may be overcome. It is incontestible that love to God, founded upon an assurance of God's love to man, is the only possible basis of Christian faith and duty; and it is inconceivable that love to God can be kindled at the flames of a literal hell. Denunciations of the wrath to come, and frantic appeals to the terrors of a congregation, produce either hysteria or indifference,— either shake the physical frame, by positive dread of impending torture, and mere selfish fears for personal safety, or else harden the listeners by the natural reaction of the human spirit against threats. "Howling about hell-fire in bad grammar," as Thackeray says, very frequently expresses nothing but the longing of the preacher to persecute. I hold, therefore, that these denunciations of the wrath to come, made prominent as the leading and essential feature of scriptural teaching, are without any shadow of justification or excuse. Hysteria, originating in terror, maintained for effect, terminating in profligacy or insanity, is a sad contrast to the peace that passeth understanding. But, as I have said, in these days of science and rational views, instances of religious melancholy and insanity are becoming fewer and fewer; as those physicians, who, like the writer, make the treatment of nervous affections a specialty, can testify; although such cases are by no means rare. Interesting cases of this kind might be cited from the author's own professional experience, and described at length, but it is, perhaps, unnecessary. More or less of such cases can be found in every lunatic asylum. Most of them are curable by the powerful remedies for nervous affections, which have been added to the Materia Medica within the last decade.

CHAPTER VIII.

ILLUSIONS AND HALLUCINATIONS.

It is said that hallucinations of the senses arise from some defect in the organs of sense, or from some unusual circumstance attending the object. Hallucinations are sometimes symptoms of general disease, as in fevers. The extent to which we are subject to illusions and hallucinations shows that we are fearfully and wonderfully made. The most aggravated murders are frequently committed by persons who are the victims of fixed ideas and hallucinations. They are often aware of the fact that they are laboring under mental disease, and yet they cannot hold themselves back from the perpetration of the dreadful crime to which they are irresistibly impelled. The subject of hallucination is a most important and interesting one. The various religions owe to the hallucinations of their so-called holy personages all their accounts of supernatural beings and incidents. When a person actually insists that he sees, hears, or feels what no one near him can see, hear, or feel, the question arises, Are the senses which convey these impressions to the brain in a sound condition, or is his mind delirious? Is the cause of the hallucination external or internal? In order to answer this question, we must first inquire how far the senses are capable of misleading the reason and urging the imagination to unconnected dreams. We know that the nervous

system is influenced by the condition of the body. Privation of food, for instance, indulgence in alcoholic stimulants, habits of narcotism, and congestion of the brain will powerfully affect the nervous system, and through it produce illusions and hallucinations of the senses. In fact, the history of mankind, and the experience of those who have had the opportunity of studying the ills to which flesh is heir, prove that the manifold causes which give rise to hallucinations can be referred to innumerable sources, which oftentimes escape the curiosity of the most watchful and intelligent observer. The power of the imagination is proverbial. Shakespeare says the poet, the lover, and the madman are of imagination all compact. The latter he represents as seeing more devils than vast hell can hold. Whatever a person firmly believes, that *to him* is a reality. So that an illusion or hallucination, no matter how wild and irrational it may be, has all the effect of a reality on the subject of it. There is no limit to the force of a morbid imagination, and the mad pranks and delusions to which it will reduce its unfortunate victims. Burton asks, "What will not a fearful man conceive in the dark? What strange forms of bugbears, devils, witches, goblins? Melancholy and sick men, he says, conceive so many fantastical visions, apparitions to themselves, and have so many absurd apparitions, as that they are kings, lords, cocks, bears, apes, owls."

Burton furnishes perhaps as many and as striking instances of illusions, delusions, and hallucinations as any other writer. He gives the case of a baker, who thought he was composed of butter, and did not dare to sit in the sun or come near the fire for fear of being melted. Another hallucinant thought he was a nightingale, and sang all night; and another that he was a glass pitcher, and would let nobody approach him, lest he should be broken. Recorded delusions of a similar nature are innumerable. Old writers on

the subject of melancholy and insanity furnish as varied instances as the most recent authorities, and apparently entertain as correct notions of the causes of such delusions. Wierus, an old author, illustrates the force of a diseased imagination by saying that persons suffering from hydrophobia seem to see the picture of a dog still in their water. And *apropos* of hydrophobia, Dr. D. H. Tuke has lately published a work on the Influence of the "Mind upon the Body," and in it supports the proposition that hydrophobia is produced solely by the action of the imagination. The author cites cases where, beyond all doubt, hydrophobic symptoms were developed without inoculation. A notable instance is that of a physician of Lyons (France), named Chormel, who, having aided in the dissection of several victims of the disorder, imagined that he had been inoculated with the virus. On attempting to drink he was seized with spasm of the pharynx, and in this condition roamed about the streets for three days. At length his friends succeeded in convincing him of the groundlessness of his apprehensions, and he at once recovered. Bush also tells of spontaneous cases of hydrophobia from no other cause but fear and association of ideas. A German physician, too, Dr. Marx, of Göttingen, is disposed to take this view of hydrophobia, and to regard it as a psychical affection, the result of morbid excitement of the imagination. This view is confirmed by the fact that young children, who are not acquainted with the common belief as to hydrophobia, may be bitten by mad dogs and escape spasms and madness. We are indebted to the "Popular Science Monthly" for the above statements in reference to hydrophobia. Certain it is that this awful affection leaves no traces of itself on the brain and nerves of its victim. But as for young children being bitten with impunity by rabid dogs, we doubt. Indeed, we know of cases proving as fatal to children as to adults.

In countries with superstitious forms of religious belief, which nobody questions, the most intelligent traveller feels the influence of the universal superstition stealing upon him. The curse of a priest in the Sandwich Islands, in the old days of barbarism, would take visible effect upon its object, and destroy him. A superstition gets entire possession of the soul, so to speak, of the ignorant portion of a community, and it takes generations of culture to rid them of it. Their imaginations are possessed by it. Hence the strength of old religions, after they have been proved to be false.

The hallucinations of the sense of hearing are the most frequent. Amongst those who are decidedly insane, this species of false perception is infinitely more common than that of any other of the senses; it is not only one voice that is heard, but many; it is not only the less instructed, but the intellectual; it is among men of great imagination and deep learning. It haunts the mind in the form of a demon, as in the case of the poet Tasso, or as Satan wrangling upon divinity, as it did with the disputant Luther (who actually hurled his inkstand at the Devil), or as a Deity revealing his will, with the contemplative Swedenborg, who gives the date and circumstances of his first interview with the Lord in the most matter-of-fact, off-hand way. The most simple of the hallucinations is that of noises in the ear, such as sounds made during the night in the chimney. I have known an invalid complain of a perfectly sleepless night occurring for weeks, in consequence of the idea that dwelt upon her mind that some swallows were building a nest in her chimney. She had lately returned from the country. At the end of a few weeks she had an intermittent fever, after which the noises ceased. A singular case is recorded in the books as having occurred in Paris in 1831, during one of those bloody *émeutes* which have for so long a time been characteristic of that gay but ill-starred city. A female saw

her husband, a workman, fall dead at her feet, struck by a ball. A month after this event she was safely delivered of a child; but the tenth day after her accouchement, delirium came on. At its commencement she heard the noise of cannon, the firing of pickets, the whistling of balls. She ran into the country, hoping, in getting out of the city, to escape from the noises by which she was pursued. She was arrested and conducted to the Salpetriere (the insane asylum). At the end of a month she was completely restored. During ten years, six similar paroxysms took place, and the delirium always commenced with hallucination of sound. Always did this patient run into the country to escape from ideal discharges of cannon, from firing of guns. Frequently, in the precipitation of her flight, she fell into the water; twice she threw herself into it to escape the horror of the sounds that reminded her of the death of her husband, and recalled the miseries she endured. Single voices are seldom so common as two voices, and the subject is oftentimes accompanied and caused by some emotion in the mind.

A young girl heard a voice constantly calling her thief, and reproaching her with the object stolen. At length she returned the article, and the hallucination soon ceased. This was a case of conscience as well as of hallucination. Conscience let loose the Furies, hideous hags, upon the murderer in ancient times, giving him no rest, chasing him from land to land. Some females, who have led the most irreproachable lives, have heard voices calling them by the worst epithets. One of the most singular hallucinations to which the sense of hearing lends itself is, to the carrying on a long, uninterrupted conversation, during which the individual speaks, addresses a third party, and waits to listen to the reply, which seems to be perfectly new to the apparent listener, who gives every attention. Who that reads the life of Tasso, the great Italian poet already alluded to, as given by

his friend and biographer, Manso, does not remember to have either himself met with a patient who has reminded him of the description, or has heard from a medical friend some tale which has carried the same marvellous air with it? Any one accustomed to what occurs within lunatic establishments must have seen patients walking up and down, holding an imaginary conversation, or must have heard during the night, in some cell or other, an earnest, long-continued dialogue. During the hallucinations produced by taking the Indian hemp, the intensity of the sense of sound is most startling. The celebrated Theodore Gaultier related to Dr. Moreau, in poetic language, which it is hopeless to attempt to translate so as to give an idea of the style of the imaginative author, the sensations produced. He says that "his sense of hearing was prodigiously developed. I heard the noise of colors, — green, red, blue, yellow sounds, reached me in waves perfectly distinct; a glass overthrown, the creaking of a footstool, a word pronounced low, vibrated and shook me like peals of thunder; my own voice appeared to me so loud that I dared not speak, for fear of shattering the walls around me, or of making me burst like an explosive shell; more than five hundred clocks rang out the hour with an harmonious, silvery sound; every sonorous object sounded like the note of an harmonica or the æolian harp: I swam or floated in an ocean of sound."

The imagination is engaged in a very different manner where the *sight* is in fault, than where hearing is disordered; it does not paint such exciting scenes; it does not bring the reason into action, as we have seen it during the disturbance of the latter organ, when conversations sometimes of an intellectual character occur, where the individual has to listen to the advice, the reproaches, or the threats of a supposed stranger. It is generally one object alone that attracts the attention, or that is complained of; it may appear under various shapes, but it is more generally connected with

some idea that has previously struck with great intensity on the mind; thus a person, after being in danger of his life at a bridge, saw afterwards a precipice with a fearful abyss at his feet.

Those whose minds are strongly bent on devotion, and have yielded up their thoughts to religion, see angels and the Virgin Mary. I was once in a church where the clergyman, who had for some time betrayed symptoms bordering on alienation of mind, but who never had evinced its actual presence, broke off his discourse, pointing to the presence of the Holy Ghost. He was fortunately prevented, by timely attention, from becoming insane, but he was considered ever afterwards incapable of resuming his duties.

It is not generally known that the first Bonaparte was, in the early part of his career, subject to an hallucination of sight in consequence of the vivid impression made upon his mind by one of the occurrences of his eventful life. In the heat of one of the many battles in which he was engaged, he was carried by the ardor of his courage, into the very midst of the slaughter. His immediate followers fled; he was left alone, surrounded on all sides by fierce assailants. How he escaped from death unhurt no one was ever able to ascertain; it was one of those miracles which seemed to be worked by his guardian genius. The deep impression, however, of the danger which he had run, was not effaced when he mounted the throne; at certain intervals a striking hallucination occurred. Suddenly, in the midst of the silence of the palace, loud cries were occasionally heard; the emperor was seen fighting with the utmost desperation amongst his visionary foes. It lasted but a very short period, but during that time the battle seemed to be a tremendous one. This gave rise to the report that he was subject to epileptic fits. These visions will not unfrequently cease upon shutting the eyes: they more generally, however, are permanent.

Starvation will cause hallucinations of the sight. The

narratives of ships wrecked at sea abound with singular phenomena; the famished victims have seen not only beings before them luring them on with promised food, but they have had painted before them the most beautiful scenes which the imagination can display,—gardens abounding with Hesperian fruit, crystal streams, delicious rills, ever-blooming flowers, and all the fascinations that the poet and the painter give to the Elysian fields. Sometimes angels minister to them, robed in celestial garbs, and their last hours are rendered happy by the delusions to which the senses gladly lend themselves. There are certain tonics which also have an effect somewhat extraordinary; of this nature are the preparations of iron, more especially when administered to delicate females, but neither in my own practice nor in that of the many friends with whom I have communicated, have I learned any particulars springing from actual experience.

Hallucinations affecting the sense of *smell* are not unfrequent; but they seldom attract much attention, and unless they exist in unison with some more striking derangement of the sensorial system, afford but little scope for observation. It is very generally associated with a deranged state of the sense of taste; but this does not necessarily occur. An insane person believed firmly that he could detect the existence of cholera by the odor which followed it everywhere. He was first struck with it, he said, while dining; it came upon him like the smell of a dead body; he recognized its existence in a city, directly he entered it. Esquirol had under his care a female who fancied that she had a most disagreeable odor about her; and on being asked to go into the garden, she refused, on the plea that she was well aware that she should kill all the vegetables there, by the scent which she bore. A certain person insisted that his wife exhaled at all times a most ambrosial smell, which captivated all who approached her; when the fact was she was very unsavory

and untidy, and remarkable for anything rather than cleanliness. I have known patients who believed that every object round them was impregnated with some disagreeable odor. This is not at all uncommon towards the termination of fever. Those who enjoy religious ecstasies among maniacs speak of the delicious perfumes, of the divine exhalations, of the camphor, the myrrh, the frankincense; the food is holy manna, and the blood is that of the lamb, sweet and savory. The language used by the poor beings is generally that of happiness, and they are frequently made partakers of some delicious repasts, which ordinary mortals know not of.

The hallucination of *touch* varies exceedingly. It is singular enough to find, in an establishment where an individual has been admitted who believes that he has rats crawling over him, that spiders infest him, that he receives occasional blows from an unknown hand, how very soon several others of the confined persons take up the same notion; and if by any chance suspicion falls upon any attendant that he has been accessory to a blow, all the others who complain, whether from cunning or from the wish to obtain the compassion which is generally shown, load the servant with charges of being the person who annoys them. Some invalids will insist on it that cold water has been thrown on their heads; others that corrosive substances and poisonous powders have been thrown upon them; that hence their bodies are metamorphosed; that they are unlike what they were, and that they are grossly maltreated. Some of them cannot bear the slightest breath of air to blow upon their bodies; those who have witnessed the horror expressed by patients laboring under hydrophobia when the least air falls upon them, can judge of the horror which some experience when they fancy that they are blown upon.

An actress who had become melancholy, after expatiating

with considerable energy upon the miseries which were inflicted upon her by unknown hands, added, "They are not satisfied with these cruelties, but they are employed blowing, night and day, ingredients which destroy me, upon my skin, which is as pure and unsullied as my heart." Many patients believe that they have swallowed animals, reptiles, insects; and even those who have no other indication of the slightest alteration of intellect, cannot be induced to lay aside the impression. Sometimes they beat the stomach and bowels with great violence, often wounding and severely hurting themselves. They assert that the internal organs have disappeared; they know it by the sense of emptiness, by the hollowness of sound. They occasionally accuse a friend of being the cause, or they lay it at the door of some one to whom they have taken, without apparent cause, a violent aversion. Spiders and mice are frequently charged with being the cause of the mischief, and of having entered into the stomach. Sometimes the head is very light, at others it is enormously heavy; sometimes one arm is longer than another; there may be three arms, — in fact, when the sense of touch and the general sensibility are disordered, hallucination appears in a thousand indescribable forms, altering every day, and exhibiting itself under the most extravagant guises. Sleep vanishes under their influence; day and night, for a series of years, are the unfortunate individuals haunted and persecuted; devils take them by the feet during the night, strike them constantly upon the back at the moment when they most require repose; they are seized by vampires, who during the night suck the blood from their veins till atrophy and deformity of their organs take place. Invisible agency is constantly at work. In such morbid phenomena as these, undoubtedly Salem witchcraft had its rise. The bewitched people were the subjects of hallucinations of hearing, sight, and touch. There are cases

— especially in diseased states, such as delirium tremens — in which the senses all partake of the hallucination alike; the eye, the touch, the hearing, the smell, and the taste are so disordered as to convey unhealthy impressions to the brain. Most generally one of the organs so predominates over the other, that its deviations only are complained of; it is only by examination of the invalid, and by repeated conversation, however, that this is perceptible. At a leading insane asylum there is at present a female, about sixty-five years of age, who has now been of unsound mind for five or six years; she makes daily complaints of the frightful sufferings she has to endure, and which are consequent upon the hallucinations in which all her senses are wrapt. At night she sees forms that menace her, — heads of bodies which frighten her. Sometimes it is her own image, her own portrait, that is represented to her. Once she saw her mother, who has been some time dead, crawl towards her on four paws. She constantly hears voices which insult her; oftentimes they tell her melancholy tales, — for instance, they repeat that her mother is dead. They send the bodies of putrefying children to her. She has sometimes the complete odor of arsenic. This woman will eat nothing but bread, because both flesh and vegetables taste of arsenic. Besides all this, she receives blows upon the head — upon the limbs. They give her cramps in the legs, icy sweats, colds; they take away her breath, and drive the blood to her head.

Sometimes an individual gets a fixed idea, which remains known only to himself. He struggles with it perhaps for years, nor reveals the contest going on within him. This "fixed idea" may be either to destroy himself, or to kill some near and dear relative, a wife or mother, for instance. It is only when the madness bursts out with uncontrollable vehemence in the perpetration of the terrible act, that it is

known. The suicide has long fought with himself, before he has rushed to the fatal extreme; the homicidal maniac conceals for an immense length of time the horrors by which he is pursued; and it is only when he can bear his fate no longer, that he divulges his long-kept secret. There are cases recorded where men laboring under the murderous mania have had themselves bound hand and foot, notifying the persons whom they felt irresistibly impelled to kill, of the state of mind in which they were. Sometimes the passion of fear will take complete possession of a person. He has a dread of the most overwhelming kind, which gradually grows into a most complete oppression, weighing down all the other faculties of mind. It is utterly in vain that he endeavors to drive away the fixed idea; it remains rooted to the very inmost part of his being; the very circumstance of his attempting to drive it from him only roots it deeper. At length, completely overwhelmed with the intensity of the suffering, he yields himself up to that sole persecuting thought; there is a complete personal inertia, which forbids him to mingle further with the world; the consciousness of surrounding objects is lost, as well as that internal conscience which governs the internal actions of man. The result of this state of mind is quickly conveyed to the body, which not only sympathizes with it, but is completely governed by it; it is not only that the appetite fails, the power of enjoyment, and the desire for locomotion, but the nutrition of the body ceases, the secretions are not duly performed, the circulation becomes languid, and all the organs are in a state of torpor; this proceeds, gradually increasing, till there is an almost complete suspension of all the powers by which life is carried on; the blood, no longer oxygenized, is full of carbon; it slowly meanders through the liver, where the veins stagnate with their fluid; the brain is after some time surcharged with this venous blood, and that state which

approaches the third stage of intoxication supervenes. During this crisis there is, as in ordinary insanity, a sudden change for the better where relief is obtained; but where it has not been watched and prepared for, there is a violent paroxysm, whose intensity bears proportion to the previous depression. This action and reaction, so strongly marked in intermittent fever, affecting that portion of the nervous system which is contained within the spinal column, producing the phenomenon in its greatest extent, of universal tremor, acting upon the brain, evidently causes a large portion of that which is displayed in the insane, under the guise of alternate depression and excitement.

The sudden crisis, which leads to sudden, impulsive acts, in the insane that had previously exhibited the form only of imbecility and stupidity, most probably depends upon some altered state of the arterial circulation, some momentary determination to the brain; and, were we followers of the doctrines of Gall and Spurzheim to their fullest extent, we should be naturally led to inquire whether the organ upon which they assert that homicide depends, was the seat of some instantaneous action. When we find that there exists in nature vegetable substances which produce this effect, or which suddenly call into action the desire for spilling blood, we must grant that this is owing to some condition of the brain, produced by a physical agent.

It is not brandy or whiskey alone that will, in some constitutions, cause a fearful ferocity (*vide* the daily accounts of crime in New York city among the thugs of that metropolis), but there is a vegetable, a species of mushroom, called *Ornanita muscovia*, whose effects are of the most striking character. Some of the Cossack tribes never go to battle without adding a portion to the spirituous liquors which they take, and they become inspired with a blood-thirstiness which nothing can resist. Even the *Cannabis indica* has been known

to inspire even a reflecting and humane individual with a desire for destruction; it often fills the mind with an impulse that cannot be resisted. On one occasion, when Dr. Moreau had himself taken it, by way of experiment, he piteously entreated that the window should be immediately shut, as he felt coming over him an irresistible propensity to throw himself out.

CHAPTER IX.

SLEEP AND SLEEPLESSNESS.

What refreshment and reinvigoration good sound sleep brings to jaded, deranged nerves! Sancho Panza blessed the man who invented sleep. It is, indeed, the best medicine of nervous disease, and it is precisely the most difficult thing for the nervous patient to obtain,— that is, good, sound, natural sleep. People may sleep too little or too much, too early or too late. Overmuch sleep leads to corpulence, sluggishness of the general functions, congestions of the chief viscera, especially of the head, endangering attacks of apoplexy and death. It is the *bon vivant* who is disposed to sleep; a doze in his easy-chair after dinner, and an inclination to nod over the newspaper or during a prolonged discourse. The well-nourished require more sleep than the lean, and the phlegmatic more than the irritable. But in the present day somnolent obesity is a rare phenomenon. The evil that we have to complain of, is an incapability of sleeping enough. There is no fixed duration for sleep. The world roars around us like a torrent of events. Everything is rapid; and we are whirled with velocity in the midst of a vortex as vast as it is incessant. Repose there is none; and instead of sleeping on a pillow of down, we stand continually on the tiptoe of expectation, awaiting the coming on of to-morrow, big, as it were, with the doom of some great hereafter. It

is impossible to sleep; nay, it is scarcely possible to survive. This morbid excitement, fictitious though it be, is in reality the pregnant source of a large family of ailments, of which mania is neither the youngest nor the most insignificant child.

A sleepless night cannot be recovered from by any subsequent siesta snatched out of the business of the day. We must wait for the following night, go to bed early, and sleep soundly, if we hope to awake refreshed the next morning. Nor can exhaustion from the want of sleep be relieved by stimulants, either in the shape of food or medicine, although the late hours of the modern world, which induce a perpetual lassitude both of mind and body, are alleged as one of the chief reasons, if not of the poor excuses, for indulging in wine and hot condiments. There is a form of conditional drunkenness to which people in good society are addicted, without being aware of it, that produces effects quite as pernicious as dram-drinking among the lower orders: we mean the free use of wine at the dinner-table. Such persons without suffering in appearance, or losing flesh, get into a chronic state of disturbed health, manifested by impaired digestion and irritable nerves. Deprived of his usual modicum, the gentleman is unable to sleep, and becomes in a certain degree delirious, unless allowed to return to his ordinary habits. There is likewise a chronic sleeplessness, chiefly among the better classes, where individuals suffer from an almost total want of rest for months together, without any loss of flesh, or visible impairment of the constitution. Such cases get well of themselves, after a shorter or longer period, and do not require any medical treatment.

The evil consequences of not sleeping enough are clearly manifested in the features, which become pale, lank, and sharp; the eye cold, blanched, and watery; the hair shabby, straight, and long; the deportment wan, and the feelings lan-

guid. The palms of the hands are hot, the lips dry and peeling, and the utterance feeble or tremulous, while a low fever feeds upon the vitals. If the want of sleep is voluntary, as in the pursuit of some necessary or interesting occupation, or in consequence of fashionable engagements, it saps the strength at an early period; men become old at thirty-five or forty; and women, wasted in their prime, suffer from difficult childbirth, or die in consequence of it. A city life is most baneful in this respect, and may be considered as limiting the average of longevity to forty-five or fifty years.

Those who go to bed late rise early, and early risers are for the most part forced to retire equally early. Students, who require more sleep than others, usually rise too early, and sit up too late. Modern fine children, who are taught to mimic their elders, are exotics, flowering in an artificial atmosphere, but withering without fruit long before the morning of their days has passed over their debilitated heads. Nor learning nor fame nor money nor power is equivalent to an elastic, vigorous constitution; nor are the lesser virtues usually styled accomplishments, pleasing and graceful as they may be, of any value in comparison with the decrepit nerves, and the still more decrepit morals, with which they have been purchased.

The older physicians paid much more attention to this inquiry than modern physicians and physiologists are accustomed to do. Hippocrates long ago pointed out the importance of denoting the kind of sleep, the nature of the dreams, and the particular posture of the sleeper in bed, as an accessory means of forming a correct diagnosis of his disease. Allowing for some puerilities peculiar to the remote epoch in which he flourished, the fourth book of his treatise, entitled "Regimen," is a much more practical essay on this subject than anything else of the sort that has yet been put forth by later pathologists. Although Dr. Marshall Hall observes

that sleep is a cerebral affection, and that the spinal and ganglionic systems never sleep, yet our notions are, we cannot help avowing, somewhat different from his on this subject. It seems to us that the power of sleeping is much more intimately connected with the medulla oblongata and spinal cord, than with the cerebrum and superior portions of the hemispheres. The whole nervous system is a unit or entity, in its essence compounded of distinct parts, entirely united in their different, but by no means separate functions. The intellectual powers would seem to belong to the cerebra, perhaps to the cortical substance, or gray matter alone, as some suppose; the several senses would appear to have their origin or root at the base of the brain; the faculties of the mere animal organs are apparently governed by the cerebellum, while those of locomotion, speech, respiration, etc., are evidently connected with the pons variolii, the medulla oblongata, and the spinal cord. Now sleep is an absolute suspension of sense and motion; but then these two functions, or sets of functions, are under the rule of the spinal cord; so that the spinal cord would seem to be the immediate locality, if not the true centre, both of rest and action, progression and repose, locomotion and inertia, or, in other words, of waking and sleeping.

There are several physiological as well as pathological phenomena confirmative of this view of the case. It has been proved that the pupil of the eye is closed almost to a point not larger than a pin-hole during sleep; that the eyeball likewise is turned upwards, and that the upper eyelid falls down. These phenomena are also the symptoms set down as indicating disturbance at the base of the brain among the diseases of that organ. For a very contracted pupil is almost always a fatal sign, by showing loss of power at the origin of the respiratory nerves, whether from effusion or injury or natural dissolution. The turning upwards of the eyeball

is a common symptom of convulsive affections proceeding from spinal irritation, or mechanical mischief of that part. And the drooping of the eyelid is indicative of incipient paralysis, or loss of power, in the cord and medulla oblongata, often forerunning paraplegia, loss of speech, and failure of the locomotive power in general. These signs, which are, physiologically speaking, in one sense the phenomena of ordinary sleep, become, in another, leading symptoms in the natural history of disease of the brain; and both the symptoms on the one hand, and the phenomena on the other, point directly to one part of the grand system of nerves, namely, the medulla oblongata and the spinal cord.

That sleep should be less connected with the cerebrum than with the spinal cord is not so unlikely, if we consider the nature of each part of the nervous system respectively; for we shall be enabled to remark, that sleep, which is the suspension of action, belongs to the spinal portion rather than to the brain or cerebrum, which, as the focus of will and intelligence, only exerts itself in governing the rest of the frame, and ceases from exertion as soon as the rest of its parts cease to require governing. Disturbance of the superior hemispheres will of course hinder the cord from sleeping quite as effectually as irritation of any other part of the body would do; but we mean that, in health, sleep belongs to the cord rather than to the brain. Wakefulness is one of the most vexatious symptoms of spinal disease; of spinal exhaustion from venery, or excessive pedestrianism; of spinal irritation produced by a sort of reflex action from acid indigestion accompanied with cramps of the legs, and of profuse diarrhœa, exhausting the spinal cord so greatly as to give rise to incurable paraplegia. All these signs, symptoms, and phenomena lead to one and the same conclusion, — that the spinal cord, rather than brain, is chiefly concerned in sleep and sleeplessness. But

the ablest psychologist must admit that it is beyond his power to explain the nature of sleep. The best works on physiology offer us nothing more satisfactory than probable opinions, curious conjectures, and interesting theories, while pretending to solve a problem which still remains, as it has hitherto remained, the monitor of the end of all things, — the daily rehearsal of our death. There are some curious instances on record of sleeping and waking. In Turkey, if a person happens to fall asleep in the neighborhood of a poppy-field, and the wind blows over towards him, he becomes gradually narcotized, and would die, if the country people, who are well acquainted with the circumstance, did not bring him to the next well or stream, and empty pitcher after pitcher on his face and body. There is a reported case of a gentleman, thirty years of age, who, from long-continued sleeplessness, was reduced to a complete living skeleton, unable to stand on his legs. It was partly owing to disease, but chiefly to the abuse of mercury and opium, until at last, unable to pursue his business, he sank into abject poverty and woe.

The power of will may obtain or dissipate sleep. Some persons have the power of willing themselves asleep as soon as they lie down. There is no doubt that the habit of doing so may be easily acquired. Some people require vastly more sleep than others. There are cases recorded of people sleeping seventeen or eighteen hours a day for years, or taking a solid nap a month or six weeks in length, while in other cases four or five hours' sleep in the twenty-four was all that was taken or needed by persons remarkable for their activity and influence over mankind. According to Wilkinson, the ancient Egyptians, who, as everybody knows, shaved their scalps, slept with their heads resting on an iron prong, like that of a pitchfork, welted with something soft. This they did for the sake of keeping their heads cool, which they supposed strengthened their wits.

The sentinel will sleep at his post; an entire battalion of cavalry have been known to sleep on the march. It is about three or four o'clock in the morning that this propensity to sleep is the most overpowering, — the moment seized upon by troops for driving in the enemy's outposts, and taking the bivouac by surprise. Maniacs are reported, particularly in the eastern hemisphere, to become furiously wakeful during the full of the moon, more especially when the deteriorating ray of its polarized light is permitted to fall into their apartments, — hence the name lunatics. Sleeping directly in the moon's rays is said to be at all times prejudicial.

There is certainly a greater proneness to disease during sleep than in the waking state; for those who pass the night in malarious districts inevitably become infected with the noxious air, while travellers who go through without stopping escape the miasma. Intense cold induces sleep, and they who perish in the snow sleep on till they sleep the sleep of death. Children sleep a great deal; infants much more irregularly; while the old man scarcely slumbers at all, watching, as it were, his end approaching. The bromides of potassium, etc., are now greatly used to drug the posset of repose in disease and nervous attacks. Allowing the patient to get up and wash himself and walk about his room, making his bed afresh, giving him a glass of cold water, or wine and water, will often succeed in procuring refreshing sleep when all other means have failed. These are practical points calling for experience and judgment in their application. In these instances of wakefulness, which are frequently observed towards the close of acute diseases, it is always necessary to repeat the soporific or opiate for some time after the first symptoms have been checked. The same practice is likewise pre-eminently useful in the first stage of delirium tremens, in its congestive onset, before the sub-

acute inflammation and milky effusion have ensued. The irritability, watchfulness, and phantasmagoria of this peculiar malady are best treated by a combination of bitters, alkalis, and opiates, or else with tonics and opiates at the same time. Sometimes hot sponges applied to the head will cause sleep, and sometimes cold. Nothing will relieve the wakefulness of old age; nor should soporifics, particularly opium, ever be tried, since the dose that is sufficient to procure sleep, may end in death.

CHAPTER X.

EPILEPSY.

THOSE who have attended the lectures of Brown-Sequard, the greatest living neurologist, well remember how he produced the convulsions of epilepsy in a guinea-pig. This will illustrate the insight which is being obtained into the physiology and pathology of the nervous system. Epilepsy is the most celebrated of the neuroses. "It is," says Hammond, "characterized by paroxysms of more or less frequency and severity, during which consciousness is lost, and which may or may not be marked by slight spasm, or partial or general convulsions, or mental aberration, or by all these circumstances collectively. The essential element of the epileptic spasm is loss of consciousness." Some very famous men have been epileptics. There are slight paroxysms and severe.

"The respiration is forced and irregular, froth issues from the mouth, and, if the tongue has been bitten, it is covered with blood." During the seizure the epilept is liable to make the most outrageous and furious demonstrations. Some of the greatest writers have been epileptics. One of the greatest living British poets is said to be. Dr. Hammond gives as causes of epilepsy in one hundred and two of his cases, fright, anxiety, grief, over mental exertion, dentition, indigestion, venereal excesses, menstrual derangement,

blows on the head, falls, sunstroke, scarlet fever, measles, diphtheria, pregnancy, syphilis. The starting-point of epilepsy, according to Brown-Sequard, is often the sympathetic nerve; but generally the seat of primary derangement is, according to Reynolds, the medulla oblongata and upper portion of the spinal cord. The derangement consists in a perverted readiness of action in these organs, the result of such action being the induction of spasm in the contractile fibres of the vessels supplying the brain, and in those of the muscles of the face, pharynx, larynx, respiratory apparatus, and limbs generally. By contraction of the vessels the brain is deprived of blood, and consciousness is arrested; the face is or may be deprived of blood, and there is pallor; by contraction of the vessels, which have been mentioned, there is arrest of respiration, the chest walls are fixed, and the other phenomena of the first stage of the attack are brought on. The arrest of breathing leads to the special convulsions of asphyxia. The subsequent phenomena are those of blood poisoned by the retention of carbonic acid, and altered by the absence of a due amount of oxygen. It may be induced by conditions acting upon the nervous centres directly, such as mechanical injuries, overwork, insolation (sunstroke), emotional disturbances, excessive venery, etc. The bromides of potassium, lithium, and sodium, and the oxide of zinc, are invaluable remedial agents in the treatment of epilepsy. It was anciently called the falling sickness. The importance of hygiene in this neurose is considered equal if not superior to that of medicine. There are some practitioners, even, who look upon medicine as utterly useless in such cases, and place their sole reliance on such measures as serve to guard the patients against the causes which induce the fits, and favor the action of such natural agents as are capable of changing the constitution. Hippocrates recommended a change of climate.

Epileptic fits are much more common in extremes of heat and cold than in a climate little subject to atmospheric changes. Excess in quantity or quality of food or drink will prove injurious. More vegetable than animal food should be taken, and cooling fruits may also be used. Complete abstinence from wine, or at any rate the use of the least stimulant wines, is recommended, and such should only be taken in moderation. Those patients who are liable to be attacked during the night, should make but a light supper, to avoid increasing the cerebral plethora, which is always greater during sleep. Cleanliness, baths, frictions, and warm clothing are requisite. The hair should be cut short; in bed the patient should lie with his head high, to assist the circulation of the blood through the brain. Constipation should be avoided. Continence is essentially the virtue of the epileptic; sexual intercourse produces a nervous shock, which too closely resembles the emotion which occasions the epileptic attack, not to be attended with great danger. Those who practise onanism have in general the greatest number of fits. A peaceable and quiet life suits the epileptics best. Exercise is very salutary; an inactive, sedentary life increases the morbid predisposition, and renders the consequences of the fits more deplorable.

Gardening, horse exercise, the gymnasium, swimming, etc., are recommended. But out-door work, such as agriculture and gardening, are the best exercises. Variety of occupation, intermingled with amusing relaxations, will prove serviceable in cases of epilepsy. Intellectual employment requiring deep thought is injurious. Reading, drawing, music, light compositions, and the elements of chemistry, botany, physics, etc., afford great satisfaction, and sustain the moral powers instead of exhausting them. With respect to the treatment during the fit, it resolves itself almost entirely to the prevention of bodily danger by

falls or otherwise. The patient should generally be placed on his back in bed, all tight articles of clothing removed, the head a little raised by pillows, in order to diminish the determination of blood to the head, and the body placed a little on one side, in order to favor the discharge of saliva, which collects in quantity in the mouth, and might otherwise prevent the passage of air into the lungs. Some patients, when attacked during the night, have an unfortunate tendency to turn on the face, and unless carefully watched, and their position changed, may die asphyxiated. Another accident, which occurs in some instances, is the laceration, or even the amputation, of the tongue during the fit. To prevent this, a piece of wood, or a linen roll, may be placed between the teeth, when the fit is coming on.

CHAPTER XI.

THE SUICIDAL PROPENSITY.

It is said that as long as the most instant and efficient agents of self-destruction are openly sold in every street, at little or no price, and to any purchaser, without either let or hinderance, so long will suicides be frequent, and even increase. The victim of the more extreme forms of nervous disorder, from whatever cause arising, undoubtedly feels at times a propensity to suicide, even the valley of the shadow of death seeming to him a refuge from the ills of a deranged nervous system. The inventor of the revolver has probably furnished to the suicidally given the most efficient means of self-destruction. The writer was once talking, in his office, with a patient suffering from nervousness, who was detailing his misery and wretchedness, when, in the midst of his account of his condition, he suddenly drew a revolver, and putting the muzzle to his head, said he had a mind to blow his brains out on the spot. He had cocked the weapon, and the least motion of his tremulous forefinger would have been fatal. Here was a dilemma. With the utmost *sang froid*, the writer pretended to be struck by some peculiarity of the weapon, and quietly requested of his patient permission to examine it, at the same time expressing a wish to compare it with a revolver belonging to himself, which was in a neighboring closet. The weapon was politely handed over for examina-

tion, which of course terminated the possibility of a tragedy at that consultation. It is a fact that suicides are increasing to an alarming extent in this country. The most influential causes of suicide in a free, enterprising, commercial community like ours are the range given to the social passions; the hazard and losses in mercantile and joint-stock speculations and companies; habits of dissipation; the indolence and ennui consequent upon wealth and sated enjoyment; the importance attaching to public opinion, and the instability of that opinion; the violent shocks and collisions of opposing parties, and the details of crime and suicide which constitute a principal part of the daily reading of all classes of the community. The history of all nations has demonstrated the prevalence of this act, both as a disease and a psychological phenomenon, during periods of surpassing luxury, of criminal debasement, of public commotion, and of the decline of public and private spirit and virtue.

A French writer remarks that the high civilization and refinement, the luxury, the clash of interests, the repeated political changes, combine to keep the moral feelings of the Parisians in a state of tension. Life does not roll on in a peaceful and steady current, but rushes onward with the force and precipitation of a torrent. The drama of life is full of miscalculations, disappointments, disgusts, and despair; hence the numerous suicides.

When a person labors under a suicidal mania, we believe it may generally be recognized by other signs; as deep melancholy, eccentricity of conduct, etc. Most of those suicidally inclined labor under a constant depression of spirits, presaging nothing but evil; imagining that they have committed some heinous offence; that their friends have forsaken them, and are watching their movements; that they are hated and despised by the world; they complain of neglect; become morose and taciturn; utter bitter

complaints; weep; say they have committed the unpardonable sin; that their damnation is inevitable, etc. More or less bodily derangement is usually present in these cases, as a weak and irritable nervous system, quickened circulation, imperfect digestion, and especially derangement of the liver or hepatic function. After this state has continued for some time, the mental derangement becomes more prominent, and the wretched victim begins to see visions and to hear strange voices, and believes that he has communications from superior beings. At this time the idea of self-destruction is frequently if not constantly before the mind, and unless the patient be narrowly watched, he will finally succeed, after various attempts, in accomplishing his purpose. Suicides are most frequent among persons of the melancholy temperament and bilious constitution, with a pale or sallow or yellowish complexion, and hard or sharp features. But the suicidal act is not infrequently committed by the nervous and irritable, and even by the sanguine and plethoric. Females of this latter constitution occasionally attempt or perpetrate self-murder just before or during the catamenia, or from some irregularity of this evacuation. M. Esquirol states, that the scrofulous diathesis is remarkable in the number of suicides. Both sexes display the suicidal tendency, but the male sex most frequently. M. Esquirol considers the proportion of males to females to be three to one; but there are differences according to countries, arising from the greater or less influence of many of the circumstances shown to favor this act. Thus in France there are more suicides among women than in Germany. It has been observed, both in England and on the continent, that nearly two thirds of suicides were unmarried. This state, therefore, is much more favorable to self-destruction than the married condition. Suicides in states of mania or delirium occur either from some involun-

tary or blind impulse, or from some delusion, hallucination, or false perception. A patient for whom I was consulted during an attack of mania, from which he recovered, experienced after a time similar symptoms to those which ushered in the former attack. His friends were directed to take the necessary precautions regarding him; but these he eluded, and committed suicide. In melancholia, and other states of partial insanity, or even previously to any symptoms of insanity being sufficiently prominent to attract notice, or in consequence of some mental shock or perturbation, the patient may conceive that an internal voice calls upon him to commit suicide, and may sometime act in conformity with it. A lady consulted me on account of headache, during which she could not look upon a knife without experiencing a strong desire to use it against her own life; but her reason had always resisted the impulse, which disappeared after treatment. Among persons who have been but little accustomed to self-control, or to listen to the dictates of moral principles, such impulses are often soon acted upon. M. Esquirol furnishes several instances.

A monomaniac, he states, heard a voice within him say, "Kill thyself! kill thyself!" and he immediately obeyed the injunction. This writer remarks, that he has never known an instance of suicide from an irresistible impulse, without some secret grievances, real or imaginary, serving as motives to the suicidal propensity. There are few states of *partial insanity* that may not be attended or followed by this propensity. Of the delusions which characterize melancholia, there are none more productive of self-destruction, as Dr. Darwin has remarked, than the fear of future damnation and of present poverty, although the former apprehension grows less and less operative from the softening of the penal parts of religious creeds. Reverses, mortified pride, impatience under misfortune, and disappointments, are frequent causes of suicide, especially in commercial countries and

under free governments, where there is a constant straining, among almost all classes, after wealth, office, and other direct or indirect means of power. Instances of self-destruction from mortified pride, consequent upon the failure of attempts at becoming conspicuous at public meetings, in the senate, or at the bar, or even upon the boards of a theatre, are not rare in modern times. Self-murder has been often perpetrated in order to escape exposure and punishment consequent upon detected crimes. Indeed, this is one of the most common moral causes of suicide in this and other civilized countries, and instances of it are of daily occurrence. The desire of escaping from moral or physical pain, or from anticipated or impending want, is not unfrequently productive of self-destruction. Under this head may be comprehended *seduction*, and *despair* however produced. Physical pain is much less frequently a cause of suicide than moral suffering. Many, however, of the ancient stoics put an end to pain by terminating their lives. I have been told by several persons that, while suffering the pangs of neuralgia, it required the utmost efforts of their moral principles to restrain them from perpetrating self-murder. Numerous instances are on record of persons who, having believed themselves suffering incurable maladies, have had recourse to suicide as a more pleasant mode of dying, the act being committed under the impression that a natural death is more painful than that inflicted by themselves. But this is a mistake. Death from disease, even when the mental faculties are retained to nearly the last, is attended by a gradual abolition of the sensibility that is by no means painful or distressing; the patient ceasing to exist as hopefully and calmly as when falling asleep, unless under peculiar circumstances. Suicide is often committed in states of irritation and chagrin, particularly by persons of a morose, splenetic, or irritable temper. It is sometimes suggested to such persons by a desire to excite regrets

or self-reproach in the minds of those who have offended them by a feeling of revenge. Most of the suicides committed by children are caused by a desire of this kind, particularly when they follow punishment of any description. Suicide arising from jealousy also depends chiefly upon the promptings of this feeling in connection with anger, and is most apt to occur in hysterical, nervous, or weak-minded females.

Some years ago I was present at an evening party, where a young lady, engaged to a gentleman present, was seized with hysterical convulsions in consequence of his attentions to another. The following day she was taken out of a canal in her full dress, she having gone upwards of a mile in order to carry her design into execution. A lady on a similar occasion took a large quantity of laudanum. The usual means of restoration producing no effect, I was ultimately sent for. She was finally recovered by the effusion of cold water on her head. Domestic contrarieties and misery; the frequent recurrence of petty vexations; the tyranny of intimate connections, and the positive ill-usage of others; suits in courts (misnamed) of justice may from their continuance, severity, and repetition, especially under aggravating circumstances, and in states of high susceptibility in the unhappy sufferer, drive even the strong-minded and the well-principled into a state of temporary despair and desperation, — may fire the brain to madness, during which self-destruction may be attempted. A most talented and accomplished young lady, suffering from a combination of the above circumstances, took, upon retiring to rest, a very large quantity of laudanum, more than is usually productive of a fatal effect. She wakened late the following day with a most distracting headache and general disorder, recollected the act of the previous night, regretted the attempt, and sent for medical aid, determined, however, to conceal the cause. Her

health from this, and other circumstances alluded to, continued greatly impaired for many years, and several physicians were consulted. She came under my care, and at last mentioned the suicidal attempt, which was never further divulged. She now continues in good health, to ornament the society in which she moves. The state of desperation into which a person inflamed by the passion of love may be thrown by disappointment, is actually that of insanity, at least moral insanity. A gentleman endeavored to obtain the favorable notice of a lady, of whom he had become enamored, but had not succeeded. He committed suicide by opening a vein in his arm, and, while the blood was flowing, he wrote a note with it, acquainting her with his act. She was soon after attacked by nervous fever, which was followed by insanity, during which she fancied that she heard a voice commanding her to commit suicide. Instances of associated suicide are not rare, particularly in recent times.

A wide publicity was not long ago given to the mutual suicide of two young girls at Lewiston, Maine, by drowning. Not unfrequently one of the parties who have agreed to commit suicide, only pretends to do it, with the intention of getting rid of an object no longer one of endearment. Murder is often committed first, and suicide afterward, prompted by jealousy. Suicide is often feigned or simulated with a view of obtaining a desired end; the lover threatens or seems to attempt it, to induce a return of affection; the spoiled child, to obtain a compliance with his wishes; and the indulged wife, submission to her caprices. In such cases but a small portion of laudanum is usually procured, and this is diluted with some fluid, to increase the apparent quantity, or a large quantity is taken when seen by some person, or when instant relief may be obtained. Females have resorted to this plan to try the affection, or to compel the fulfilment of the engagement of their lovers; but in cases of this kind, little

more is necessary to be known than that such acts are sometimes resorted to; and that a poisonous dose may be actually taken, in order to appear the more in earnest, knowing that assistance is near, and that it will be successfully employed.

Drowning even may be feigned in similar circumstances. I have, however, seen two cases in which fatal results very nearly followed this experiment upon the endurance of affection. Circumstances predisposing to suicide are hereditary predisposition (Dr. Gall has observed the suicidal predisposition in several successive generations, I have known it in three generations); the melancholic, bilious, and irritable temperaments; the middle period of life; the unmarried state; masturbation and sexual excesses; drunkenness; immoral amusements and exhibitions; the perusal of loose productions and of criminal and suicidal details; idleness and indolence; habitual recourse to powerful mental excitement; states of the air or of the weather, occasioning depression of the nervous energy; disappointed love; jealousy; gambling; poverty; fanaticism; debt and domestic trouble; disgust of life; religious excitement; matrimonial strife; disease and pain; crime and remorse. It is well known that many philosophers and distinguished writers have attempted to defend suicide under certain circumstances, on the ground that he to whom life has become a misery and burden, has a right to rid himself of it.

A French writer on the subject of suicide, dogmatically announces that "Suicide is the last term, the highest expressions of man's liberty! Why have not animals ever conceived suicide?" he asks. "Because their nature is every way passive. They have not the choice and the preference. Man, on the contrary, eminently active and free, has been able to push his activity even to the destruction of himself." But this is an old idea of the Roman writer Pliny. "Indeed," says Pliny, "this constitutes the great comfort in this imper-

fect state of man, that even the Deity cannot do everything. For he cannot procure death for himself, even if he wished it, which, so numerous are the evils of life, has been granted to man as a chief good." Let us have a care. We have apologists for suicide even now, and upholders of it, and the prescriptions of both the law and the gospel in reference to it are in a great measure unheeded. This is not a bad starting-point and groundwork in favor of a reactionary movement, sympathetic of suicide; and if we do not take heed, we shall have our young men and maidens looking upon the deed as a matter of feeling, and not of morality, while sympathy for the self-destroyer would find an outlet in song. Would you have an example of the song?

"Then hie thee to the rope-yard, boy,
And purchase me a cord;
Ride slowly home and give it me,
But do not speak a word."

The frequency of suicides varies at different ages. During the early epochs of existence, the sanguine expectations, which are generally indulged, and which soon take the place of temporary despondency and distraction occasioned by disappointments and losses, tend to diminish the number of suicides.

In the middle and more advanced period of life, sensibility becomes exhausted or blunted, while cares and anxieties increase in number and intensity; and the attachment to life is much impaired. The desire of life afterward increases, and frequently in proportion as old age advances. It is from thirty-five to forty-five that the greatest number of suicides occur. After forty-five suicide becomes more and more rare; and above seventy there are scarcely any instances of it.

It is difficult to obtain the actual statistics of suicide in a given city or community, as many cases are undoubtedly reported under other heads, as "sudden," "apoplexy," etc.

In a work on Nervous Affections and Nervous Disorders, it was impossible to overlook the momentous subject of suicide, as nervous depression, and general or partial or momentary insanity, always precede the dread act of self-destruction. There is usually cerebral disorder connected with it. The increasing frequency of suicide, as well as of manifest insanity, forces it upon the attention of all practitioners who make nervous diseases a specialty and study. Of course, so far as suicide is a product of vicious states of society, it is beyond the power of the physician. But the nervous condition which leads to it is curable by the powerful remedial agents which have been added to the Materia Medica within the last decade, and which enable the skilful special practitioner to minister to a mind diseased, and restore the equilibrium of the most disordered and demoralized nervous system. In a young and hopeful community like our own, where "there is no shadow, no antiquity, no mystery, no picturesque and gloomy wrong, nor anything but a commonplace prosperity," suicide ought to be rare. But it unfortunately is not. Our people are beyond all others a nervous, and therefore, under the pressure of great mental excitement, a desperate people. Nowhere else is there such a desperate and reckless pursuit of gain. It is to the *nervousness* of our people that the frequency of suicide with us is to be attributed. Of the hopeless and appalling poverty which characterizes the dense communities of the Old World we know but little. But our morbid passion for excitement, our disposition to stake everything upon a single throw, the frequency of our contested elections, and the personal and exciting character of our political contests, all contribute to demoralize the nervous system, and overturn the equilibrium of the brain. Add to this the variety of foods, and the hurry of eating, which lead to dyspepsia, — a disease which at middle age causes low spirits, listlessness, and *tedium vitæ*,

or disgust of life, the very disposition of mind which leads directly to suicide. The suicidal propensity is almost always the result and accompaniment of nervous disorder and cerebral disease. If the medical adviser of one suicidally given has the medical means of dealing effectively and promptly with nervous disease in all its manifold gloomy and despairing forms, he can restore his patient to cheerfulness and health, and to that love of life which is so natural to the healthy man or woman in a normal condition. It is needless for the writer to say that in his markedly successful combats with nervous disease in all its forms and in thousands of patients he has utterly ignored the old-fashioned treatment, which consisted of local vascular depletion (bleeding), dry cupping, setons, blisters, repeated blood-lettings in the immediate vicinity of the brain, etc. He cures mental and nervous maladies by a different mothod, and by a remedy the result of a more advanced medical knowledge, than that which dictates such coarse and sanguinary attempts at healing a disordered mind and unstrung nerves. That his remedy while simple is sure, prompt, and decisive in its action, hosts of those who owe their restoration to health, business, and society will testify.

CHAPTER XII.

TREATMENT OF THE INSANE.

The most important question in psychological medicine and mental pathology, is concerning *the treatment of the insane.* Volumes have within a few years been written on this subject in all the languages of the civilized world, and the discussion still goes on. A writer on this subject says: "I doubt if ever the history of the world, or the experience of past ages, would show a larger amount of insanity than that of the present day. It seems, indeed, as if the world was moving at an advanced rate of speed proportioned to its approaching end; as though in this rapid race of time, increasing with each revolving century, a higher pressure is engendered in the minds of men, and with this there appears a tendency among all classes constantly to demand higher standards of intellectual attainment, a faster speed of intellectual travelling, greater forces, and larger *means than are consistent with reason and health.*" It is a matter of no slight difficulty to determine, in all cases, the primary or predisposing cause of mental disorders, apart from an hereditary taint existing in the constitution, and where there is no positive mental deficiency from birth; for it is only too probable that from a much earlier period than the actual manifestation of disease, *the fuel has been laid;* and it therefore becomes a matter of grave consideration for those who may have the

power vested in their hands, not so much for the cure, but, which is of far greater import, the prevention of disease, that many carry about with them unsuspected, perhaps, through a long life-time the seeds of insanity. There is a fearful balance of minds wholly free from inherited taint or constitutional infirmity, and yet doomed to break down in the terrible struggle of the age.

Insanity visits all classes of society alike, with an impartiality like that of death. The amplest means of earthly enjoyment will not purchase exemption from it. Indeed, it often happens that an hereditary mental taint descends as a curse with hereditary wealth and high social position. Failure of health, pecuniary embarrassments, over anxiety, too great application to business, etc., are among the ordinary recruiting sergeants, so to speak, of the ranks of mental darkness and imbecility. Causes of insanity are not far to seek among those, for instance, who earn their bread by the sweat of their brow; whose lives are a continual struggle, whose daily toils are unmitigated by pleasure, to whom each morrow brings fresh cares, and night scarce brings repose. The hard-worked professional man, who spends his days in painful efforts to make two ends meet; the avaricious man of commerce, only aiming to double his gains and grind fresh profits from his wares; the speculating capitalist, eager to lay out his treasure in the best market; the adventurous merchant, whose temple is the counting-house. What a restless sea! What troubled waves of thought and care rise up even within this single catalogue of callings! But look we further; observe the young of all classes, with what suicidal frenzy they commit themselves to sorrow. Whether in obedience to the promptings of high ambition, weaving an entanglement of thought, and straining the sinews of the mind in attempting to achieve the gain of riper years, and to wrest the victory ere the battle has begun; or else, led

spell-bound by passion, the powers and resources of youth are squandered in the bed of the voluptuary; sin sinking into the heart with all its accursed stains, polluting the fountains of reason at their source, and embittering the springs of life. Do we not find here predisposing causes with a vengeance, borne it may be long, but only waiting for the spark to fall?

The tendency of dissolute habits towards inducing aberration of mind need not be dwelt upon. If prolonged habits of dissipation frequently predispose towards insanity, fits of intemperance prove not seldom the immediate exciting cause. Intemperance is indeed a fertile source of insanity. The prevailing superstitions of the day — spirit-rapping, table-turning, etc. — exercise their baneful influence on susceptible minds. These are rocks in the fathomless sea of mysticism, on which many an empty head has split, and many a shallow mind been stranded.

But to our more immediate subject, *the treatment of the insane*. Among the multitudinous works and periodical essays on this momentous subject, with which the press has labored of late, the writer is happy to refer to an American book, with the significant title, "Behind the Bars," as containing, upon the whole, not only the latest but the best word upon the question under consideration. The author of this most searching and interesting exposition of the faults of the present system of treatment of the insane, apparently writes from his or her own experience as a patient. But the criticism of a vicious system is tinctured with no harshness for that reason. Indeed, I understand that this little book has already produced a decided amelioration and revolution in the mode of treatment in our own immediate asylums. I cannot do better than to make several extracts *in extenso* from this work. Says this writer: "If these nervous diseases must be treated by some systematic form, surely no suitable progress has yet been

made towards it, and no steps taken which are sufficient in conformity with *all* that it seems to require. Many afflicted with nervous diseases would shrink from the very name of an insane asylum, or any retreat with so professional and formidable a sound, yet who would gladly avail themselves of some sort of refuge, some temporary home (*which asylums are not*), where they might escape for a time the cares and toils of business, the excitements of society and pleasure, or the trials of domestic life.

In England, insanity is regarded in a very different light from the way it is looked upon in this country. There it is made to appear as a disgrace or stigma of society or families, and thought next to crime itself. There is an evidence of inborn ignorance of the subject out of which all should be educated. Here, we believe, there is no crime (happily for us) in misfortune, and it is only where it can be traced to absolute vicious courses that there can exist any disgrace. It is easy to understand how persons may shrink from the very suggestion of asylums, either for friends or kindred, for there is natural horror in removing a beloved friend or relative from the home, from family or society, from independent situations, free to act and do as they please, and subjecting them like children to the rule and government of strangers, and depriving them of nature's dearest boon — liberty." . . . "As regards the patient himself, except in extreme cases of violent mania, never ought the asylum to be experimented with." That is good, sound doctrine.

The writer proceeds: "There is nothing more sincerely to be desired than the establishment of some proper sort of home or retreat, or whatever it may be called, for the concern and care, if not for any deliberate course of treatment, of nervous diseases." (The writer seems not to have been aware of the existence of the Peabody Medical Institute, an

establishment, one of whose specialties is the treatment of nervous diseases, not by any crushing system of restraint and utter seclusion, but by methods and remedies, kindly, soothing, and efficient.) The Institute, indeed, is exactly the "place" which the writer of "Behind the Bars" desiderates, "where the patient might act himself, and without opposition to natural tastes or positive restraint; where he might be indirectly watched and cared for; where the development of the disease may go on, or where it may be gently checked by some suitable regimen."

Well may this writer say that "although much has been done of late years towards the amelioration of the treatment of the insane, yet it has not yet reached that perfection to which modern science, cultivation, and good sense should elevate it." This is too true in the case of the management of public asylums, which are the chief and great receptacles of the unhappy victims of nervous disease and insanity; but there are solitary practitioners here and there, as in the case of the managers of the Peabody Institute, who have summoned to the treatment of nervous derangement, of all degrees and names, all the resources of "modern science, cultivation, and good sense," with a grand result of cures, which show what can be done for the amelioration of the woes of humanity, when the ruts of vicious usage and routine are abandoned, and reason and common-sense are left free to act.

"That the plan adopted for years past in our insane asylums is wrong," says the writer from whom I am quoting, "cannot be doubted by any intelligent being who has seen the victims of such a system, and witnessed the very instruments of torture applied to the persons of the patients, brought to operate, as they are, upon the harmless and gentle, as well as the most violent." "Are the patients of the insane asylums treated kindly?" "The interest which sur-

rounds this question," says the writer of "Behind the Bars," "and the anxiety to learn something definite of a subject which the regulations of a system keep hid from their eyes, often lead persons to take long journeys to see some unknown patient released from an asylum, or are the impetus to some confidential correspondence, often full of anxious misgiving or bitter experiences." "That the upholders of a course of personal restraints do not mean to be cruel, and that they believe their way the best for the patient, may be charitably believed. . . . They believe in tying up the body, that they may disenthral the mind. Are they not slugs in an age of universal activity and progression, while they cling fast to the old theories, and refuse to adopt the new? Were the non-restraint system established throughout our asylums, we should behold those patients who are so fortunate as to obtain their release in a far different aspect. They would not still bear the marks about the world of the fetters they had worn. Young girls who had entered there at the age of development would not return changed in form, bent, shrunken, and sometimes crippled. It is fearful to witness the shapes of these young persons in asylums, who are subjected, if not daily, always nightly, to the rough strait-waistcoats, tightly pressed against the chest, so as to prevent all expansion, and giving to them the figures of very infirm old women, rather than the fulness and shapeliness of youth and health. . . . Why is it that the non-restraint system has not been adopted in our best asylums? Why is it that the experiment is not made of doing away with these implements of torture? The answer from medical science will be, that they are done away with; that the chains and irons and rings and fetters, belonging to past treatment of the insane, have disappeared.* But are not the strait-

* Ransack history: the insane anciently were objects of buffoonery, or burnt as being guilty of sorcery. Later, they were abandoned, and they

waistcoats, the bed-straps, the leathers, the buckles, the chairs, all in common use? Are not ladies fitted to these waistcoats month after month, as though it were a legitimate night-dress? Whoever has passed any time in the asylum will see plainly why these appliances are still kept up. *They save trouble.* They save the employment of more attendants, and they save trouble to those already employed. Thus, the physicians say, they save attendants. The attendant says, they save my time. How simple, upon looking at a prospective project of reform in asylum life, seems to be the alternative, — to do away with the troublesome accessories, conjured up by force, and to rely upon moral safeguards and persuasive strongholds, which come from and aim at the heart and human sympathy, which the patient though diseased is still supposed to possess, and be capable of awakening to and profiting by! No non-restraint system can be adopted without a vast change in the machinery of the old management, and by breaking down the tyranny, and substituting a species of imaginary absolute freedom." This writer gives a bad account of the attendants in our lunatic asylums, of the jeering and cruel manner in which they treat their unfortunate charges. Indeed, she defines a lunatic asylum to be a place where insanity is made, manufactories of madness rather than healers. "Take an instance," she says; "a young woman from one of our country towns appears on a certain day upon one of the best galleries. She is bright, intelligent, and active, suggesting always the idea to the mind of the beholder, that if educated she would have been rather an uncommon person. She is lively, brisk, amusing, busies herself at her needle or the care of her room, in which she is

perished for want of care in hideous prisons. The Turks still maltreat their insane. In 1790 a law was passed in France, providing for the confinement of furious lunatics, and mischievous and ferocious wild beasts, classing the insane with brutes.

scrupulously neat. She not only performs these acts for herself, but she visits the rooms of the other patients, and improvises little reforms to be made in their clothing, offering to mend or make garments for them, and 'fix them up' generally. Of course this sort of interference does not fall to her requirement in the asylum. She must not direct, but be directed. She is an intruder, agitating the patients with outside influences and the like. Moreover she is very lively, and talks a great deal, — so the attendants say; too much, say the physicians; and so she must be moved to a less quiet and comfortable gallery. They take her away. But where? To a wing of the building so different, that there is not even one patient with whom she can have a sympathetic look. They are idiotic, apathetic, cataleptic: all far, far wide of reason, incapable of talking, excepting babble, or even of apprehension. Let the reader imagine for himself, let his own opinion determine what the sanitary influence of society like this might have upon a person of lively mind, however disturbed, during the course of weeks and months. A year afterwards, the writer again had an opportunity of beholding this patient, for whom much interest had been felt. But what an object! What a contradiction of her former self was the unfortunate changed to! Her face looked as though stamped by imbecility. Her lips moved to utter only incoherent jargon. Her eyes, which had been bright and intelligently lighted, were like dead eyes, and she was in no respect unfit for the gallery to which they had confined her." . . . What a system that would be to practise, if, instead of this, patients were by some charm of cunning made to feel that they were roaming quite at large; that they were not in a place of detention; that they were free to go and come; and yet all the while, physicians and attendants, under these illusory devices, were having it all their own way, though imperceptibly to their patients!

"A system of this sort would be worth inventing, and would bring honor to the inventor, because depending upon moral and higher elements than anklets for the feet and straps for the discontented body. For it is certain, that just for the reason that these patients know that they are confined, know they cannot go home, know they may not see a friend or relative, it is that they are so miserable. . . . It is amazing how the sense of liberty and the right of volition can affect violent insane patients. Under bonds and restrictions they conjure up all sorts of desperate and terrible things which they would do were liberty allowed them. . . . But untie their hands, take them out, unbar the door, tell them they are free,— and what then? Are they very quick to cut off by violent acts the apprehension and enjoyment of this new-born blessing — liberty? Not one of them would do an act of harm to himself. . . . One patient who wore day and night the strait-waistcoat, was perpetually imploring that she might just be allowed (a delicate favor) to fling herself upon the railway track, and end all by the coming train. When she was permitted to go out unbound, her chief fear of the world outside seemed to be, the danger suggested by the sight of a locomotive." I would gladly quote more from this most interesting writer, because his or her statements are those of an *expert*, who has fortunately recovered the full sovereignty of reason, as the book from which I have been quoting amply testifies on every page. Such testimony is invaluable. I will boldly affirm that the test of the civilization of a given community is the degree of science, and even of charity, with which the insane are treated in that community. Notwithstanding that statistics show, during the last ten years, an increase in the number of the insane, still I affirm that in proportion as *true* civilization shall advance, insanity will diminish its ravages in society.

Our principal lunatic asylums are on too monstrous a scale, and there is such a host of patients in them as to render it impossible that each particular case can receive proper attention. Were the writer to establish a lunatic asylum strictly so called, he should by all means establish it in the country, because it is there only that the family life can be realized suitably for the insane, who need air and space to act without danger to any one, and especially to be removed from the circumstances which surrounded the onset of this disease. Such an establishment would be a therapeutical centre, which would have a farm as a subsidiary establishment. The rich would find diversion, and the poor work in the fields. The air of the fields, as says one of the princes of science, Humboldt, is the first and best therapeutical agent. The simple contact of man with nature, that influence of open air, — or in a more beautiful expression, of *free air*, — exert a soothing power. They soften *pain*, and they allay *the passions*, when the soul is agitated in its utmost depths. At Gheel, in the northeastern portion of Belgium, the insane are colonized. In this place is the church of St. Dympna, whose intercession in the Middle Ages was supposed to cure lunatics, who were brought hither in great numbers. The tabernacle containing the saint's bones stands on four stone pillars behind the altar, so as thus to form a passage about three feet in height, through which lunatics, brought here for cure, were accustomed to pass on their knees.

The insane colony of Gheel cannot be here described at length. Some idea of it can be obtained from the account of a visitor: "When perambulating the various hamlets visited," he writes, "often through pretty but devious pathways, we frequently noticed lunatics occupied as agricultural laborers in adjoining fields; whilst some were quietly walking to or from neighboring cottages, quite as tranquilly as ourselves. Being all acquainted with the inspecting phy-

sician, these parties saluted him respectfully, and often conversed with us familiarly; in short, they behaved like ordinary peasants, or any rational person. We saw others sitting at the cottage doors, and some looking out of windows; while several were amusing themselves with children of the family, in adjoining gardens or enclosures. In one of the public roads we met a maniac who lived in a cottage at some distance, then carrying an infant in his arms like any nurse. He seemed to take great care of his innocent charge; and the physician remarked that such an occupation constituted this lunatic's chief enjoyment. Afterwards we encountered another insane resident — a young man — amusing himself with three little children, romping with them, and at the same time taking care that they did no harm. In a solitary lane, we next came up with a patient, who was being conducted homeward to dinner by the juvenile daughter of his host, after laboring in an adjacent field. In various other instances, we observed insane persons sauntering about, and some also going towards or returning from neighboring farm-houses. In truth, had it not been for the vacant-looking countenances noticed in most cases, and occasionally that their legs were loosely tied together by leathern thongs, so as to prevent the wearers from running fast or going to any distance, I should scarcely have recognized many of the parties then enjoying themselves, while breathing the pure and open air of heaven, as real lunatics residing in the Gheelois commune. Within the houses and cottages we inspected, many insane residents were occupied as ordinary servants; some superintending cows, churning, laboring in the barn, cooking food, cleaning the house, rocking the cradle, and taking care of the cradle; in short, employed in much the same way as they might have been at home, or out at service. Various male patients, again, were laboring in the gardens or fields; others working in carpen-

ters' shops, also smithies, stable and farm yards; besides being engaged in such out-door employments as are common amongst any agricultural population; these occupations having this very great advantage for lunatics, that whilst undergoing physical exertion — often so beneficial for their mental malady — they, at the same time, are much in the open air, breathe a purer and more salubrious atmosphere than most inmates of wards, day-rooms, or frequently too confined workshops, can enjoy in northern asylums. In several houses, we also observed female lunatics comfortably sitting with their hostess at table, knitting, sewing, making clothes, and conversing as if equals, friends on a visit, or relatives. Such spectacles were truly pleasing; and when looking out of the cottage windows, near such parties, upon sometimes a pretty flower-garden, or towards open green fields, strangers could hence scarcely suppose, from outward appearances and surrounding circumstances, they were then visiting the chamber of an insane occupant, afflicted most likely with incurable mental alienation." What a contrast have we here to the hideous, strait-waistcoat, close-confinement, restrictive system of our great, crowded lunatic asylums!

CHAPTER XIII.

URINARY ANALYSIS, AS A DETECTIVE OF DISEASE.

As a means of facilitating diagnosis or discrimination of disease, I wish most strongly to inculcate the necessity of analyzing urine; and I feel satisfied from very extensive experience, that if this were more generally attended to, that diversity of opinion which now so unhappily prevails would no longer exist, nor should we be so frequently taunted by our patients with the reproach, "When doctors differ, who is to decide?" As I have already observed, the clammy tongue, dry skin, pain in the back, and failure of the strength may exist in so many different diseases, that we should be unable, relying on symptoms alone, to decide with any degree of certainty the real nature of disease. But an examination of the urine will often lead us to the true interpretation, and under all circumstances will facilitate our inquiries into the causes of morbid phenomena. For instance, a single property from which much may be determined, I need only mention that the specific gravity of the urine in health may be averaged at about one thousand and twenty, but if the urinometer should indicate a density of one thousand and fifty, the urinary pathologist would immediately infer the presence of a large quantity of sugar, and the existence of diabetes in an aggravated degree. He would still further confirm his notions upon this point, by setting a portion aside

under the proper circumstances, and inducing those fungoid vegetations, the appearance of which, under the microscope, is shown in the subjoined diagram, Figure 6. Thus we

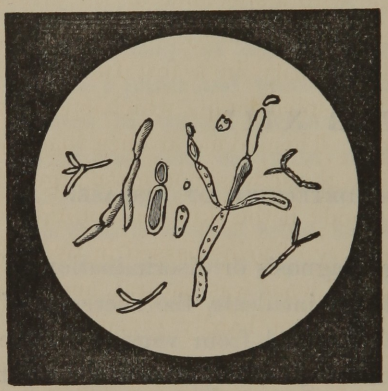

Figure 6.

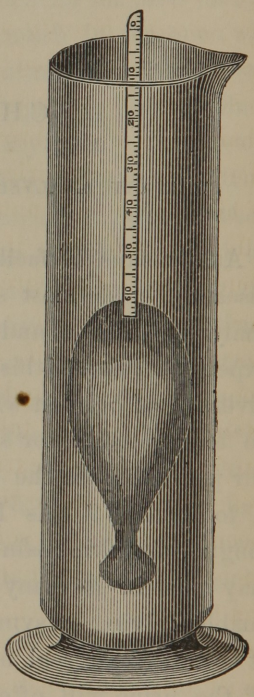

Figure 7.

should be enabled by one examination to decide the nature of the disease, without the possibility of mistake. For the purpose of speedily taking the specific gravity, we make use of a little instrument, contrived by the late and much to be lamented Dr. Prout, called "the urinometer." It consists of a hollow globe or glass, or thin metal, from the upper part of which projects a scale graduated from 0 to 60; in the opposite direction there is a weight to keep the stem upright. Immersed in the urine, it sinks and indicates the gravity of the urine by the figure on the stem, which coincides, or is on a level with the surface of the urine. Reference to Figure 7 will explain the use and nature of this instrument better than any description. The value of this instrument in detect-

ing disease will at once be apparent, by mentioning the following case.

A few days ago, a gentleman, a perfect stranger, whom I had never seen before, called upon me for my advice. I requested him to furnish me with a specimen of the urine, the *specific gravity* of which I immediately ascertained to be 1038. I boiled a small quantity in a test tube, with a solution of potass, over the spirit-lamp, which speedily changed to a dark-brown color. This led me at once to make the following inquiries: If the thirst was not most urgent; if his appetite was unusually good; if the skin was not unusually hard and dry; if the quantity of urine passed in twenty-four hours did not greatly exceed what was natural, and if he had not lost flesh. He had as yet hardly given me any account of himself, and appeared much surprised at my inquiries, and looked steadfastly at a microscope that was standing upon my table; and I afterwards learned that he attributed some extraordinary influence to the polished reflector attached to the instrument. It appeared that he had been suffering for some time from all the symptoms I had mentioned, and felt at a loss how I could, in so short a time, get to know so much about him, for I was not more than five minutes in making the examination. To the urinary pathologist this could occasion no surprise, if it would be at once apparent that I had tested for diabetes. Feeling satisfied of its presence, it was then of course easy enough to enumerate symptoms. I have found diabetes to occur between the ages of twenty-two and thirty-six. I have seldom met with it in advanced age; a form of it sometimes occurs in young children. It is of the utmost importance that this disease should be detected in its earliest stages, for it is only then that it can be kept in check, or possibly subdued. Instances, indeed, are not wanting of perfect cure. If food containing sugar or saccharine principles be allowed, even as luxuries,

it is the opinion of most urinary pathologists that no plan of treatment can prove serviceable. "Even its occasional infringement," says Dr. Prout, "cannot be indulged in with impunity. Thus I have known," he continues, "a few saccharine pears undo in a few hours all that I had been laboring for months to accomplish." With the view of still further impressing on the mind the necessity and importance of urinary analysis, I shall briefly mention another case of diabetes that came under my notice.

The patient, a cooper, had been working for six or seven years in a very damp cellar. He applied to me in 1866, complaining of intense thirst. He had become greatly emaciated, with a voracious appetite and other symptoms usually present in diabetes. Examination of the urine fully proved the existence of the disease. I explained to him the nature of his disorder, and the necessity of at once procuring a more suitable workshop, — one dry and properly ventilated. I also inculcated the necessity of strict attention to diet, and explained some other necessary precautions calculated to improve his health, and the necessity of strictly conforming to dietetic rules for some considerable time. I was, however, soon supplanted by a medical gentleman, who asserted that all the symptoms originated in a disordered state of the liver, at the same time undertaking to set all right in a month. To accomplish his purpose he directed blue-pills to be taken, which was continued for the space of ten days; but the unfortunate patient, instead of being perfectly well at the end of the month, as promised, had become worse, the symptoms much more severe, and he died a short time afterwards of confirmed diabetes. Few persons not accustomed to the treatment of these affections would believe the deleterious effects of even a dose or two of mercury. Indeed, the mildest form of the disease may be speedily converted, by the use of calomel or blue-pill, into the most

confirmed and aggravated diabetes. From several years' experience in the treatment of diabetes, I am decidedly of the opinion, that if early detected the disease may be removed; but generally cases of this kind seldom terminate so favorably as we could wish, or indeed as we have a right to expect, and I am satisfied this is owing to the disease not having been detected in its early stages. Most of the patients whom I have seen suffering from diabetes have been more or less of the phlegmatic temperament; not so, however, the class I am to enter upon. We often find the urine depositing certain sediments, the nature and variety of which are often intimately connected with both the temperament and the peculiar affection under which the patient may be laboring. Oxalate of lime, correct delineations of which I here subjoin (Fig. 8), most frequently occurs, according

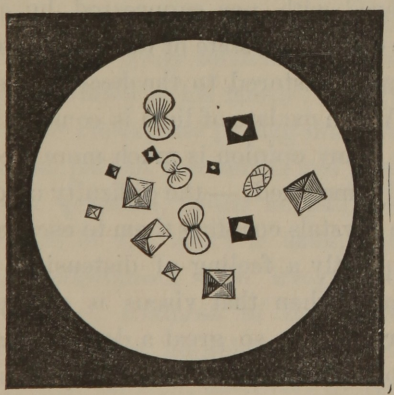

Figure 8.

to my experience, in the nervous and biliary temperaments, and not unfrequently in the sanguine. When it occurs in this last, it is often associated with an eruption of the skin, and attended with great mental and bodily irritation.

Not long since, I was consulted by a gentleman laboring

under this diathesis, oxalate of lime constantly appearing in the urine. This patient was treated simply for a cutaneous disorder, an eruption having appeared upon the skin. Astringents in the form of ointments, applied to the surface, succeeded in suppressing the cutaneous disorder; but the nervous excitement and mental distress increased to an alarming extent. So severe were the symptoms, that the patient found it quite impossible to remain at rest, but felt obliged, as it were, to shift about from place to place. He assured me he had suffered so much, that he often felt as if he should lose his senses, were not the symptoms soon relieved. Sulphur baths with diaphoretics, and irritating frictions to the skin, soon brought out the eruptions again, with immediate relief to the patient. I have found almost invariably that affections of the skin, when accompanied with an unnatural or disordered state of the urine, must not be rashly interfered with, nor suppressed by external applications, till the disordered state of the urine has been corrected, and the kidneys restored to the healthy discharge of their functions. When oxalate of lime is constantly present in the urine, which in my opinion is much more frequently the case than is usually imagined, — the difficulty of detecting the nature of these crystals enabling them to escape observation, — there is frequently a feeling of distension in the stomach, more especially when that viscus is empty. This feeling frequently prevails to so great a degree, that the patient is compelled to have his dress made very loose, and to adopt every means of preventing pressure. This distension sometimes extends over the whole region of the stomach, which bulges out, occasioning great irritation and distress.

The heart, or at least its motions, frequently become involved. I have seem many instances of what may be named *nervous palpitation of the heart.* Patients, from such palpitations, often imagine themselves the victims of real disease of

the heart; and this notion appears to be more strongly confirmed by the irregularity of pulse which prevails in these circumstances, and indeed not unfrequently it intermits. A medical gentleman consulted me some little time since for a feeling of severe nervous depression, greatly aggravated by a firm belief that he should die suddenly from an affection of the heart. About two years before he consulted me, he had endeavored to effect an insurance upon his life, which was refused, however, under the impression of his suffering from disease of the heart. Certainly palpitation was evident, and there was irregularity of pulse, great difficulty in breathing, with habitual coldness of the feet. On examining the urine I found it loaded with octohedral crystals of oxalate of lime, and remarkably so after dinner; which, perhaps, might be attributed to an habitual indulgence in sweets, etc., at this meal. The digestive functions were deeply involved, and yet *the tongue was perfectly clean*. The general circumstances induced me to suspect a gouty tendency, and, on inquiry, I learned that gout prevailed in his family. By regulating the treatment upon these views, and paying due attention to the digestive organs, the patient recovered, and is now attending to a very extensive practice, which he had been forced to relinquish. Disease of the heart is usually inferred when there is habitual palpitation, with irregularity of pulse, difficulty of breathing, coldness of the extremities, and the pulsations of the heart audible over the whole extent of the chest. It will be well, however, to remember that all these symptoms may be present, and yet the heart itself be perfectly free from disease. I feel reluctant to refer to the numerous instances I have seen of persons whose existence has been embittered, and their prospects blighted, in consequence of functional irregularity being mistaken for organic disease of the heart. I have already mentioned a case of gout lurking in the system giving rise

to all the phenomena of diseased heart, and shall conclude the subject by calling the attention of the profession to one other remarkable instance.

A young gentleman, who consulted me, gave me the following preliminary history of himself: "I enjoyed," he said, "excellent health until I went to Harvard University; there I studied very hard. A friend gave an entertainment in celebration of my success in gaining a prize for a literary essay. After the entertainment we went upon a rowing excursion, and I exerted myself beyond what was usual. On our return I became giddy, and at length fainted. I soon, however, recovered my recollection, but became ill, and was confined to bed six weeks. My digestion at this period was much disordered, the pulse irregular, with a constant feeling of uneasiness about the heart. I was advised to return home; to avoid all kinds of mental exertion or excitement, and all sorts of active exercise, especially upon ascents; and to restrict myself to a very low and poor diet. I took foxglove for a considerable time, in order, as it was stated, to lower the heart's action. My health was not sufficiently restored to admit of my return to Cambridge the following term. I remained at home for twelve months; and not being allowed to read, nor to take much exercise, time hung heavily upon my hands, and at the end of that time the symptoms were as severe as at first. I was compelled to give up my studies, and have remained quite an idle man ever since. I have taken a great deal of medicine, of one kind and another, and I now begin quite to despair of recovering my health."

Upon analyzing this patient's urine, I found the oxalate of lime in great abundance. The powers of the digestive organs were greatly impaired, which I attributed principally to the kind of diet to which he had been restricted, he having lived mostly upon slops and vegeta-

bles, fearing that otherwise he would make too much blood, and disturb the action of the heart. After hearing the history of the case, and giving due attention to all the circumstances, I came to the conclusion that the patient had greatly impaired his health by too close application to study. After severe literary exertion, the indulgence in the pleasures of the table, followed by the laborious exercise of rowing, acted as the exciting cause; and in his excitable, but still enervated condition, proved quite sufficient to bring on fainting, and the disordered state of frame which succeeded; that the bleedings to which he had been subjected, and the digitalis only served to keep up a degree of irritation in the system; and on his return home, being debarred from bodily exercise, and deprived of all mental occupation, he had too much time to think upon his disease and to dwell upon melancholy forebodings, which at length brought on a permanent state of irritation in the system Acting upon these views, I recommended that he should resume his studies, of course under due restrictions as to intensity of application; that he should take horse exercise and adopt a more liberal and generous scale of diet. I also recommended means for restoring the vigor of the digestive organs; and advised him, during his stay in Boston, to divert his mind by visiting the different places of amusement and objects of curiosity. His health and spirits were greatly improved; but still I fear that the impression that his heart is seriously diseased, will not be easily eradicated from his mind, notwithstanding that he has been assured by the most eminent of the profession hereabouts, that no such diseased state exists.

In the treatment of the oxalate of lime diathesis, great care must be taken to order that kind of food which can be easily reduced by the stomach; therefore, oily substances, as butter, cream, fat meats, should be wholly interdicted. Great attention should also be paid to the nature and kind of fluids used

as drink; and water impregnated with carbonate of lime should be carefully avoided. It is generally admitted that the appearance of oxalate of lime, as a deposit in the urine, is closely connected with the condition of the digestive organs; as it readily disappears and reappears under certain alterations in the diet. The dyspeptic symptoms under these circumstances are often referred to acidity of the stomach as their cause. While upon this subject, therefore, I would strongly impress upon the mind of the practitioner the necessity of well weighing all the circumstances of the case before he recommends that incessant resort to carbonate of soda, so much in vogue. Acidity of stomach is now denounced as one of the most common and constant accompaniments of nervous disorder; and carbonate of soda and liquor potassæ, among the most favorite remedies. Many cases of nervous disorder have fallen under my care, to remove which was a work not only of time, but of extreme difficulty, in consequence of the injurious effects of an immoderate and daily use of alkalies.

A gentleman of nervous temperament, engaged in a New York warehouse, a tall, powerful man, applied to me in consequence of suffering from pain in the region of the stomach. The pain was confined to a spot which he could cover with the tip of his finger. He suffered invariably after dinner from a painful feeling of distension and fulness, with an almost incessant desire of hawking up phlegm, which seemed as if agglutinated in the throat, causing great irritation, with an uncontrollable desire of getting rid of it. The skin was dry, hard, and harsh. There were severe periodical pains in the head, and, in fact, all the general symptoms characteristic of confirmed dyspepsia. He informed me that having suffered for a considerable time, he had, upon advice, been in the habit, for the last six years, of mixing a quantity of carbonate of soda with the ale which he

used. He commenced with what he called "a small pinch, or as much as would lie on a shilling." This quantity was gradually increased, till it amounted to a teaspoonful. The soda generally relieved his distress, in some degree, for an hour or two, when the uneasiness returned, and recourse to the soda again became necessary.

The urine passed in my presence had a specific gravity of one thousand and twenty-two, with a very faint acidulous reaction; deposited a sediment consisting of mucous and epithelium, and abounding in crystals of oxalate of lime. After standing at rest for above twenty hours, the surface became covered with a pellicle, which proved to be the triple phosphate, and the sediment was found intermixed with the same. The reaction was now alkaline. From the history and general circumstances of the case, I felt firmly convinced that the greater part, if not the whole, of the misery and distress endured by this patient, was caused by the inordinate daily quantity of carbonate of soda which he daily took. I therefore recommended the gradual discontinuance of the medicine, substituting for it, first, the hydrochloric acid, and afterwards the nitro-muriatic, beginning with very small doses, which were afterwards gradually increased. Frequent recourse was had to the warm bath; while a plain, simple, but nutritious diet was adopted. This plan he continued for some time and with great benefit, as he became very much better; but still he was far from being relieved. He became, however, rather impatient of restraint and rule, and gave way to a longing after his favorite dose of soda-water; and as I would not sanction this, he got tired, and consulted another physician. I have heard from a friend of his who is a patient of mine, that he is constantly changing his medical attendant, and that he is at present in very bad health. When patients, under false notions, habituate themselves to the daily use of soda,

they may be placed in the same category with the habitual opium-eater or the dram-drinker. Such endure the greatest misery, till they indulge in the accustomed dose; and few there are who possess firmness enough to resist the temptation, or fortitude enough to abandon its use. And here again I must beg not to be misunderstood. I by no means urge that the alkalies are always injurious in nervous affections; on the contrary, I have met with a great number of patients who have derived very great benefit from a judicious and well-regulated course of these remedies, as will be seen in the following example: —

A gentleman of the nervo-bilious temperament, connected extensively with the public press, applied to me, complaining of many of the symptoms just enumerated. In this case the pain in the region of the stomach was by far more severe than in any instance I remember to have previously met with; which may, perhaps, be explained by the great nervous excitement and mental anxiety to which he was almost constantly exposed, in consequence of the great responsibility imposed on him by his connection with an influential daily journal. Great irregularity of habit was a necessary result; dining very irregularly, and at all hours. He sat up, too, almost all night, resorting to stimulants to keep awake and active. Indulgence of this kind generally ended in great depression and nervous exhaustion, which commonly lasted till recourse to the usual beverage aroused the energies and raised the spirits. I was called upon very suddenly by one of his friends to visit this gentleman, whom I found suffering from a very severe attack of nervous fever. It appeared that upon a recent occasion he had been confined for several hours, in a close and overheated apartment, being at the same time exposed to intense mental anxiety; he very incautiously and most injudiciously exposed himself under these circumstances, unsuitably clad, to the open air, on a

raw, cold, damp morning in the month of November. The attack of nervous fever above mentioned was the consequence. In this case, the perspiration and other secretions, generally, indicated a great tendency to excessive acidity, which justified a resort to a judicious and well-regulated use of the alkalies; and, indeed, I feel that the patient is mainly indebted to their influence for his recovery. But even at the present moment, when he is in the enjoyment of his usual good health, he is obliged to avoid green vegetables, oranges, light acescent wines, sugar, and other fermentable articles, experience having taught him that, in his case, acidity may be speedily and very easily induced by the slightest deviation from rule; and this acidity, when brought on, is always attended with severe pain in the stomach, intense headache, and nervous trepidation, — effects which speedily supervene, but which require considerable time to subside.

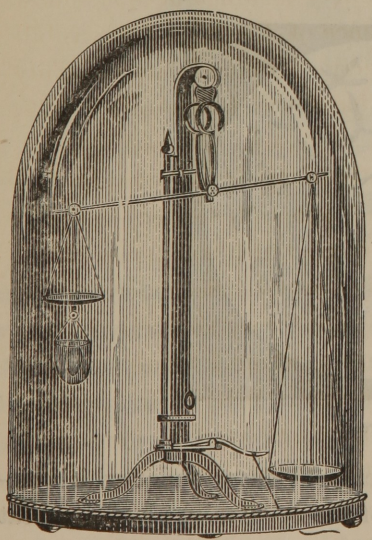

Figure 9.

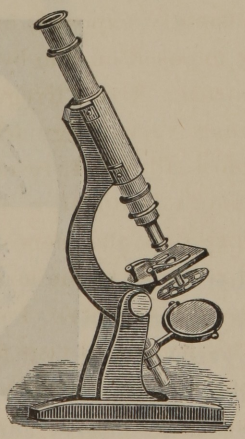

Figure 10.

CHAPTER XIV.

VARIOUS URINARY DEPOSITS.

Nervous patients, with the oxalate of lime diathesis, I find derive very great benefit from the exhibition of nitro-muriatic acid with tincture of cinchona. It is, however, necessary to caution against the too long-continued use of the acids. Oxalate of lime is found in urine depositing urate of ammonia, a diagram of which (Fig. 11) is subjoined,

Figure 11.

and even uric acid in the crystallized form, under which circumstances an incautious use of the acids might lead to great inconvenience. In regulating the treatment, therefore, when oxalate of lime appears in the urine, it ought to be analyzed

every third day, and immediately when either urate of ammonia, or crystallized uric acid appears, the use of acids should be suspended. Sulphate of quinine, oxide of silver, or tris-nitrate of bismuth, may be given with great advantage, till the time arrives when we may resume the acids. I have, at this moment, a patient under my care who has suffered for many years from this diathesis, and whose health has been much injured by an empirical resort to alkalies, but who is now deriving very great benefit from the cautious administration of nitro-muriatic acid and cold baths.

Urea — a diagram of which (Fig. 12), crystallized from its solution in spirit, is here subjoined — is a urinary principle,

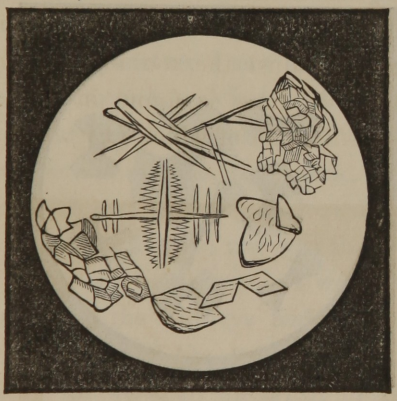

Figure 12.

excess or deficiency of which in the urine is often connected with important nervous disorders. When urea is in excess, it often causes a great deal of irritation; there is a dull, heavy, dragging pain in the lower part of the back, which is much increased by exertion. A very constant symptom, more especially in certain forms of excess of urea, is a frequent voiding of the urine. There is often a greater quantity voided than is consistent with health; but from the frequent calls, the quantity passed seems to the patient greatly to

exceed what is natural. Hence this affection is, and has often been, confounded with diabetes, a disease of a very different nature.

In speaking of the treatment of this affection, Dr. Prout very justly observes, and in practice I find his views confirmed, "That calomel, black doses, and saline purgatives are calculated to do infinite mischief, and will probably render a manageable disease perfectly unmanageable," — hence the necessity of at once ascertaining the true nature of the disorder.

A patient lately consulted me, whose urine had for some time contained an excess of urea. He had been taking cal-

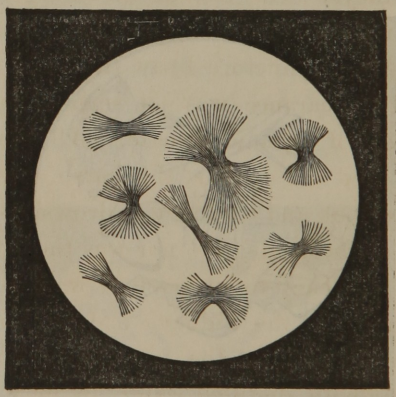

Figure 13.

omel, which, however, had not relieved him, and he was recommended the daily use of fluid magnesia.

Upon examining the urine under the microscope, I discovered crystals in beautiful tufts, which were at once copied by the artist, and the delineations (Fig. 13) are here subjoined. Upon further inquiry, I found them to consist of *urate of magnesia*. This patient was much relieved by discontinuing the medicine, — paying strict attention to diet, and taking small doses of oxide of silver.

In certain forms of degeneration of the kidney — granular, for instance — the serum of the blood passes off by the kidneys. Such urine is albuminous, coagulating by heat, more especially if a few drops of nitric acid be added. When albuminous urine depends upon granular kidney, it may be regarded as a fatal symptom. We must, however, be cautious in pronouncing such an unfavorable opinion. Not very long since I was called upon to visit a gentleman who was studying for the bar. For some time he had been suffering from severe nervous, aching pain in the back and loins. A medical gentleman, a friend of his, having discovered albumen in the urine, pronounced him suffering from organic disease of the kidneys. His friends became greatly alarmed, especially when informed that nothing could be done to save the patient. At this juncture I saw the case.

The general appearance was not such as to excite in my mind the notion of organic disease. All those symptoms, — the swollen face and eyelids, the harsh, dry state of skin, the dull, stupid look and tendency to drowsiness, — were not present in the slightest degree, nor was there the least indication of any tendency to dropsy. I was, in consequence, induced to doubt that the kidneys had anything to do with the diseased condition of the urine. I therefore washed out the bladder with distilled water, by means of a double catheter; and then made him drink, in my presence, two or three tumblers of filtered water. He was placed, on his bare feet, upon a cold marble slab, and in less than ten minutes passed a considerable quantity of urine, which, on examination, afforded not a trace of albumen. This sufficiently proved that the kidneys were not the source of the albumen. Upon stricter inquiry it was found that the albumen was derived from the mucous coat of the bladder. It disappeared very shortly under the influence of the tincture of sesquichloride of iron, in doses of twenty drops three times a day.

I mention this case to show the necessity of caution, and the inconvenience which may result from inferring degeneration of the kidneys merely because of a little albumen in the urine.

Lithic or uric acid, of which there is a diagram (Fig. 14) attached, is likewise a principle by which the urine is destined to carry out certain effete matters from the system. It however sometimes happens that more lithic acid is formed than is evacuated with the urine. The superabundance

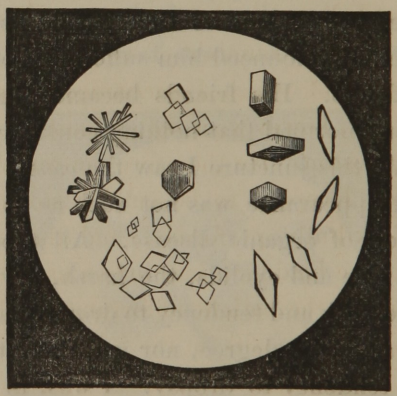

Figure 14.

either is retained in the kidney, giving rise to the formation of renal calculi, or it remains in the blood, and occasions various forms of nervous disorder. It is well known that in rheumatism the blood comparatively abounds in lithic acid. Occasionally this acid, after remaining for some time in the kidney, passes into and remains in the bladder, forming a nucleus for further deposition, and vesical calculus is the result.

One of my patients requested my attention to a poor man, a shoemaker, who had been suffering for thirteen years from a nervous affection, which latterly had increased so much, and occasioned so great a degree of distress, that he could

hardly attend to his work. He had tried a variety of remedies, and consulted numerous practitioners, and various views were taken of the nature of the case.

Having obtained several specimens of the urine, I found, upon examination, that it abounded in lithic acid, which was deposited in the crystalline form. The appearance of the acid, with the general circumstances of the case, induced me to suspect the existence of stone in the bladder, as the cause of the nervous symptoms from which he suffered. He came to Boston, and, on sounding, the existence of calculus was clearly and decidedly proved.

There were a great number of very small calculi of the lithic kind, many of which I succeeded in crushing. He became impatient, however, it being inconvenient to him to be so much in Boston. He therefore determined upon going into the Boston Hospital to be cut for stone. The operation was very skilfully performed, and the stones adroitly extracted from the bladder; but inflammation set in on the third day, of which the patient unfortunately died.

When lithic acid deposits in the joints in the form named "chalk stones," there is much nervous irritation set up in the system; and patients of this class suffer so much from nervous derangement, that the most trifling incidents will throw them into a nervous paroxysm. These gouty concretions do not consist of chalk, but of urate of soda; and the diagram (Fig. 15) shows the form of crystallization assumed by the uric acid when liberated from its combination with the soda.

When the lithic acid diathesis prevails, the digestive functions are usually much out of order, and the patient complains of flatulence and great acidity of stomach, much increased by acescent fruits and vegetables, and indulgence in port wine.

It is of the utmost importance that such derangements of the system should be speedily recognized. A few grains of

carbonate of potass taken three or four hours after dinner, and persevered in for a short time, will remove a great deal

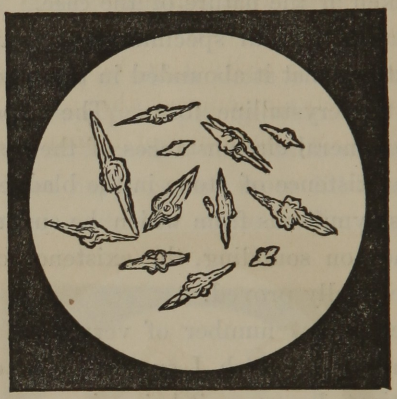

Figure 15.

of mischief, and prevent the formation of stone in the bladder, which cost the patient, whose case I have just mentioned, his life.

Cystine, or Cystic oxide (see diagram, Fig. 16), is very

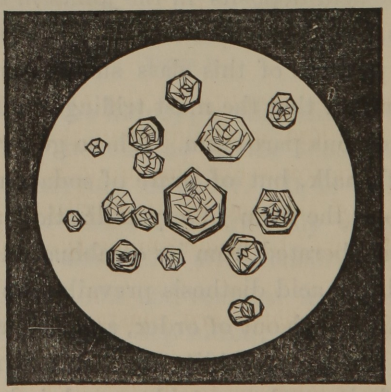

Figure 16.

rare, but when it occurs is attended with severe nervous derangement. It was first described by Dr. Wollaston, and

afterwards by Marcet; and a very excellent account of the substance itself, and of the state of the urine in which cystine prevails, was published by my friend, Dr. Venables, some years ago, in the "American Journal of Medicine." Little or nothing has been added to Dr. Venables' excellent detail.

Liebig has lately announced the existence of hippuric acid (Fig. 17), as a constituent of human urine. It is occa-

Figure 17.

sionally present in quantity in the urine of hysterical and nervous females, and in the urine of persons who have been compelled to live for some time upon a poor, low, and bad diet. Change of air, and good nutritious food, with tranquillity of mind, will be found among the most effectual remedies.

The earthy phosphates are constantly deposited from the urine of nervous patients, and many of the symptoms in such cases, are analogous to those which occur in the lithic acid diathesis. The triple or ammonio-magnesian phosphate is delineated in Fig. 18.

The deposition of the prismatic phosphate is generally

accompanied with severe pain in the back, much increased by any kind of exertion, especially if the lumbar and dorsal muscles are much or actively employed.

We frequently find cutaneous eruptions upon different parts of the body associated, or in some way connected, with the deposition of the triple salt. "That tendency to a deposition of these earthy salts in the urine," says Dr. Prout, "is sometimes hereditary, there can be no doubt. Moreover, this tendency often assumes different forms in dif-

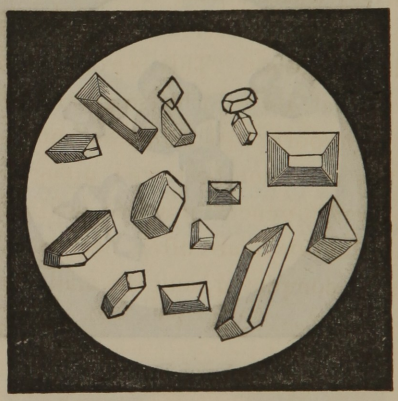

Figure 18.

ferent members of the same family, and even in the same individual at different periods of his life. Thus, when one individual of a family has suffered from a deposition of the phosphates, another has suffered from gout, a second from asthma, a third from cutaneous disease.

I have for some time attended a gentleman who has been suffering for many years from spasmodic asthma. The urine deposits the phosphates in great abundance. I have also attended the brother of this gentleman, likewise his nephew, and three of his children, all suffering from what they name nervousness, which it is said runs in the family. No two,

however, suffer alike. The gentleman told me that he thought he should have lost his life in consequence of having gone, on the recommendation of a physician, to a watering-place, and drank largely of an alkaline spring. He was reduced to such a degree, and his health so very much shattered, that many months elapsed before it was restored to its ordinary state. One can hardly reconcile the probability of such an error, had there been even but an imperfect analysis of the urine.

There is scarcely a day passes that I have not applications from members of the profession requesting me to examine the urine of their patients. This is very often accompanied with another, — that I would be so good as to forward, by return of post, a report, with a full account of the analysis. Perhaps the little attention bestowed upon inquiries of this sort, by gentlemen in general practice, will account for their not being aware that days are often necessary before the investigation can be completed, and the analysis perfected.

CHAPTER XV.

PATHOLOGY OF THE NERVES AND NERVOUS MALADIES.

The dominion of the nerves over the mental and physical actions of man is unbounded. The various workings of intellect, sensation, volition, motion, secretion, nutrition, — the essence of all these is nervous influence. There is no animal without nerves, but myriads without circulation of the blood. Blood and nerve are, however, about equally implicated in the phenomena of health and disease. When the nerves are powerfully affected, how quickly the heart is affected also! Alarm and terror are mental impressions; but how instantaneously the heart is affected by undue enervation is evidenced by palpitation, increase or arrest of circulation, by blush or pallor. The phenomena of mental disorders, or of a class of them, at least, are dependent on an abnormal supply of carbonized or oxygenized blood on the brain, or a deficiency of phosphorus. Excess of arterial or venous blood will equally induce a train of morbid phenomena in the nerve, as in any other organic tissues of the body. There is indeed a marvellous connection between the nervous and vascular systems throughout the animal frame. Too great action in the minute arteries, congestion in the veins, an anæmious or bloodless state of the vascular system of the brain, alike induce morbidly exalted and impaired conditions of the mental and cerebral functions; spectres,

delirium, insomnia or sleeplessness, amaurosis, stupor, coma; violent involuntary actions, or paralysis of the voluntary motions, etc. The higher the nervous energy, or the more vigorous the circulation of the blood, the greater the power of the vital tissues to resist contagious diseases. Hope will preserve the energy of the body under the most depressing influences, the most laborious exertions. The body cannot have rest or health till the mind be satisfied. The nerves are valuable servants, but they are despotic masters. Let them once get the whip-hand, and woe betide their slave. Now, have *we* not an apology to make to *them?* We either coax and pet and indulge them as we do spoiled children, or work them to the utmost; and then we wonder that their evil qualities turn the tables on ourselves, and render us slaves to the tempter. Let us take a brief glance at those excited conditions of the mind which are so often the spring of nervous maladies, real and imaginary. It is true we cannot always

> "Minister to a mind diseased,
> Pluck from the memory a rooted sorrow;"

but, by a little self-denial, *a sound mind* (mens sana), to a degree at least, may be preserved to us. If, in the effort, even self-interest or self-gratification be sacrificed, the transient tears of regret will, we may hope, be consecrated, and turned to those of joy and thankfulness, when the struggle is over.

Intense impression on the mind is a subject full of interest. The illusions so often induced by it are contrasted in their influence over the system. They may be consolatory, an agreeable and happy deception, and should in some cases be even encouraged. We will glance at a story told by Kotzebue, the poet, in illustration. It was of a young lady whose lover died. His harp, on which he was wont to

accompany her, hung in her chamber. After a period of melancholy and grief, she touched the cords of her instrument; the harp, *tuned in accordance*, responded. Surprise and terror were at first the consequences; but these now yielded to a romantic melancholy, with a conviction that the spirit of her lover swept the strings of the harp. Her music became her only consolation, until a scientific friend explained to her the principle of phonic harmonies. From that moment the illusion vanished, and she drooped and died. But if the impression be *foreboding* of misfortune, of course it should be removed if possible. We could cite many cases of those unhappy prognostics from dreams, and the prophecy or dread of the fortune-teller, regarding the termination of operations or of childbirth. Anxiety is prospective sorrow, — its subjects various. In that which may be termed moral anxiety, as that of a wife or a mother for the safety of her husband and her child, there is a sacredness which excites our deepest sympathy. Others have a more unholy spring; a heart tainted with pride or avarice, those besetting sins which so deform human nature, and to the pains of which there is no end, — for pride and avarice are never satisfied, — there is no real meaning but a negative one in the word *enough*. These passions are the very bane of existence. Yet how many, even of those who decry them, cherish the serpents in their bosom, trusting to honor or riches for sublunary happiness, forgetting the monitory lines of Young, —

> "Why all this toil for triumphs of an hour?
> What though we wade in wealth or soar in fame?
> Earth's highest station ends in 'Here he lies';
> And dust to dust concludes her noblest song."

The feeling of anxiety is one continued heart-ache; it is the dread of something worse than the present. It is pro-

gressive in its degree, and therefore more poignant than real sorrow or grief, which is the pain of memory, and which so constantly, from the mere elasticity of the mind, gradually fades and disappears. For the anxious heart there is often no relief, save from the eloquent lips of sympathetic friendship, or the consolation of religion. If it be not relieved, low nervous fever will be the consequence, with remora of the circulation, inducing local congestions; then, not only are the secretions diminished, but those which are formed are depraved and unhealthy. For so surely as the enlivening passions oxygenize the blood, do the depressing emotions accumulate carbon. By this poison a constant morbid and ineffective reaction is going on, which wofully aggravates the original affection. Thus is established a train of nervous maladies, — neuralgia, hypochondriasis, melancholy, — inducing that corroding action in the brain, which, in the words of the son of Sirarh, "consumeth marrow and bone." In the end, if the brain be long oppressed by its poison-blood, *tædium vitæ*, or weariness of life, must be the result, the climax of which may be suicide. During this progress the system is in a state of universal malady, — all is going wrong. Circulation, digestion, assimilation, nutrition, the nurses of life, fail; absorption of fat succeeds, and atrophy is the result. In the anxious mother, the secretion of the milk is checked or depraved, by which half-poisonous fluid the numerous convulsive and gastric diseases of infancy are brought on.

The influence of anxiety also constantly lights up those latent germs of constitutional disease, which might never otherwise have been developed. The miliary tubercle of phthisis is thus excited to action, and youth and beauty, till then in seemingly blooming health, are at once doomed to decay and perish.

But the great source of anxiety and its train of ills is to

be sought in those ardent longings for worldly possessions, which are the especial debasement of this age. But even the fullest measure of success in the insane struggle for opulence soon palls on the sense. When all earthly grandeur and power are at length attained, the proud and anxious possessor stalks through his gorgeously furnished halls, counts over his millions, and wonders and deplores (that is, if he *can* moralize) that his heart is not sufficiently capacious to enjoy all the splendor, and opportunities of gratification, which it commands. We cannot

> "Through the loop-hole of retreat
> Look out upon the world,"

agitated as it is at this moment with the intense desire of gain, with the eager haste to be rich, without a thrill of pity and sympathy for the blind votaries of Mammon, who daily and hourly prostrate themselves before the golden image they have themselves set up! Tranquillity of mind! It were a miracle indeed if such a condition of brain could be preserved amid the tumult of a stock and share market and gold-board, in the face of desperate ventures, in which millions may be involved, and families reduced to irretrievable ruin, in the twinkling of an eye, as it were. And it were a vain effort to check the headlong course of one on whom the monomania of gaming has taken so deep a hold. Yet while Mammon thus reigns in every alley, the health of the body is sapped, the intellect is impaired and perverted, the condition of its organ gradually destroyed, the earthly climax of which may be drivelling or raving insanity, or death, self-inflicted from the muzzle of the revolver in the grasp of desperation. On the slaves of pleasure, anxiety is ever an attendant demon. True, the orgies of Bacchus and Venus, during their intense excitement, drown the heart and mind in one voluptuous flood, while the cup of Nepenthe or the lips

and arms of beauty throw their spell over the senses; but the deep anxiety of after-thought and feeling can never be compensated by a thousand-fold of such enjoyment. And is the penalty merely transient? Alas, it lasts a life-time! It is deeply painful to reflect on the prolific springs of disorder from these slavish passions; the *brain* and *heart* are the especial organs into which their poison is infused. Either the intellect or the senses are reduced to a brutal apathy, or the sensitiveness (hyperæsthesia) of the nervous system is so morbidly increased, that, on the slightest disappointment, or social competition even, the whole system is deranged, and there is no philosophy, no piety, to tranquillize a mind so subdued, for irreligion must be the predominant principle of such a life.

Grief and its prototypes is another fertile source of deep or protracted nervous maladies. The intense degree of grief is all-absorbing. The mind broods over the one subject of its woe, and so reluctant is it to admit another, that it is often annoyed by conversation of friends, or even impression on the senses. Hence, the deep mourner retires into lonely seclusion, and soon may be lighted a train of feelings as distressing as they are obnoxious to remedy — melancholy.

When this sad condition is the result of *bodily* causes, we can cure it; but when it springs from moral causes, time, of course, is an element in the cure. But the *maladie imaginaire* is mostly the result of mere corporal derangement and break-down. We will conclude our remarks on the pathology of nervous maladies by glancing at the hygiene best adapted to remedy them. (As for their medical treatment, we can best administer that directly and personally, rather than through the medium of a work on Nervous Affections. As has already been said, the resources of the Materia Medica for nervous maladies has been powerfully reinforced within the last ten years, by an entirely new class of reme-

dies, based on our greater knowledge of the nervous system and its action. The writer himself has introduced a new and most potent remedy.)

If we believe in the irritation or disturbance of mind as a fertile source of the neuroses, or nervous affections, we may also believe that the inducing a different state of mind will prove a curative or preventive oftentimes, — at any rate, a great help to a cure. This state of mind would be the opposite of pride, envy, hatred, and sordid greed of gain, which passions, as a great moralist remarks, have no holidays, — that which we term repose, — contentment, tranquillity, *happiness*. By mental repose we do not mean the apathetic state of the thoughtless or the slothful; the *dolce far niente* of the useless do-nothing, is the mere scum on the surface of the cup of idleness which contains a poisonous bitter in its dregs. Under the placid condition of mind, not only is the *vis medicatrix* allowed to exert its potent influence, but the various functions of the body are almost ensured, or restored to their former integrity. "To laugh and grow fat" has become a proverb. Yet, to ensure this happy mood, how manifold are the precepts, — amusements and moderate occupation, and those most congenial to the disposition. But this mental election must not be negative; the mind must be brought not only to forego those perilous pleasures of sense and of sensibility, to which luxury and sloth are so naturally prone, but also to *act* on the subject of its thoughts, not with fatigue and labor, but with that degree of energy which will afford food for immediate reflection, and the memory of which will be the constant spring of tranquil satisfaction. "We should live pleasant," *and regard cheerfulness as a duty*. To ensure this requires often a high degree of self-control, as well as the sympathy of friendship. The greatest caution in conversation is sometimes essential; allusions to subjects which are agreeable, congenial, and

consolatory to the invalid, should be adopted, both in conversation and reading; and objects of beauty and of interest should as much as possible be presented to the mind; for it has been observed how influential are odor and color and form in mitigation of more decided maladies. Of the antipathies of smell and taste we have known very curious instances in nervous patients. The olfactory nerves may become so acutely sensitive as to be oppressed by even grateful odors, so that the poet scarcely exaggerates when he says, —

> "And quick effluvia darting to the brain,
> Die of a rose in aromatic pain."

The morbid eccentricities of touch or feeling are among the most painful maladies of the neuroses. They are eminently characteristic of hysteria. A lady, who was for several years under the writer's care for phthisis, was occasionally affected with intense hyperæsthesia (excessive sensitiveness) of the skin. During this state, a feather dropped on her person would instantly produce such intense agony as to draw forth a shrill and prolonged scream. But to resume our remarks on the hygiene for shattered nerves. We fear that the lesson which we are endeavoring to inculcate is not so easy in this excited, artificial age. We have, in truth, so multiplied our wants, that we become restless, if we do not accomplish all the mind can conceive. Like Ariel, we would put a girdle round the globe in forty minutes or seconds. The age is a nervous one, and hence the desirability — to the world-worn, jaded man — of repose, and the exceeding need of procuring it.

CHAPTER XVI.

A FEW HYGIENIC OBSERVATIONS ON NERVOUS AFFECTIONS.

In regard to nervous patients, Brown-Sequard insists that "A *serious aim* in the daily occupations is of the greatest value, and for many persons, quite essential to prevent or to check nervous disturbances. The applications of this principle are, of course, he says, very difficult, and often impossible, in certain neuroses; but in those cases in which any kind of serious work, either mental or physical, but not too fatiguing or exciting, is liked by the patient, he should be induced to do it. In cases of hypochondria, of hysteria, of chorea, or even of epilepsy, a great benefit can be derived from a serious employment of the mental and physical activity of the sufferer. How often have I not seen young epileptics kept in idleness (alas! by medical advice), and having gained more or less of the vices it leads to, improve rapidly from having their minds occupied at regular hours, in nearly the same way as healthy people of their age. The second principle of moral treatment is, that we must, in the interest of our nervous patients, as much as, if not more than in our own, give them *confidence* and *hope* in the treatment we recommend. In hysterical and all nervous complaints allied with it, and also in hypochondria, *a great hope of cure* will do much to work out the cure. No doubt you will say, But how can you give hope? I answer that the best means for

that purpose is to have hope ourselves, and to express our hope with the accent of conviction. And, as you would ask how can we command hope in ourselves? I answer that the very knowledge of the truth of the principle I am now speaking of, is enough to render one hopeful. I need not now repeat that I am now only speaking of those nervous diseases in which the power of the mind upon the body is so great, that under the influence of an emotion, or another moral cause, a sudden or almost sudden cure is not very rare." * It has repeatedly occurred to me to see patients who stated that they had been for years in the habit of taking large quantities of opening medicines to keep up the due action of the bowels, but still without the slightest advantage or even effecting the purpose; yet have I seen these persons derive infinitely more benefit, in a few weeks, from a few "globules," and strictly attending to the admirable dietetic rules prescribed by Hahnemann, viz. giving up the use of wine, spirits, and all such stimulants, than could possibly have been derived from the adoption of all the routine discipline so commonly insisted on. It may be said, and I have no doubt with a great deal of truth, that the abstaining from the use of wine and ardent spirits, with the strict attention to diet, etc., were really the means of cure; and that the minute doses of medicine in the globules were merely incentives to regimen, but in every other particular wholly inert. Upon this, however, as a purely practical man, I need only observe, that it matters but very little to the patient by what means his health has been restored, so that he perfectly regain it; nor can it interest him much what particular plan of treatment has been the truly efficacious one in curing his disorder. But if patients will not be satisfied without taking large quantities of medicine, they may as well be grati-

* Lectures on the Diagnosis and Treatment of Functional Nervous Affections. By C. E. Brown-Sequard.

fied and amused with globules, or something at least equally harmless, so that they may sustain no injury, while pursuing a rational mode of living, and one conducive to health. Again, I have seen similar benefit, in habitual and obstinate constipation of the bowels, and indeed confirmed ill health, from a few months' well-regulated hydropathic treatment; and such patients have really obtained inconceivably more advantage from strict observance of these rules, and due attention to diet, air, and exercise, than had accrued from the prolonged adoption of the plans recommended by the most judicious and skilful allopathic practitioners. In such cases, regimen seems to have been an important element of success. It has been already observed that the dietetic and sanitary measures inculcated by homœopathy; the invigorating influence of hydropathy; and the various means at the disposal of and resorted to by the allopathist, may, when properly applied, prove of the greatest benefit; but on the contrary, if indiscriminately adopted or injudiciously used, they may prove not only inert, but often very injurious. It must therefore be apparent that, as already observed, before we can determine with any prospect of success on the treatment of disease, we must diligently inquire into the nature of the case, so as to ascertain the cause and remove it; for if this be allowed to continue in operation, it will be vain to expect that the effects will cease, — still less be permanently removed.

But let us suppose that we should prove successful in checking or suppressing the effects, as may sometimes happen, without subduing the cause, we should only aggravate the mischief, and induce confirmed derangement in the system, the cause of which perhaps no subsequent efforts would be sufficient thoroughly to eradicate. Possibly this may be rendered more intelligible by the following illustration. Purging, for instance, may be occasioned by cold applied

to the skin while it is hot and perspiring; the perspiration being suddenly and over-precipitately checked, purging is set up on the part of nature to compensate the suppressed action of the skin, and thereby relieve, at least in part, the system by the removal of noxious principles. Any similar derangement of the bowels may arise from taking too much food into the stomach. Here, then, we find the same effect — relaxation of the bowels — produced by two causes differing altogether in their nature and mode of action. Were we to treat the disorder of the bowels, so occasioned, by the same means, we should most assuredly fail of success, the causes in each being so very different; and therefore the treatment should be varied, and suited to the peculiar circumstances of each case. Instead of checking the purging in the first instance, by administering astringents, absorbents, etc., the warm bath and the administration of medicines, calculated to restore the suppressed or suspended action of the skin, will be more in accordance with the true principles of treatment. But, in the second case, in which too much food, or of an indigestible nature, has been the cause of the derangement, the appropriate treatment will be its immediate evacuation by an emetic or a suitable laxative. A very frequent cause of nervous affections is, intense or unseasonable application of the mind, as in reading while at dinner. By this untimely exercise of the brain, the blood is diverted from its proper course — viz. the stomach — at a time when it is particularly required there to enable the viscus to secrete and supply a sufficiency of gastric juice. Such patients cannot be benefited except they alter their habits, because so long as they force the current of blood towards the brain, when the vital fluid is required elsewhere for the purpose of digestion, this function will be impaired, and but very imperfectly performed, and nervous derangement will continue to result.

Another and very common cause of nervous disorder I have found to prevail much amongst gentlemen engaged the whole day in the city, and who seldom take any food till they return home to a six-o'clock dinner. They then indulge too freely in the pleasures of the table, and burden the stomach with more food than there is gastric juice to dissolve; consequently a considerable portion of the food remains undigested, and, undergoing spontaneous decomposition, gives rise to the evolution of different gases in large quantities in the stomach, painfully distending the organ, and causing belching, acidity, acrid eructations, hiccup, etc. Unless we remove the cause by a more suitable mode of living, the effects will not cease. Medicines may relieve, but will not cure the patient.

Nervous disorder proceeding from another and very different cause, frequently falls under my notice. The affection is attended with violent nervous headache, severe palpitations of the heart, with a sense of sinking and exhaustion. It occurs in persons who are engaged for many hours during the day in active exercise of both mind and body, and who at certain seasons cannot spare time for refreshment till a very late hour, when the energies of the frame have become, as it were, completely exhausted. But even at this late period they are frequently disturbed and called away, before they have had time to finish their repast. Under such circumstances, the frame is enfeebled and overpowered before any opportunity for refreshment presents itself, the stomach naturally participates in the general debility, and in consequence becomes unequal to healthy digestion. Hence, such individuals emaciate, become feeble, and ultimately are prostrated both in mind and body. In such cases medicine is of little or no use; nothing but a more rational mode of living can restore such persons to health and strength. Indeed, it is surprising to see how speedily they recover, when, by

altering their mode of life, the cause of disorder has been removed.

Analogies drawn from the inferior animals often lead us to the knowledge of the true principles of cure. Experience has taught the groom the evil consequences that result from feeding the horse immediately after severe exercise; and physiology unfolds to us the *rationale*. The blood requisite to enable the stomach to form and secrete a sufficient quantity of gastric juice for the purpose of digestion, has not yet reverted from the muscles, whither the current of blood had been more abundantly directed, to increase the muscular energies and activity, and proportion them to the exertions they were called upon to make while under the stimulus of severe exercise. Hence it is necessary to allow the animal sufficient time for repose, that the muscular system may relapse into its ordinary state of quiescence. The animal may then be fed, not only with safety, but with advantage; the stimulus which the food creates brings an increased afflux of blood to the stomach; gastric juice is secreted more copiously, and poured in sufficient quantity into the cavity of the viscus, and, acting with energy upon the food, it is readily dissolved, and prepared for its final formation into nourishment. The same laws hold good with respect to man; and thus it is that analogies often lead to the adoption of true principles, as well as to their explanation.

"Nervousness," says Dr. Trall, "is as much distinguished from all other maladies by mental perversity, as it is by bodily infirmity. Without being criminal or addicted to any particular vices, nervous persons are ill-tempered, peevish, jealous, passionate, and always unreliable. They are untrustworthy, not because of dishonest motives, but because of ungovernable impulses. They are unreliable, not because of intentional wrong, but because of fickleness of disposition and feebleness of will power. They are very selfish, and

sometimes mean, not because they lack benevolent emotions and a right conscience, but because their outward conduct expresses their internal conditions. Cure them of their nervousness, and they may become agreeable, generous, truthful, and faithful, as they have been before. But everything has a cause, and so has nervousness. It has many causes, as many as individuals have unhygienic habits. All personal habits that are unwholesome conduce to it. But in all cases there is some local point of irritation or obstruction, perhaps trivial in itself, from which the whole trouble proceeds. A person may be very weak, as in cholera or paralysis, without being nervous."

"He may be dangerously sick, as of fever, and no one accuse him of nervousness. But if the blood is congested in some part or organ, no matter where nor from what cause, to the extent of disturbing the equilibrium of the circulation, yet not sufficient to occasion acute disease, the person so affected will inevitably have a more or less aggravated form of nervousness. And this fact explains why so many persons are more or less nervous, and why this ailment is peculiar to high civilization."

Among the more prominent special causes are too much night work, want of sleep, great mental anxiety, indigestible viands, narcotic stimulants, as alcohol and tobacco, late suppers, and sedentary habits. Any cause, also, that impairs the vitality and drains the vital fluids, as running sores, frequent bleedings, chronic diarrhœa, will result in nervousness. A very torpid liver, a very inactive skin, and prolonged constipation, never fail to occasion severe and obstinate forms of nervousness. Obstruction, therefore, being the primary and predisposing cause, and unbalanced circulation the proximate condition, the remedial plan is self-evident. Promote circulation to the whole surface as much as possible by occasional bathing, and daily frictions with dry towels;

use only plain and simple viands, so that the internal viscera may be unloaded; and exercise as much as possible, within the limits of fatigue. Sleep all you can, avoid all conversation concerning your manifold miseries, and in due time this nervousness will disappear. Great numbers of men in the vortex of city life seem to suppose that they can indulge constantly and with impunity in sensual excesses, and especially the abuse of wines and liquors, of good cheer, of venereal pleasures, and intellectual excesses, represented particularly by prolonged watchings and preoccupations with business enterprises, works, etc. But sooner or later all such find their mistake in shattered and disordered nervous systems. The writer has by his remedies enabled hundreds of persons guilty of such habitual excesses and violation of the plainest hygienic laws to escape the consequences of their folly. But he has done it by his insisting, when his remedies had done their perfect work in restoring the nerves to their wonted healthful action, upon an entire abandonment of previous bad habits and practices, so that the effects of his medicine might be reinforced by a proper regimen and life.

CHAPTER XVII.

A CURIOUS CASE OF SUPPOSED DEMONIAC POSSESSION.

I COULD very easily fill a dozen chapters with interesting narratives of the manifold illusions, delusions, and hallucinations which I have had to deal with in treating a vast number of nervous cases. These various instances of the *maladie imaginaire* have been, of course, the results of a disturbed condition of the functions of the brain and nervous system. Several years ago a patient was under my treatment, who was thoroughly convinced that he was possessed by unclean or evil spirits. This person was a gentleman of uncommon intellectual power and culture, and on all other subjects, except that of his own demoniacal possession, was sensible, rational, and intelligent. On his first visit at my office, he placed in my hands a lengthy account of his supposed affliction. It was addressed to me, and was in the form of a letter. It is too long for the limits of this volume entire, but I will give the most interesting portions of it, merely prefacing it with the remark that the writer was ultimately cured of his most uncomfortable monomania, and now looks back upon it with almost the curiosity of a disinterested third person. The epistle is subjoined.

"DEAR DOCTOR:

"It was my intention, some time since, to have written you a short account of the sufferings I have experienced for

several years past, from the possession of evil spirits; but in consequence of having been constantly pitied and smiled at, and having met with no one who would sympathize with me, whenever I have broached such a notion, and instanced myself as a proof of the existence of such spirits, I had almost come to the conclusion not to write at all. Unacquainted as I am with theological discussion, and wholly unused to argumentative composition, I am at a loss in what manner to set about an explanation on the subject required." (Here the writer gives a sketch of his life. It seems that he was living with his wife and several fine children in the city of New York, engaged in professional pursuits, which yielded him a lucrative income at the time he was attacked by the singular monomania.) "The profits from my profession," he writes, "still continuing on the increase, I at this period entered into some money speculations, which caused me a little anxiety and some pecuniary embarrassment, but I retained all my usual buoyancy of spirit. It was then while taking a quiet walk one evening, far from the busy hum of men, I heard the sound of voices near me, speaking of me. I looked in every direction, but could not discover any one. I got over some banks, thinking that, probably, the persons might have been concealed from view by them; but no human creatures were there. I walked away from the spot, still the voices pursued me. I mixed with the thickest of the throng in the metropolis; the voices still continued to haunt me, and the words then uttered were 'Who is he? — do you know who he is?' The response was, 'He is Satan's own.' These words seemed continuously to proceed from the persons I passed. I crossed and re-crossed the streets; still the same voices followed me. Every one appeared to ask the same or a like question, and there was a similar reply. Other queries and answers succeeded to these relating to my walking, — for my pace was very rapid, as I

trusted to escape the notice or recognition of the passers-by; but the "Devil's Own" was either whispered or shouted to me, apparently by almost every one; and those from whom the sounds did not emanate, appeared hastily to get out of my way, or, in my imagination, shrunk from me with looks expressive of surprise. No doubt, however, that my strides were those of a possessed person, and caused those I met or overtook to make ample space for me.

"The whole night did I thus perambulate New York and its environs, occasionally dozing, as I stood still for a few minutes; and in this manner I twice accomplished the circuit of the great city, vainly hoping that daylight would end my illusion. Such hope was indeed vain, and I must mention, that not merely the "Devil's Own" was sounded in my ears, but observations and conversations relating to me incessantly occurred. Yet was I perfectly in my senses. I went to the place in which the sounds first reached me, and examined it and the neighborhood minutely; of course I could not discover any human power to account for them. I then began to think of spiritualism, on which I had thought little before, as an explanation of the strange phenomena. . . . The voices loudly and clamorously spoke of all my misdeeds, and taxed me with sins of which I had not been guilty. And I was dared to meet the parties who charged me with such and with other crimes. I did accordingly go to a friend of mine, who is now dead, and told him I had been affected, and that I wished him to be present to hear the voices, if he could, and the charges to be made against me, which I was to deny, or to admit, as the circumstances might be. Several voices then made various accusations against me, and I appeared to be put on a regular trial. I replied to the charges by my thoughts, without speaking, but occasionally my tongue could not refrain from moving within my lips, to express my thoughts without, however, giving utterance to them.

"One of the voices was remarkably clear and loud. It appeared to be that of a being of authority in conversation with another, and although slightly favorable in his expressions of my good conduct throughout life, yet strong and severe were his animadversions on my bad thoughts and actions. And here everything I had said or done, or omitted, was elucidated instantly; hidden motives and thoughts and actions were unravelled, to my great astonishment, and my heart and brain seemed completely laid open. All was written down or directed so to be, and the next day was appointed for a further examination. I asked my friend repeatedly during this trial if he heard any voices. He told me he did not. I mentioned what was now and then said to me, and of me. I smiled at myself, for I knew I was only in a room, and that it was impossible for any worldly being to speak or communicate with me except my friend. I looked at him — he was deeply engaged in writing; could there be any ventriloquism in the case? I knew that my friend was not thus gifted; besides, the voices were with me before I saw him that day. What could have occasioned the sensation of sound I had experienced; the direct appeal to my heart and brain? I was entirely in my senses, and reasoned on the absurdity of my harboring any opinion contrary to my own received notion of the ordinary laws of nature. I began to think of spiritualism — of clairvoyance. . . . The more I thought, the less could I account for the extraordinary ordeal to which I was subjected. I did not believe in evil spirits. . . . I did not believe in the commonly received notions of hell-fire, and flames had no terrors for me, nor have they now. . . . The next day I went prepared for another examination, but I was not again put on trial. The parties seemed partly satisfied with my mental engagement of compensation, as far as I had the ability, of any persons I might have injured in thought, word, or deed. . . . I returned;

still the voices followed me. . . . In the day-time I did not feel the annoyance so much, but in the stillness of night, the torments I endured were unutterable — indescribable. The hellish sounds, the dreadful impieties that were spoken of, that were foisted on me. . . . When I attempted to pray, I could not, for the jeering and laughter. . . . For change of scene, and hoping I could get rid of the voices, I went twice abroad. I tried all kinds of amusements, and also the effect of living very well, thinking my nerves might be improved by a still more generous regimen than I had ever been accustomed to. These having no effect, I had myself cupped, and entirely altered my diet, living chiefly on vegetables, and avoiding all vinous or spirituous liquors. Nothing, however, made any difference in my sensations. The sounds accompanied me everywhere, and I still continued the prey of evil spirits. I could plainly distinguish about seven voices: two of them struck me as the voices of females; one of them sometimes spoke in over-soothing, complaisant accents to me, but these were generally used to turn me into ridicule afterwards. . . . It is now five years and four months that I have had this singular visitation from God, and although I have no faith in dreams, yet most singularly I dreamt of my father's death about the time it occurred, and I have not dreamt of him since, until the beginning of this month of September, when I dreamt that I saw him interceding with God for the suspension of my sufferings from evil spirits, and, strange to say, I experienced for a time relief from their presence and persecutions. . . . Suffice it to say that the writer finally became a firm believer in evil or unclean spirits, and their power to haunt or possess man. He concluded his singular communication to me, which is very long, in the following words: "It strikes me that many persons, who are considered and pronounced deranged, are, really, instead, possessed

by evil spirits. It may be said that I may myself be in a state of derangement. To this I would oppose these facts — that I do not pretend to having had any ocular demonstration of any spirit, nor have I had any distorted visions or ideas. I have not spoken incoherently, nor have I acted contrary to rationality; but I have always been blessed with my senses, notwithstanding this heavy calamity of evil possession with which it has pleased God to visit me. . . .

"I am, sir, your obedient servant,

"——— ———."

When the writer of the above singular account came under my treatment, he had only occasional and greatly mitigated attacks from his imaginary infernal tormentors. In fact, the case had ceased to be very distressing, notwithstanding the patient had become a firm believer in demoniacal influences. He was a sceptic, in the height of his monomania and suffering. It perhaps should be remarked that the gentleman was the son of what is called an Eurasian; that is, his grandfather was English and his grandmother an East Indian lady, which fact accounted for certain psychological peculiarities as well as peculiarities of temperament. I easily reinforced the happy effects which the lapse of years had begun to have on this patient's most delicate and excitable nervous system, with a class of remedies specially adapted to such a case, which was marked by a morbid condition of the auricular nerve. The patient was completely cured under my treatment, and I finally succeeded in demonstrating to him that demoniacal possession was nothing more nor less than one of the forms of nervous malady. The belief in possession by unclean spirits was natural enough in ages of ignorance and superstition, when the mysteries and peculiarities of the nervous system were not in the least understood, and personal agencies were supposed to account for everything.

CHAPTER XVIII.

HOPE AND CONFIDENCE AS THERAPEUTICAL AGENTS.

The physician who cannot inspire hope and confidence in his patient, might as well understand that he has mistaken his calling; and just in proportion as the medical man is able to excite these two exhilarating, buoyant, and curative emotions in the breasts of those whom he treats, just in that proportion ordinarily will be his success. In treating diseases of the melancholic-nervous class, especially, the physician without self-reliance cannot hope to beget reliance in his patient. A third thing, says old Burton, in his famous book on Melancholy, to be required in a patient, is confidence, to be of good cheer, and have sure hope that his physician can help him. Galen, the old Greek physician, holds confidence and hope to be more good than physic. He cures most, in whom most are confident. The great success of another old Greek physician, Hippocrates, was accounted for on the ground that the common people had a most strong conceit of his worth. The young student of medicine is told in Faust,

> "If you on yourself rely,
> Others on you will place reliance."

It is wonderful the healing effect which a hopeful, confident state of mind in the patient has upon his disease. But when one considers the intimate connection of mind and

body, the mystery is solved. Reputation and wide-spread notoriety are valuable to a physician, because they give him a power and sort of magical influence over the mind of his patient. This influence, too, may be given by personal qualities, such as appearance, etc. There is a certain genius for the cure of disease, and an intuitive insight into the ills to which flesh is heir, which some men possess, and which are more valuable than the fruits of the profoundest study. A perusal of the lives of eminent physicians will convince one of the fact, or an acquaintance with one of these *natural* conquerors of disease. Their presence inspires a certain confidence in the patient, a sort of magnetic influence, which reinforces the medicines administered, and causes the happiest effects. Professional jealousy and rivalry may cause these born physicians to be denounced as quacks and empirics, but the public cannot be diverted from recourse to such. Personal power, a strong will, is as necessary in a conqueror of disease, as of armies. In nervous-melancholic maladies, the first thing which the physician has to contend against in his patient, is a fearful depression and downheartedness. Out of this abyss of despair he must be able by his will to lift the victim of nervous malady who has recourse to him. For the victims of nervous disease dwell, as it were, "in a land of darkness, as darkness itself; and of the shadow of death . . . and where the light is as darkness."

To quote from quaint old Burton again: "Of those diverse gifts which our Apostle Paul saith God hath bestowed on man, this of physic is not the least, but most necessary, and especially conducing to the good of mankind. Next, therefore, to God, in all our extremities ('for of the most high cometh healing'), we must seek to and rely upon the physician, who is *Manus Dei* (the hand of God), and to whom he hath given knowledge, that he might be glorified in his wondrous works. With such doth he heal men, and take

away their pains. When thou hast need of him, let him not go from thee. When we have now got a skilful, an honest physician to our mind, if his patient will not be conformable, and content to be ruled by him, all his endeavors will come to no good end. Many things are necessarily to be observed and continued on the patient's behalf: first, that he be not too niggardly miserable of his purse, or think it too much he bestows upon himself, and, to save charges, endanger his health. The Abderites, when they sent for Hippocrates, promised him what reward he would, "all the gold they had, if all the city were gold he should have it." Naaman the Syrian, when he went into Israel to Elisha to be cured of his leprosy, took with him ten talents of silver, six thousand pieces of gold, and ten changes of raiment." We are not sure but that Burton's Anatomy of Melancholy is not even yet the best treatise on Nervousness and Nervous Maladies, quaint as it is. "Melancholy," he says, "is either in disposition or habit. In disposition is that transitory melancholy, which goes and comes upon every small occasion of sorrow, need, sickness, trouble, fear, grief, passion, or perturbation of the mind; any manner of care, discontent, or thought which causeth anguish, dulness, heaviness, and vexation of spirit; any ways opposite to pleasure, mirth, joy, delight, causing frowardness in us, or a dislike. In which equivocal and improper sense, we call him melancholy, that is, dull, sad, sour, lumpish, ill-disposed, solitary, any way moved, or displeased. And from these melancholy dispositions, no man living is free; no stoic, none so wise, none so happy, none so patient, so generous, so godly, so divine, that can vindicate himself. Melancholy in this sense is the character of mortality. The name is imposed from the matter, and the disease denominated from the material cause, viz. *black bile.*" Among the causes of melancholy he includes the *imagination*, which, he says, as it is

eminent in all, so most especially it rageth in melancholy persons. . . . This we see verified in sleepers, who by reason of humors and concourse of vapors troubling the phantasy, will give many times absurd and prodigious things, and in such as are troubled with incubus (night-mare), if they lie on their backs, they suppose a hag rides and sits hard upon them, that they are almost stifled for want of breath. . . . This is also evident in such as walk at night in their sleep and do strange feats. . . . All ecstacies are referable to this force of imagination, such as lie whole days together in a trance; as that priest whom Celsus speaks of, that could separate himself from his senses when he list, and lie like a dead man void of life and sense. . . . Many times such men, when they come to themselves, tell strange things of heaven and hell, what visions they have seen. . . . The like effects, almost, are seen in such as are awake; how many chimeras, antics, golden mountains, and castles in the air, do they build unto themselves?"

CHAPTER XIX.

ALCOHOL, TOBACCO, OPIUM, HACSHISH, LEAD.

It is through the nerves that the five dread agents enumerated at the head of this chapter have their fearful hold upon humanity. These five agents are continually making war upon the healthy equilibrium of the nervous system, and through that deteriorating the race. The symptoms of alcoholic poisoning are those of alternate excitement and depression. Partial paralyses are but the precursors of more grave affections, which terminate finally in general paralysis, deterioration, and ultimate loss of intelligence. A French writer maintains that insanity is merely the last degree of degeneracy. In the first generation you have immorality, depravity, alcoholic excess, brutish disposition; in the second, hereditary drunkenness, maniacal accessions, and general paralysis; in the third, sobriety, hypochondriac and maniacal tendencies, systematic ideas of persecutions and homicidal impulses; in the fourth, weak intelligence originally, access of mania, stupor, transition to idiocy; *finally*, extinction of the race. M. Morel, the French writer, already alluded to, asks, in his work on the "Degeneracy of the Human Race," what may be the part which tobacco plays in the production of degeneration? And admitting even that its degenerative action is an ascertained fact, how far would it be good medical hygiene to

attack the usage of tobacco, which has become for all nations not only a habit but an imperious necessity, to be satisfied at any risk? I have no intention, he says, of attacking its use, and this for many motives: first, it is far from being proved that the habit of smoking, *in moderation*, is in any way injurious; and, secondly, it would not be without danger to invoke the force of an absolute legislation against a habit passed into such an irresistible necessity. Medical men engaged in the investigation and treatment of the diseases of the brain and disorders of the mind, occasionally have brought under their notice cases of severe nervous disorder and mental impairment, clearly traceable to an excessive and immoderate use of tobacco. Shattered nervous system, premature loss of mental vigor, impaired memory, mental alienation, are too often the well-defined result of excessive tobacco-smoking. These are facts that cannot be ignored when considering the question.

If society were in a more natural condition, or one more in accordance with the most obvious rules of hygiene, it is highly probable that no poisonous agent, whether narcotic or stimulant, would be habitually desirable or allowable. It would not be easy to define accurately what *is* a natural state of society; but it is easy to say what is *not*. For instance, it is not *natural* for man to pass his life underground, as in mines; to be exposed, in addition to the ordinary atmospheric changes, to those of moisture and cold, in connection with sieges and the life of armies in active service, and to migrations from mild to extreme climates and new conditions of existence; to be immersed perpetually in poisonous or irritating vapors, as in various branches of art or industry; to be suffering the extremes of misery, privation, and hereditary disease. It does not appear improbable that in the warfare with evil influences which man is constantly called upon to wage, that within moderation the use of tobacco may have

as beneficial effect in enabling him to resist successfully some of these influences, as any other prophylactic agency may have in other cases. It may be injurious to the normal constitution normally treated, but may it not avert or resist the abnormal consequences of a different condition? In other words, the use of tobacco *in moderation*, and under circumstances of great hardship and privation, is upheld by many men of high scientific attainments and sound judgment, as not only not injurious, but beneficial. Then, again, it is said by high authorities, that cases of general paralysis and softening of the brain are fearfully multiplied by tobacco-smoking. As for opium, that is an agent whose effect upon the nervous system is of an appalling character. The use of this seductive drug is enormous. The Indian hemp or Hacshish forms the basis of most of the intoxicating preparations in Egypt, Syria, and most Oriental countries. The leaves are smoked alone or mixed with tobacco. Besides the habitual hallucinations which the extract of Indian hemp produces in some individuals, its prolonged usage induces incurable dementia. There is reason to believe that such is the case in many persons met with in the cities of Egypt, who are venerated as holy men (santons) by the people, but who are merely fallen into a state of dementia from the use of hacshish. To return to tobacco for a moment. A distinguished English physician avers his belief that cases of general paralysis are more frequent in England than they used to be, and he suspects that smoking tobacco is one of the causes of that increase. He further believes that if the habit of smoking advances in England as it has done for the last ten years, that the English character will lose that combination of energy and solidity that has hitherto distinguished it, and that England will sink in the scale of nations. Tobacco is reprobated because it produces insanity, paralysis, consumption, laryngitis, tonsillitis, short sight, emaciation,

dyspepsia, and an infinity of minor disorders. It is upheld because it is pleasant; because it is a valuable therapeutic and hygienic agent, a preservative against cold and starvation, a substitute for food, a solace to the weary, whether of mind or body. One writer attempts to settle its value by an appeal to final causes, asking, "Why was tobacco created, if not to be smoked?" perhaps overlooking the fact that the same trenchant argument applies to every vice. Another writer says, if the evil ended with the individual who, by the indulgence of a pernicious custom, injures his own health and impairs his faculties of mind and body, he might be left to his enjoyment, his fool's paradise unmolested. This, however, is not the case. In no instance is the sin of the father more strikingly visited upon the children than in the sin of tobacco-smoking. The enervation, the hypochondriasis, the hysteria, the insanity, the dwarfish deformities, the consumption, the suffering lives and early deaths of the children of inveterate smokers, bear ample testimony to the feebleness and unsoundness of the constitution transmitted by this pernicious habit. This is the age of narcotics and narcotism, and they undoubtedly have much to do with the marked increase in the number of cases of disease of the brain and nervous system. We think the fact is indisputable. Physicians who have favorable opportunities of investigating this subject, not only agree in opinion that such diseases are of more frequent occurrence, but that a certain unfavorable (but in its incipient stage certainly not incurable) type of cerebral disorganization develops itself in the present age at a much earlier period than formerly. Softening of the brain, for example, now manifests itself at the early age of thirty and thirty-five! It is indeed lamentable that the brain and mind should yield to the influence of certain noxious moral and *physical* agents, at a time of life when the intellect ought to be in an active and vigorous condition of exercise and health.

Speaking of the immense use of narcotics, let us take China, whose habit of opium-smoking has invaded Europe and our Pacific slope. Neither tobacco nor Indian hemp (nor *perhaps* alcohol) compares with opiums either in the constitutional result, or in the difficulty of breaking the habit. China presents a curious spectacle of moral disease. Three hundred millions of individuals united under one absolute government, speaking the same language and having identical religious notions, present to us the sad spectacle of a people menaced, as to its dearest interests, by the most fatal and degrading habit that it is possible to conceive — that of smoking opium. The effects of this habit, immediate and remote, are thus described: "The first impression is a feeling of content and slight excitement, manifested by loquacity and involuntary laughter. Sometimes there are fits of anger. Soon the eyes become brilliant, and the respiration and circulation are quickened and excited. At this stage of the nervous exaltation, the smoker feels a peculiar comfort, and the temperature is augmented. The impressions are lively, and the imagination wanders into strange illusions. Now we observe a phenomenon frequently remarked in mental alienation. Facts and ideas, long forgotten, present themselves to the mind in all their original freshness. The future appears all bright, and every happiness ever wished for appears realized by the smoker. If he continues smoking, exaltation gives place to depression and utter prostration. The action of the senses is suspended. He hears nothing; he becomes silent; his face becomes pale, his tongue hangs out; a cold sweat inundates the whole body; and insensibility supervenes, often lasting for several hours. The awakening is what might be expected after such a debauch." Except some few smokers, who, thanks to an exceptional organization, can restrain themselves within the bounds of moderation, all the others attain rapidly a fatal termination,

having passed in quick succession the stages of idleness, debauch, misery, the ruin of their physical strength, and the utter degradation of their moral and intellectual faculties. Nothing can cure an advanced smoker of opium.

Another poisonous agent which wages war upon humanity and conduces to degeneracy, is lead. There are analogies between *lead* colic, and partial lead paralysis, and alcoholic poisoning. There is, in the commencement, trembling, weakness, and paralysis of the lower extremities, and diminution of the general sensibility. Soon there are twitchings and cramps, dizziness, fantastic dreams and hallucinations; and these are exactly the symptoms of the anæsthetic form of alcoholic poisoning. These are the symptoms inseparable from all chronic poisonings; and more than that, they are the essential signs which announce, by their duration and their constant progress, that the individual is smitten in the most important functions, and is tending to degenerative transformation more and more radical. Those who present the first signs of the action of the poison of lead, as the blue line in the gums, and the yellow tinge of skin, appear for a time to be quite well; all the functions are correctly performed; the subject complains of no pain, and follows his employment as usual. The nervous lesions which ultimately occur assume all forms of delirium, coma, epilepsy, etc., sometimes after several attacks of colic, sometimes unpreceded by it. After the occurrence of these, especially the epileptic seizure, the reason is never sound again. In lead poisoning, the individuals affected are too few, comparatively, and the fatal termination too sudden, to permit any very definite calculation as to the effect finally upon the race. But the effects which the use of alcohol, tobacco, and opium, wide-spread as it is and has been, has had upon the Nervous System of the Race, both directly and by transmission, must defy calculation. What a sum-

total of degeneracy and degradation, both moral and physical, have these mighty agents of nervous elevation and depression caused! What wonder that general paralysis and softening of the brain are becoming the most frequent diseases mentioned in the death-list! No one is ignorant that many organic dispositions in the human race are transmissible from one generation to another; but it is not generally known how far this principle extends. It is believed in general that form and appearance are transmissible, but it goes much further than this. It is ascertained that *all* morbid dispositions, all *pathological predispositions*, are inheritable from parents to children, as well those belonging to the organs of vegetative as of animal life. The predisposition to nervous maladies, to epilepsy, to mania, is transmissible as well as that of gout, rheumatism, scrofula, etc. Now the predispositions have not constantly existed in all preceding generations, but have been acquired by some part of the ancestry, and handed down to the descendants, the morbid taint becoming more and more pronounced in every generation. Whatever may be the form of the physical degradation, and whatever the nature of the lesions experienced by the individual, whether arising from alcohol, opium, or other causes, it is not necessarily the same typical form, nor the same lesions, which are to be expected in his descendants. The deviation from the normal type of humanity shows itself in succeeding generations, by internal and external signs perhaps much more alarming: since they represent enfeebled faculties, an addiction to the worst tendencies, and the limitation of *intellectual life* to a certain period, beyond which the individual is no longer in condition to fulfil the functions of humanity. In contemplating successive generations under these unhappy conditions, we observe a series of manifold nervous phenomena having in general a convulsive type; and forming those pallid, suffering, and morbid temperaments,

as well as those incredible moral perversities and intellectual aberrations, which, by their nature and frequency, justly astonish those who have not watched intently the formation of such degenerate races. As long ago as the last part of the eighteenth century, the abuse of alcoholic liquors in Sweden had produced a degeneracy in stature and physical strength among the people of that country. In this country, at the present time, the annual list of the victims of alcoholism is enormous. The moral effect of the use of opium in China is marked. It is almost impossible to imagine, says Huc, the readiness with which the Chinese commit suicide. The merest trifle, or a word, induces them to hang or drown themselves, the favorite modes of suicide. Mental aberration, serious as it is in any point of view, in this light becomes doubly so, when it is not merely an individual affection, but the fatal climax, and as it were *resumé* of a long line of individual and hereditary affections. It is easy to conceive how, from one generation to another, the moral and physical condition is greatly deteriorated, when what was the habit merely of one generation, became an instinct and impulse in the next; when, added to the hereditary taint, was the force of example positively, and negatively the absence of all instruction and useful education; when to the disease of the mind already existing, either actually or potentially, was systematically denied the exercise of the commonest rules of hygiene or therapeutics, and the ordinary restraints of morals and religion. In cases representing so deplorable an ancestry as this, medicine will do little in altering the condition of the individual, which may be considered virtually beyond cure; but there remains a noble part to play in the enunciation of principles which, when carried out, will tend to the removal of those causes to which so many of these evils are attributable.

CHAPTER XX.

BODY *vs.* MIND.

It is a curious and interesting study to trace the variety of opinions which have been held concerning the respective existence and the mutual relations of the Body and the Mind, — opinions which have, in turn, taken up every position between the absolute non-existence of Mind, save as a form or function of Matter, on the one hand; and, on the other, the merely phenomenal existence of Matter dependent upon the variations of a sentient or thinking immaterial existence, — the Mind.

The scientists now generally maintain that Mind is a result of organization. But for ages the belief has been that man is a compound being, consisting of a material man, the Body, and an immaterial active principle, the intelligent Mind. Those that maintain this doctrine are now called animists, from *anima*, the soul. In the old gentile nations the body was carefully trained along with the mind. But under the peculiar views of Christianity, when it was introduced into the world, the body became gradually neglected and despised, though this result was naturally of tardy growth. Christianity was not at the start *muscular*, as the phrase now is. The Christian doctrine of immortality, though a belief in immortality was not peculiar to Christianity, gave to the mind, or spirit, which was supposed to be the deathless prin-

ciple in man, a supremacy over the body in the estimation of believers. Body and Mind began henceforth to be held, by philosopher and Christian, to have separate and antagonistic interests. To the former, the body was a clog, an impediment to the acquisition of knowledge, a something perpetually interfering, by its pains, its sorrows, and its imperfections, with the clear views of truth which he supposed the unencumbered soul would obtain, — constantly distracting the attention by its material relations and requirements, — ever of the earth, earthly,—tending to its own source, bending and dragging the soul along with it. To the Christian, the body was sin incarnate, the source of all evil and temptation, the barrier between the soul and heaven. In the early centuries of our era, the body seemed to be of ever less and less estimation. There is something even amusing in the excess of contempt in which it was held and the abuse heaped upon it. A prison-house, a cage, a weary load of mortality, — these were by comparison complimentary terms. One old ascetic Christian writer, a saint of course, calls the body "an ill-savored sink," "a begrimed, pestiferous workshop," "a lump of flesh, which mouldereth away and draweth near to corruption while we speak of it." The torments of the body were so utterly despised as to be scarcely considered personal matters. In fine, the body was considered the source of all evil, and, as such, worthy of no consideration. The saints and philosophers held that these our mortal members do produce the effect of fear, desire, joy, and sorrow, in our bodies; from which four passions the whole inundation of man's enormities have their source and spring. One old sect of religionists held that the body was so evil, that its creation cannot be ascribed to the same author as that of the soul. They held all flesh the work of the Devil. In their opinion the great object of the government of the God of light was to deliver the captive souls of men from their corporeal

prisons. Of course these folks must have regarded a skilful physician as a servant of the Evil One, because he cured the body of disease, and prolonged its existence.

Thus did theology cause an antagonism, a division of interests, so to speak, between the material and the immaterial elements of man's nature, — one which in various forms, in accordance with the spirit of the times, has been propagated even until the present; now one and now the other being held in paramount esteem, in accordance with the demands necessary to be made upon their functions. Here, brain has been had in honor; there, thews and sinews. But the present is essentially an iron and a practical age; both strong limbs and thoughtful minds are in requisition; and the spirit of the age is in nothing more manifest than in the manifold attempts, by the spread of national education and the increased attention to the sanitary condition of the masses, to balance the interests of these hitherto conflicting elements. The present prime minister of Great Britain, Mr. Gladstone, about half a generation ago, said, "There still remains in some quarters a vulgar notion that there is a natural antagonism between corporeal and mental excellence. I trust that corporal education will never be forgotten; that the pursuit of manly sports will always receive the countenance and encouragement, not only of the boys who engage in them, but of the masters who are responsible for the welfare of those boys." These were memorable words at the time they were uttered, and produced an effect which is perceptible on both sides of the water, especially in our colleges and schools.

Now, our leading clergymen are foremost as hunters and fishers and rovers of the forest and lake. Fifteen years ago, before the revolution in regard to gymnastics in our institutions of learning had fully taken place, the "London Times" said, "It was a great point in ancient philosophy, the value it

attached to the body, and the proper training of it, the preservation of its health, strength, and all its proper powers. Ancient philosophy did not despise the body, did not regard it as a mere husk and outside of human nature, or treat it as a despicable and absolutely vile thing; it regarded the body as a true part of human nature, deserving of proper deference, for the failure of which it was sure to retaliate upon the whole man.

Hence the gymnastics of the Greeks, which were not only fostered by the boxers and wrestlers, but went on under the solemn sanction of sages. There is a distinction between ancient and modern thought on this subject, and the ancient has certainly the advantage over the modern in this particular point — at least over the modern before the latest improvements. It has been too much the fashion with us to decry the body, to talk it down, to speak scornfully of it in every possible way, to be always comparing it with the mind for the sole purpose of showing how vile and worthless it is in comparison, — a mode of speaking which if it be abstractly true, may be indulged in such a degree as to involve a practical untruth. . . . After all our sublime abuse of the body, a body man has, and that body is part of himself; and if he is not fair to it, he himself will be the sufferer. The whole man will be the sufferer, — not the corporeal man only, but the intellectual man as well. If the body is thoroughly out of condition, the mind will suffer. It may show a morbid enlargement of one faculty or another, but the directing principle — that which alone can apply any faculty or knowledge to a good purpose, can regulate its use and check its extravagances — is weakened and reduced. How miserable is the spectacle of morbid learning, with its buried hoards, and its voracious, insatiable appetite for acquisition, united with the judgment of a child! Such study does, in short, leave men children with remarkable memories and

acquisitive powers, who know as much history, philosophy, and poetry as would make a learned man, but who are not a bit nearer being men in consequence, because they simply know by rote what they know, — they do not understand their own knowledge. This is to a considerable extent the case with all morbid learning, where the general intelligence has not been cultivated, — which general intelligence depends on the soundness and health of the whole man, body and mind too. The picture of a Kirke White dying at the age of twenty-one of nocturnal study, wet towels round heated temples, want of sleep, want of exercise, want of air, want of everything which Nature intended for the body, is not only melancholy because it is connected with an early death: it is melancholy, also, on account of the certain effect which would have followed such a course unchecked if he had lived. We see, when we look down the vista of such a life, an enfeebled and a prostrated man, very fit to be made a lion of, like a clever child, and to be patted on the head by patrons and patronesses of genius, but without the proper intellect and judgment of a man. How sad even is the spectacle of that giant of German learning, Neander, lying his whole length on the floor among his books, absorbing recondite matter till the stupor of repletion comes over him, forgetful of time and place, not knowing where he is, on earth or in the moon, led like a child by his sister to the lecture-room when the lecture hour came, and led away home again, when it is over. Is this humanity, we ask, as Providence designed us to be? Is it legitimate, rational human nature? It can hardly be called so. We must not let the mind feed itself by the ruin of the body. The mind has no right to this indulgence, this dissipation and whole-length abandonment to its cravings, any more than the body has to sensual indulgence. This mental drain, the noxious stimulant which produces this overgrowth of mind, is as contrary to nature as the coarser stimulant

which unduly excites the body. The mind should be a good, strong, healthy feeder, but not a glutton. We have no right to despise the body, or to speak of it only and exclusively as something which is vile in comparison with the mind. This language will lead astray; it will make ardent, ambitious student youth neglect health, and abandon themselves to the process of acquisition at the cost of body, and ultimately of mind too. Do not use too unsparingly the motive of ambition in dealing with youth. It is a motive which is perfectly honest and natural within proper limits, but when pushed to excess it produces a feeble, sickly, unmanly growth of character; it creates that whole brood of fantastic theorists, sentimentalists, and speculators, which in art, science, and theology alike, are the seducers and the corrupters of mankind. Nowadays there is happily no danger of neglect of the body. The mind is now studied in connection with the nervous system. Brain and mind are now used convertibly. The brain proper is the one organ which increases from the fish to man in proportion to the intelligence. It is now recognized that without a healthy body the mind cannot be healthy or sane. Within a few years past we have seen the students of our oldest university contending with those of an English university, not in scholarship, but in the purely physical art of rowing. It is scarcely necessary to allude even slightly to the proof that the brain is the material organ (and the only one) through which the mind acts, and communicates with the external world, — this is generally acknowledged.

It is less understood that the brain, as an organ, is subject to precisely the same laws, chemical, dynamic, and automatic, as other organs and tissues. It is also not disputed that every action of the body is attended by the phenomenon of nutrition, including the decomposition of some of the old tissue, and the supply of its place by new particles; and that the

evidences of such decompositions in the blood and the excretions are in exact ratio to the energy and and continuity of such actions. But although the laws of nutrition are in as active operation in the brain as in any part of the system, we find it at first difficult to realize the fact so well established by undisputed physiological testimony, that these acts of nutrition are in their essence the necessary conditions of every act of intelligence, perception, or volition; that, like all other tissues actively concerned in the vital operations, nervous matter is subject to a *waste* or *disintegration*, which bears an exact proportion to the activity of its operations; or, in other words, that every act of the nervous system involves the death and decay of a certain amount of nervous matter, the replacement of which will be requisite in order to maintain the system in a fit state for action;* in short, that every idea, every emotion, every act of volition, and every perception, however passive or fleeting, is necessarily attended by a waste and decay of a certain portion of brain tissue. Carpenter says, "In the healthy state of the body, when the exertion of the nervous system by day does not exceed that which the repose of the night may compensate, it is maintained in a condition which fits it for moderate constant exercise; but unusual demands upon its powers — whether by the long-continued and severe exercise of the intellect, by excitement of the emotions, or by the combination of both in that state of anxiety which the circumstances of man's condition too frequently induce — produce an unusual waste, which requires for the restoration of its powers prolonged repose." It is certainly inexplicable how matter and mind can act and react one upon another; the mystery is acknowledged by all to be past finding out, and will probably ever remain so; the co-ordinate phenomena, however, are open to investigation, and it is clearly ascertained that to certain mental condi-

* Carpenter.

tions a certain state of the material organ is attached; and for certain mental acts, certain chemical changes in this organ are requisite. A German physiologist says, "Without phosphorus, without thought. A due supply of arterial blood is requisite for the proper action of the mind. Loss of consciousness follows abstraction of this stimulus. The quality of the blood circulating through the brain also influences the development of ideas; if it be deficient in oxygen, delirium of course follows. The digestion of food introduces a quantity of imperfectly assimilated material into the circulation; until this new material has undergone the necessary changes, and while certain matters, altogether unfit for nutrition, are mingled with it, it is not adapted to excite those states of the brain which are necessary for the proper manifestation of mind; and as it is conveyed to that organ by the circulation, it produces an injurious change in it, and impedes or destroys the mental functions. Hence the indisposition to mental labor experienced by some persons after meals."* The same effects are produced in a more marked degree by wine, spirituous liquids, narcotics, and the presence of bile or urea in the blood. The organic affections of the brain necessarily and obviously modify the mental conditions, not only by destroying the efficiency of a certain portion of the tissue, but by interfering with the due performance of the organic changes in the other parts. All this is sufficiently comprehensible, that the organ being deranged is no longer capable of performing the behests of the mind. It is much less so how the derangement of the immaterial essence can effect the organic structure; yet the fact is indisputable. The simplest illustration may be drawn from an occurrence not unfrequent in ordinary experience. A person in perfect health receives a letter containing, perhaps, some fatal news; he drops down, smitten with appolexy, and after

* Müller.

death it is found that the cerebral tissue is torn by an effusion of blood into its substance. Joyous emotion may produce the same or analogous result. A young Frenchman received a complimentary letter from the Directory; he was struck motionless, and his head immediately became affected in a manner from which he never recovered. The paleness of the skin, and weakness of the circulation accompanying the depressing emotions; blushing, and other determination of blood; excitement of the arterial action, under the influence of anger and the allied passions, — all illustrate powerfully and sufficiently the force of mind. Enough has been said to show the powerful influence which states of mind have upon the body.

CHAPTER XXI.

GENERAL PARALYSIS.

A PRELIMINARY idea of the nature of the affection of which we speak may be obtained by a glance over the various names by which it has been known. It has been called general paralysis of the insane, paralytic insanity. Incomplete and progressive paralysis, from its symptoms and its connection with mental disorder, from its usual pathological characteristics it has been termed slow or chronic meningitis, and meningo-cerebritis. It is a disease which may be briefly said to be characterized by disorder of the intellectual and volitional powers, — not always, or even generally, in strict proportion one to the other. The mental affection is usually of the *expansive* character, attended by exaggerated notions of the wealth, position, or personal qualifications of the subject, terminating in dementia, or total eclipse of the mind. The physical disorder consists in a progressive weakness and uncertainty of action of the voluntary muscular system generally; in a majority of cases, beginning with the muscles of the tongue, and those connected with articulation, so that stammering is very often the first symptom of the invasion of this affection. In a patient who has evinced any tendency to mental derangement, there can be few symptoms of more serious import than this, — a tendency to stammer, or a difficulty of pronunciation of certain words; it may be appre-

hended with a great amount of certainty that general paralysis is imminent, and that death, soon or late, will follow as the almost necessary result, let the physical health have been up to that time ever so good. It may be expected that very soon the tongue and the muscles of the face will act irregularly and tremulously, and that this feebleness and uncertainty of function will extend to the entire locomotive system, sometimes attacking first the inferior and sometimes the superior extremities. The term "general paralysis" is, however, somewhat deceptive, as not indicative of the absolute phenomena of the disease in its progress. It is not until the latest stages that the paralysis becomes truly general, and no voluntary power is left, not even of the sphincters. But it is in so far general that it is not hemiplegian or paraplegia, nor *local* paralysis, differing from all these essentially, inasmuch as *all the muscles of the body* are indiscriminately liable to be attacked, and sooner or later are so affected. It is rather singular that a disease so well marked in its phenomena, and so serious in its results, should only have attracted attention in so comparatively late a period of medical history. Many of our hospitals for the insane simply refuse admission to patients affected with paralysis, as being incurable. This is a highly important subject, and why? it is getting to be, even numerically, very prominent in the causes of death affecting our bills of mortality, much more so than has hitherto been suspected. There are forcible reasons, in a scientific point of view, why it is deserving of special attention. The physical causes of insanity are hitherto involved in great uncertainty.

Some pathologists go so far as to assert that in a majority of changes cases of simple derangement of intellect, *no* morbid condition of the nervous centres can be detected, and that in a majority of the remainder, such changes are too unimportant and too undefined and unspecific to be considered as causes. Others aver that they have never examined the brain of a

patient who has died insane, without detecting some morbid alteration of the brain or its membranes; and these authorities are certainly amongst those who have had opportunities, not by units or tens, but by hundreds of cases. Again, others affirm that the visible and palpable changes are certainly in many cases deficient, but would, doubtless, be revealed were our means of investigation by the microscope and by chemical analysis more perfect. And, in addition to all this variety of opinion, it has to be taken into account that whatever may have been the proximate cause of the mental affection, certain additional, physical changes must have taken place in order to cause death; and there is the superadded difficulty of deciding what has dethroned reason, and what has destroyed life. In short, we are still ignorant of what may cause mental aberration, and what is its essential, material element; nor have we as yet obtained any certain starting-point, any positive data whereon to found a clearly inductive system of research. One of the principally contested points concerning this affection is, whether it is essentially connected or not with mental disorder, for it appears to occur sometimes entirely independent of mental affection; sometimes to supervene upon it; and sometimes to precede it by months, or perhaps years. The causes of general paralysis are immediate and predisposing. The former are such in general as produced prolonged over-excitement of the brain, — sensual excesses, especially the abuse of intoxicating drinks, over-feeding, sexual indulgence, and intellectual excesses, accompanied by prolonged vigil. The predisposing causes may be considered to be such as belong to insanity and brain affection generally; the disease moreover attacks men much more frequently than women, and both chiefly between the ages of thirty and forty-five years. The *symptoms* of general paralysis (of the insane) consist of a non-febrile lesion of the intelligence, the sensibility, and voluntary motion.

The intelligence is constantly affected from the commencement of the malady. Sometimes only observed as a feebleness of memory or judgment; and most frequently, as mania with the delirium of grandeur and power; sometimes as melancholia, and sometimes again, as simple dementia from the outset, a condition into which all the previous forms have a tendency to merge, as the disease makes progress. Whatever may be the original specific type of the mental affection, the faculties are observed to be enfeebled progressively even during the excitement of the opening delirium; and this goes on until the last phase is characterized by the utter extinction of all intelligence. The alteration consists in progressive weakness of the voluntary movements, commencing by trembling of the muscles of the tongue and mouth, by a more or less marked difficulty in the pronunciation of words, and afterwards by hesitation in walking and uncertainty in standing, with trembling and weakness of the hands and arms. The loss of muscular power extends often, and especially in the later stages, to the sphincters of the bladder and anus. When arrived at the extreme, the loss of power condemns the sufferer to absolute immobility and muteness. The loss of sensibility has not been studied with the same amount of care and attention as has been bestowed on that of motion and intelligence. Yet it is ascertained that the general sensibility is notably diminished, and the sense of touch greatly deteriorated. The sight and hearing partake in some measure in the general dulness of sense. The *seat* of the malady is in the cortical layer of the cerebral hemispheres. The progress of the development of this affection has certain characters which are special to it, as relating to the connection and succession of the symptoms, and the termination of the disease. Impairment of the memory and judgment is evident from the first, and continues always increasing until their entire abolition. One of the most special and distinctive

as well as most serious characters of general paralysis is that it *terminates constantly by death*. As we proceed, we may find some exceptions to this in the general paralysis occurring independent of mental disease, but most observers agree, that when once general paralysis has appeared, *even slightly*, in an insane person, there may possibly be a remission of symptoms even for a considerable period, but there can be or rather has been hitherto no cure, — death is imminent and certain, although at a very uncertain period. Perhaps the average duration may be from two to three years. It is very common before the close of life to observe gangrenous sloughs in all parts of the body that are exposed to pressure; the phenomena of life are merely vegetative for some time before dissolution. It is very common to see patients who have gradually fallen into *dementia* without presenting any of the symptoms of reaction or delirium, or in whom these have been extremely slight and subordinate. As this decay of the intelligence is established, we notice at first slight, and then more marked signs of paralysis; and shortly we have developed a paralytic insanity so marked, that none can mistake it. By the side of this numerous group there is another which is yet more so, especially amongst men. The patient begins by presenting the signs of an excitement more or less lively; he moves about perpetually, and cannot remain still for a moment. At the same time he forms large projects, buys all manner of objects, gets angry when opposed, and cannot sleep. To this state succeeds a complete maniacal delirium, with predominance of ambitious ideas, and a special muscular agitation quite distinct from that of ordinary name. At the same time, if we are in the habit of attentively observing such patients, we shall detect a *little hesitation in the pronunciation of certain words*. Such are in the two groups which are at present designated under one name, that of insane paralysis. These symptoms are assuredly very much

opposed. In the one case we see debility, inaction, and the slow extinction of the cerebral functions; in the other, force, violence, and an increase of physical and intellectual activity. Authors have related a *few* cases of recovery, even after the patients had presented the gravest symptoms of paralysis; and that although these facts may be considered exceptional, they are doubtless of the highest significance. Observation 1st, — Mania for some months, with predominance of ambitious delirium; very marked symptoms of paralysis, with difficulty of walking and standing. *Stammering not present*, but some hesitation occasionally before a word. Formation of gangrenous sloughs, followed by recovery, which lasted twenty-five years. Observation 2d, — M——, aged forty-one, had some insane relations, and became melancholic himself after some domestic trouble. He had some epileptic attacks; the speech became imperfect, and one arm weak. After his entry into the asylum, he was in continual agitation and had the delirium of grandeur and riches fully developed. Pupils unequal, tongue furred, pulse accelerated. The sensibility became very much diminished, and the paralysis extended to sphincters. He could not walk nor write his name; there appeared a great number of sloughs on the body, some apparently without cause, some where his agitation had bruised the skin. After attaining almost the lowest state of paralysis, he began to recover, — as it is stated not by means of therapeutic agency, — and both his reason and his bodily powers returned. He was alive and well when the account was written, ten years afterwards.

(From the "American Journal of Medical Science.") Observation 3d, — General paralysis, apparently of the worst kind; symptoms of the last period. Acute œdema of one leg, with gangrene. Rapid recovery which is known to have lasted six years. Observation 4th, — Acute mania, with tendency to ambitious ideas; feebleness of the memory, uncer-

tain walk. Eruption of boils with abundant suppuration, embarrassment of speech; recovery. Duration of the malady, one year. Duration of the recovery, five years. Sudden death from cerebral hæmorrhage. The fifth case recovered after an abscess of the liver; the sixth after a purulent discharge from the ears; and the eighth after an amputation, followed by profuse suppuration. In all these cases the paralysis was so far advanced as to be unmistakable; the authorities from whom they are quoted are unimpeachable. We must therefore admit the *possibility* of paralytic ambitious mania being cured. As for remedies: moderate local bleedings, says Pinel, at the outset only, and when there are signs of congestion, — issues at the base of brain, repeated vesications over the scalp — general affusions, and revulsives from the intestines and extremities, are the principal means to be used. There are well authenticated cases of recovery. I am convinced, says Pinel, that general paralysis is not a disease especially appertaining to the insane; that it is not a form of insanity; that it does not necessarily and fatally induce it; that it is an affection independent of this latter, so long as the alteration which produces it does not extend to that portion of the molecular structure of the brain, which presides over intelligence; and I believe that this portion of the brain may escape lesion during the whole period of life.

The question of the essential nature of general paralysis has perhaps been complicated more than by any other consideration, by that of the variety of manners in which it makes its first appearance. We will briefly sketch three. General paralysis presents itself in four forms, two of which are marked by bodily disorder, and two by mental. 1. The *paralytic variety*. This is the most insidious of all the forms in which this fearful disease appears, and has perhaps given rise to more contest as to its nature than any other. For some time the only disorder appears to the ordinary observer

to be one of the motor functions exclusively. The patient himself perceives that his actions become irregular, trembling, and wanting in precision. He lets fall objects which he holds in his hands, and cannot perform any acts which require delicacy of manipulation; writing, drawing, or playing on any instrument becomes difficult. He stumbles against the slightest obstacle, and walks with a jerk; he is more quickly fatigued than formerly, and all his motions lack co-ordination. All this, which comes on very slowly and imperceptibly, is accompanied from the outset by a peculiar hesitation and embarrassment of the articulation, or stammering. Ordinarily there is a slight pain in the head, and dizziness, an unequal dilatation of the pupils and not unfrequently genital impotence, with occasional incontinence of urine. During this period the patient is conscious of his failing strength, and troubles himself about it. He appears at first to enjoy the full exercise of his faculties; but although in some rare cases it is not possible to detect any intellectual weakness, in general the practised observer will recognize some indication of this. There is an undefined alteration of character or disposition, a mobility of temperament that scarcely admits of description, the performance of odd, bizarre acts that pass for eccentricity, a tendency to make mistake in his usual employment, a slight weakness of memory for recent events, and, what is the most serious symptom of all, a combination of a marked hypochondriac tendency, with a general feeling and expression of satisfaction and pleasure, the sure forerunner to an outbreak of the expansive ambitious maniacal delirium, which is not then long delayed. 2. The *congestive variety* in this form, the physical symptoms again predominate over the psychical. The predominant character is one of transient and recurrent congestion of the brain with or without loss of consciousness, ordinarily slight, though sometimes very severe, simulating apoplexy or epilepsy, and

giving rise to the opinion that the subsequent paralysis has been caused by one of these affections. This form of congestion is distinguished from the ordinary apoplectic form, by leaving more serious and persistent traces in the moral and physical nature. The speech remains for a long time disordered, the movements of the limbs become difficult, and sometimes there is even incomplete hemiplegia, which diminishes and disappears slowly, to return perhaps after the next congestion. The intelligence is affected after each attack, as well as the motive powers; but if there be any considerable interval, both orders of phenomena partially disappear, and the patient is restored to a comparatively healthy condition; *apparently*, immediately after the attack we may detect a considerable feebleness of memory and the other faculties; but in time the intellect appears to resume its activity. After several attacks, however, both the physical and intellectual nature is found to be unmistakably deteriorated, and dementia, accompanied by various forms of delirium, supervenes. In short, like the last form, the malady assumes the ordinary aspect of "general paralysis of the insane."

Melancholic Variety. — In this form the psychical disorder first attracts the attention. It is only in comparatively rare instances that the physician sees the first stage of the malady; but in inquiring into the history of paralytics, he will not unfrequently find that the first phenomenon that attracted attention was a state of marked moral and physical weakness or depression, with lowness of spirits, and incapacity, real or supposed, for any form of action; presenting every appearance of hypochondriacal melancholia. Even at this period there may sometimes be detected slight disorders of mobility, as stammering or hesitation in speech, or feebleness and trembling of the limbs. But these symptoms are overlooked, the melancholia absorbing the whole attention. The melancholic period may be very short, or it may have

lasted some time; but in all cases that are paralytic it disappears gradually, to give place to the normal condition. But this is very transitory; almost as soon as the signs of melancholia begin to disappear, the attentive observer may detect frequently the symptoms of an opposed condition. The patient experiences a sensation of exaggerated comfort; he was never so well in his life, body or mind; he begins to be unnaturally active, moving incessantly; he forms projects of which he would never have thought before, perhaps not absurd, and altogether out of accordance with his fortune or profession, but still quite opposed to his previous habits and tastes. He then either passes gradually into the true expansive delirium, or a fierce mania with predominance of ambitious ideas breaks out suddenly, after which his history is the same as that of the next variety.

The expansive Variety. — This is the most frequent form of the *debut* of general paralysis; and from the marked character of the symptoms clearly requiring immediate attention, it is more frequently noticed in its earlier stages than any of the others, and on this account has been erroneously supposed absolutely essential to the character of general paralysis. Those paralytics who present themselves from the outset with the expansive form of delirium, have been ordinarily men of active minds and habits, enterprising, rash, and generally of irritable, violent character, with much generosity. The expansive delirium is an exaggeration of this character; and so gradually does it sometimes sweep on, that the moment of actual outbreak is difficult of detection. The patient appears at first to be simply *more* active, *more* rash, *more* irritable, and by fits and starts more generous and lavish in his expenditure than before. By and by all this passes clearly beyond the normal state. The subject is in perpetual motion, takes no rest, cannot sleep, feels an exaggerated sense of power and general well-being, and conceives

projects of the most stupendous character, that must be at once carried out, all of which, if not quite irrational, are opposed utterly to his previous habits and tastes. He adopts excesses which are not habitual to him, passes an irregular and disorderly life, and commits acts which greatly astonish his friends, such as undressing in society, sleeping in the fields, and out of his own house, and perhaps committing petty thefts without any motive. He is possessed of boundless wealth or power with which he will perform the most unheard-of deeds. He will give away his property, and if he has none he will profess to do so. He is endowed with supernatural attributes, he is God's vicegerent upon earth, he is some mighty potentate. Acting upon some of these convictions, he commits an offence against society, himself, or property, which demands his seclusion, when the true nature of the case is readily recognized.

CHAPTER XXII.

DIPSOMANIA, OR DRUNKEN INSANITY.

This is a learned word which signifies an insane thirst, a moral insanity in regard to wines and liquors. A man is a drunkard who gets drunk at the festive board, who seeks occasions for getting conveniently drunk without interfering with his ordinary occupation, who takes a few days drinking at a time when he has plenty of money, and returns to his duties and employments when he has finished his superfluous cash and his "bender" or "spree," as it is called. Some men, on the other hand, get systematically and regularly drunk every day after dinner, some every night before going to bed, and will perform their daily duties with propriety and efficiency. Obviously they do not come under the head of insane drinkers, for they exercise a certain amount of self-control, a sufficient amount of restraint upon their appetites, not to allow the quantity which they drink to affect their aptitude for business, or driving a good bargain. The principal feature of this disease — that of insane drinking, or *dipsomania* — is, on the other hand, the absence or loss of the power of self-control or self-regulation. Persons affected with this form of *moral insanity* do not drink from the pleasure which the social board affords, but, on the contrary, will not unfrequently preserve a certain amount of decorum while in company. Neither do they drink for the pleasure

which the wine gives them; they will drink any kind of intoxicating stuff. Nor do they drink at a convenient time and place, and only occasionally; they drink as often as they can, and as much as they can; their craving for stimulants is incessant and uncontrollable: no considerations of self-respect, no regard to public opinion, or common decency, or domestic ties, or religion, or the certainty of impending ruin, degradation, or even the fear of death, can prevent their drinking till they can drink no longer. Such persons will often deplore their fatuity, their inability to control their appetites, and will say with tears in their eyes, as some have done, that if hell were yawning at one side of them, and a bottle of brandy standing at the other, they would drink, although the next moment they were to be thrown into the bottomless abyss. In a word, such persons drink because *they cannot help it*, and if they really *cannot* help it, they must be regarded as no longer responsible agents, — as, therefore, insane, and proper objects for being restrained and protected against themselves. The *loss of self-control* is, indeed, the most essential condition of almost all cases of insanity. The most constant symptoms of insanity are those referable to altered affections, perverted desires, and morbid propensities. In almost all cases of this variety of moral insanity there is a total disregard for truth. Such persons are singularly mendacious. They will resort to every possible device to procure stimulants, to excuse their conduct, to deceive their friends and medical attendant, will display an ingenuity and fertility in deceit which is truly marvellous. They will become faint, or be in agony with the toothache, or tic, or cramp in the stomach, or colic, etc., and represent themselves at death's door in order to get brandy, wine, or opium administered. They will pawn every available article of dress or furniture or jewelry. They will borrow from all and sundry. They will get whiskey smuggled home with

their clothes from the tailor or laundress. They will evade the most vigilant surveillance, and tell the most deliberate falsehoods in their attempts to deceive, solemnly appealing to God for their truth. When shut off from the ordinary sources of stimulation, they will sometimes resort to almost anything to relieve their craving. I have known a young and delicate lady, after being prevented getting wine or spirits, and deprived of lavender water and *eau de Cologne*, take creosote, vinegar, tobacco. Again, such persons will insist on a total denial of their habits of over-indulgence. They will very frequently disavow most solemnly having ever exceeded the bounds of strict temperance in their use of stimulants; and, if admitting at all that they have ever been the worse for drink, they will blame some other person or circumstance as the cause of it. Accompanying this disregard of truth, there are often other indications of moral perversion in the insane drunkard, such as extreme licentiousness, or a propensity to theft. The disease is frequently hereditary; and it will be found, on inquiry, that a grandfather, or father or mother, or one or more brothers, have died of delirium tremens, or have otherwise shown the fatal propensity. The constancy with which the hereditary predisposition to this disease is transmitted is most remarkable, and, in a vast majority of cases, can be traced either through the the maternal or paternal side of the family. To illustrate the truth of these remarks, I have analyzed the records of eighty-six of the cases of this form of moral insanity which I have had under my care, of which twenty were females and sixty-six males. Of the former one half presented natural peculiarities in their mental constitution, being either of weak minds, of very violent and uncontrollable passions, or subject to hysterical attacks of great violence, combined in some instances with great moral depravity. Of the males, thirty, or nearly one half, were

naturally of weak mind, or presented some mental peculiarity, such as silly vanity, general depravity of disposition, and, in some cases, considerable talent, but combined with eccentricity. In regard to hereditary predisposition, it is difficult generally to trace this in a public hospital, partly because many cases come in without any information regarding them at all, and partly because the friends, when they have friends, are generally very solicitous to deny or conceal the existence of an hereditary taint in the family. Of this malady there are three divisions, the *acute*, the *periodic*, and the *chronic*. Under the head of *acute*, I would include all those cases of uncontrollable drinking which occur to persons of previously temperate or regular habits, but in whom this insane craving has been generated under the influence of some accidental cause, — such as the novelty and excitement of a new sphere of duty, and the temptations of new associates and habits, all combining to lead to intemperance; or the depressing effects of some overwhelming calamity, or of some debilitating accident, or disease, or other agency. It is well known that the use of stimulants, begun or indulged in under any of these circumstances, has gradually merged in many instances into an inordinate and uncontrollable craving, and an insatiable and destructive use of them. Cases of this kind, if taken in time and treated judiciously and firmly, are generally curable without recourse to any step for depriving the patient of his personal freedom. *Periodic* or *recurrent* attacks of this disease are generally dependent upon some constitutional or hereditary peculiarity. Sometimes they occur at the critical age in females, and preserve a periodic form coinciding with the menstrual period. Sometimes they arise from injuries of the head. Cases of this kind are less easily treated than the acute, particularly where there is a hereditary predisposition. They hardly justify confinement. The uncontrollable impulse will come at

its accustomed time. Nor does this form of the disease interfere materially, in many cases, with the duties of life. Many individuals have distinguished themselves in literature or in professional or mercantile life, who have been known for a long term of years to retire periodically into the privacy of their own chamber, and, after indulging this morbid appetite to satiety for a week or two, in their voluntary seclusion, to reappear again on the stage of life, and pursue their usual avocations with credit and success. Such cases are perhaps rare, and more frequently it happens that the periodic or recurrent form gradually degenerates into the chronic variety of the disease, the intervals becoming shorter and the attacks longer, until the intervals cease altogether, and a chronic disease or a fatal issue ensues. It is the *chronic* form of this disease which is the least curable and most troublesome to manage. Here the craving for stimulants, brought on perhaps by indulgence and irregular habits operating upon a constitution hereditarily predisposed, becomes constant, insatiable, and incontrollable ; and the daily or hourly indulgence suffers only now and then a temporary check by illness caused by it, by attacks of delirium tremens, or outbursts of mania. I believe it is agreed by all parties, that this form of the disease can only be treated effectually by prolonged and complete abstinence from all stimulants.

CHAPTER XXIII.

LATE SUPPERS AND DREAMS.

We have alluded to the subject of the effect of late suppers on the nervous system already. A late supper is an unwholesome meal from whatever point looked at. The influence both of food and drink on the mind is acknowledged. A man may be said to think according as he eats and drinks. Everything which affects the circulation of the blood, or which increases or diminishes the nervous force, may and does interfere with, modify, or stimulate the action of the mental faculties. Dreams merely indicate a disturbed condition of the stomach or brain. I can best illustrate this subject by relating some curious dreams in point, dreams which have been occasioned by food which has disagreed with the digestive organs, or which have exercised a peculiar influence upon the nervous system, or which have been induced by food taken at an improper time, or which have happened when sleep has been indulged in immediately after taking food.

It is a curious fact that not only the kind of food may determine the events of a dream, but often, also, that the pursuits of the dreamer will tend to give his dreams some specialty. For example, we knew a medical man who after attending a lecture was very hungry, and, contrary to his usual practice, ate a hearty supper of rich fish with a stuffing composed of liver mixed with savory herbs and spices, and

some stimulating sauce. When he went to bed he had a rather dry and feverish skin, but he soon fell asleep and dreamt the following curious adventure: He said, "that he thought he was travelling in a very hot country, which abounded with a number of poisonous serpents, particularly the 'cobra di capella,' and that, having the opportunity to dissect some of them, he seemingly did so without harm to himself, until he proposed showing the structure of the secretory glands, which generated the poison. These he traced to the lower surface of the tongue, and when in the act of carefully pressing these glands to ascertain the color of the deadly fluid, a little of it squirted into his face and caused him great pain. The sense of his dangerous position awoke him, and he was highly gratified to find merely a little eruption on his nose and face, evidently caused by the rich food of which he had partaken the previous night," and he added that indigestion was invariably relieved in his own case by eruptions on the skin.

We select another instance to prove that particular food not only gives the specialty of the dream, but also in this case revived impressions of the past, and gave them all the vividness of reality. The person said, "The other night I was very hungry and was induced to eat supper, and added to the outrage of partaking of cold roast beef, the folly of eating about a dozen pickled onions. But as I felt very comfortable and had a long way to walk, there was not any misgiving that for so doing any great punishment would result. By the time I reached home it was at least two if not three hours after taking the unwholesome meal, and soon afterwards I went to bed. I felt somewhat uneasy, but it was not long before I fell asleep. Soon afterwards I dreamt that for some offence of etiquette I was doomed to eat 'sour-crout.' Now it so happened that this kind of pickled cabbage always caused me most painful nausea even when smelling it,

so that I had never been prevailed upon to taste it. Nevertheless, in the vision, it seemed that great pains and penalties awaited me, unless I abided by the unchangeable *fiat* of the judges. 'I fancied myself brought into a large room in the centre of which was the reeking *crout*, and what with its acid fumes and its fatty smell I was almost overpowered, and I experienced a sense of nausea and disgust. Still I made the effort to eat, but every mouthful which I endeavored to swallow was immediately rejected, and the painful and sickening sensation increased at every attempt to retain the abominable stuff. My situation was indeed pitiable; and the perspiration trickled down me, from the agony I experienced. It was a battle between *sour-crout* and the stomach, and the struggle was desperate; but the stomach conquered, and I awoke. My mouth was filled with acidity and the disagreeable taste of the onions, which together rendered my sensations most unpleasant. This condition of the mouth had evidently suggested the dream, and an early antipathy for fermented sour cabbage was reproduced with as much vividness as if the crout had been positively served up, and coercion had been used to enforce it being eaten." This individual was advanced in life and had not seen or smelt the sour-crout since his boyhood, yet its odor appeared as disagreeble to him in his dreams as it would have been in his wakeful moments. Here is a somewhat funny dream which occurred during not a late supper, but an after-dinner nap. A gentleman fond of good living, who invariably did justice to his meals, one day had dined at home with his family, and being very hungry, he had despatched slice after slice of some roast or boiled mutton, declaring that he had never eaten a more delicious, juicy, tender specimen of mutton; and as a proof of his sincerity, he refused all the *et-ceteras* of a wealthy citizen's dinner meal. After dinner he took his usual short *siesta*. He had been but a short time asleep,

when he began to laugh, and that so heartily, that it was contagious, and the risible chorus soon awoke him. Immediately all asked him what he had dreampt about that had so tickled his fancy. "Well," he replied, "I thought that I was at a public dining-table, at which there were many strangers. The tables were well supplied with fish, meats, and vegetables of all kinds in season, and I myself only partook of mutton. But what tickled my fancy in the first instance was, that I overheard the waiters speak of the different visitors, giving each the name of the 'dainty dish' he or she had preferred. There were Mr. Fish, Mrs. Steak, Miss Stew, Lady Cabbage, Mr. Rice, Miss Duck, Old Squire Bread, and numerous others distinguished by what they most enjoyed. I thought it curious that I had not been mentioned, and probably I should not have been, had not one of the ladies asked my name, 'O,' said the domestic addressed, 'you mean Old Mutton.' This audible reply was not considered rude, as he had feigned deafness. He thus became the topic of conversation. 'Old Mutton is a curious, eccentric personage,' observed a sly fellow, who with a most bewitching lisp proposed Old Mutton's health and 'let him know our admiration is excited,' said the speaker, 'because he sticks so lovingly to his family connections, and gives them the preference, as we all have witnessed.' All the company rose simultaneously, and turned towards me, then with mock gravity bowed, saying, 'Old Mutton's good health.' Whilst a few, not improved in their manners by what they had drunk, shouted out, 'Here's to jolly Old Mutton.' Then I opened my eyes and stared at them, and thus addressed the company: 'Thank you, my innocent lambs, but you bleat most discordantly.' The surprise that was depicted on every face looked most ridiculous, and I continued in a strain of badinage. 'Well, you pretty innocent, wool-covered creatures, I am very glad you are not foxes, or else "Old Mutton,"

"Jolly Old Mutton," would have had little chance of saving himself from *your* chops!" All this and much more had taken place during a doze of a few minutes. Here is another amusing dream, suggested by the nerves of taste which occurred to a lady, a friend of the writer, and which furnishes some speculative thoughts to the psychologist. Mrs. — had a slight cough, and one of her daughters brought her some barley-sugar to suck when in the act of lying down, or in case the cough disturbed her during the night. She had on the occasion we are about to relate, taken a piece of this sweet medicine into her mouth, and soon afterwards fell asleep with the confection undissolved. She dreamt that she was a very little girl, and that she was spending the evening in a juvenile party, at which, besides tarts and jellies, there was added an abundance of sweet-meats of the most delicious kinds. She felt superlatively happy, and, what contributed to ensure this satisfactory state, all her early associates were present. These friends of her childhood appeared the same laughing girls and boys, and were apparently undisturbed by care or annoyance of any kind. Yet she seemed to have some undercurrent of misgiving, for many of these *spectra* had been dead for years, and others she had not seen since their school days, when she herself was but a little girl. But these reflections did not affect her; for she fancied herself entering into all kinds of childish sports and pastimes with all the glee imaginable, and so she continued to laugh with those around her until she awoke with a smile on her features; and so brief was the whole period of the dream that her daughter had not left the bedside, for she had not been asleep more than a few moments. The explanation is, that as she was going to sleep the passing idea occurred: "I am like a little child, to go to bed with sweet-meats." This suggested to her mind the train of pleasing thoughts. For when the world was closed on her

unconscious senses, the soul thus untrammelled revived the scenes of her juvenile days, and called forth from the shadowy past her former associates, companions who had been forgotten during her maturity, with its hopes and fears.

CHAPTER XXIV.

THE USES AND ABUSES OF THE POPULAR NERVINES.

Particular kinds of remedies and medici · s, like other things, are at particular times all the rage, and are supposed during their brief period of popularity to be absolute curatives for the particular class of affections and ailments for which they are designed. Of course in this high-pressure age, when nervous affections and nervous diseases of all descriptions are the prevalent ills of the flesh, at least among all those classes who employ head-work, whether professional, literary, or mercantile, nervous remedies are in especial demand.

The danger is that when a particular remedy becomes thus popular, it will be used in excess, and so, in the end, prove detrimental. For instance, there was a time when preparations of mercury were all the rage, and when it was supposed that such preparations were actual panaceas or cure-alls. The consequence was that mercury was not only used properly, but misused and abused, until it has become a synonyme of all that is deadly as a medical prescription. So with bleeding, it was regarded as such a sovereign remedy at one time, that a physician who visited a patient without his lancet, was thought to be without the means at his command to properly practise his profession. And cupping was practised to such an extent, that the last dregs of the cup of human

life were in danger of being drained. So hydropathy had its run, and was esteemed at one time a sovereign remedy. So at the present time, which may be called the era of nervous diseases, there are certain fashionable nervines which are misused and which are abused to full as great if not to a greater extent than calomel, phlebotomy, and the cold-water pack used to be. The writer has recently had a nervous patient who, by the excessive use of belladonna (deadly nightshade) injudiciously prescribed by a friend, evidently with the best intentions, became so addicted to the inordinate use of the drug, as a nervous remedy, as to induce amaurosis and come near a total loss of eyesight. It is well known that chloral is a powerful hypnotic (or sleep producer), and wakefulness being one of the most distressing symptoms and incidents of nervous diseases, this remedy was naturally hailed as almost a benison from heaven, and became in literary and fashionable circles, in all cases where, either through ill health or over-indulgence, the nerves were unstrung, a universal resort as a prescription. The consequence was that the patients using this powerful remedy, not taking into consideration the reaction which inevitably follows, became incapable of any but an unnatural, artificially induced sleep, which only continued during the effect of the drug. In short, healthful, ordinary slumber became an utter stranger to their pillows, while phantasies and disturbing visions of all kinds continually haunted their nocturnal hours. There is another class of nervines, which have come into great use and celebrity within the past ten years, which deserve especial mention and consideration. I allude to the multitudinous salts of potassium, prominent amongst which are the bromides and iodides. This class of nervine remedies has of late been considered the great resource in the treatment of nervous affections, particularly in cases of cerebral congestion or irritation of the base of the brain and spinal column,

and in gastralgia and dyspepsia or inflammation of the stomach, either acute or chronic. Every patient suffering from hysteria, alcoholism or delirium tremens, melancholy, despondency, or venereal excesses, has been liberally dosed with bromide of potassium. While I do not wish it to be inferred that I entirely ignore this class of nervous remedies, or deny their utility and beneficial effects when judiciously administered, I still must insist that these remedies should never be administered alone, or in quantities which may be well termed excessive, as the invariable result of such improper administration is a depression of the nervous system, from which the patient seldom if ever rallies. Furthermore, it is a well-known therapeutical fact that bromide of potassium produces a permanent anæmia (or absence of blood) in the brain throughout the whole capillary and arterial circulation. Consequently, as must be evident even to the unprofessional reader, if its use be continued the result is continued until the brain, deprived of nutrition, loses its tonicity, and *softening* is the inevitable consequence. No more terrible affliction, of course, can befall a human being than this. Henceforth he wanders about a lack-lustre idiot, until death comes to his relief, much, also, to the relief of his friends. In 1812 aconite was introduced as a nervous sedative by Sir Benjamin Brodie. The peculiar action of this drug upon the nervous fibre is due to the alkaloid, which does produce a very rapid and tranquillizing effect on the brain, at the same time also producing a very depressing effect on the heart and circulation. In other words, the brief beneficial effect of the administration of the drug in quieting the brain is secured at the expense of the permanent depression of the nervous system. The administration of this drug, when persisted in, is almost sure to produce apoplexy. Where there is too much tone, excessive tension of the nerves is a result, and when there is too much depression, effusion is

pretty sure to follow. Even the small doses of this drug prescribed by homœopathic physicians finally induce the same results as in a more heroic practice. I will close this cursory discussion of the merits and demerits of some of the popular nervines by a word or two about the most common and popular of all the nervines (for a nervine it is to all intents and purposes, and not by any means perfectly harmless), to wit: Tea, one of the chief constituents of this beverage "which cheers but not inebriates," is tannin, a substance so powerfully astringent as to produce derangement of the liver and all the excretory organs. Hence the excessive use of tea is oftentimes at the bottom of the complete derangement of these organs. As a result, come spleen, melancholia, and nervous derangement. As for the other nervines, such as valerian, morphine, lactucarium, hyoscyamus, etc., they all have their devotees, and are too well known, both in their curative and pernicious effects, to need special notice. Suffice it to say that all the nervines are necessarily perilous agents, except in the hands of a skilful practitioner, who has made nervous affections a life-long study and specialty of treatment.

INSTRUCTIONS TO PATIENTS.

DR. PARKER, having for many years devoted his attention to the treatment and cure of diseases of the Nervous System described in the preceding pages, may be personally consulted from nine in the morning until six in the evening, daily, Sundays excepted, at his office, No. 4 Bulfinch St., Boston, Mass.

Cases can be treated by correspondence when a personal interview is impossible, providing the patients will minutely detail all of their bodily infirmities and mental disturbances, written in a simple and natural style, and in accordance with the unerring dictates of their own feelings. One personal interview, however, even with patients resident at a distance, is highly desirable when practicable, and will more than repay the patient the expense and trouble of a visit to Boston. The advantages of such a visit are apparent and manifold. A single visit in most cases will enable the Doctor to form an accurate opinion and note particulars which might be lost sight of in mere correspondence, particularly when a microscopic and chemical examination of the urine is absolutely necessary.

Patients not Resident in the City,

Who wish to transact their business through the mail, or by express, can have their necessary remedies sent to any address, or left at any railway station or coach office in the United States or Canadas until called for, carefully packed and securely sealed.

All communications must contain the usual consultation fee of five dollars; otherwise no notice will be taken of their application. A distinct name and address is necessary. Money can be forwarded by enclosing bank notes in a registered letter, to ensure their safety, by Postal order, drafts on New York or Boston banks, or by express.

The entire correspondence of the Institution comes under the personal inspection of Dr. W. H. Parker, whether addressed to the Peabody Medical Institute or Dr. W H Parker.

TESTIMONIALS.

By way of conclusion to this volume, the author is gratified to be able to place before his multitudinous readers a number of certificates and testimonials of his success in the cure of nervous diseases from grateful patients residing in different parts of the country. These testimonials have been unsolicited, and are such tributes as would be flattering even to the most distinguished members of the medical profession. Naturally enough, patients who have been cured of the most depressive class of ailments and ills to which flesh is heir, are somewhat warm in their expressions of gratitude towards their medical benefactor. The writer could fill a volume with authentic testimonials of a similar nature. Many of these testimonials are from prominent and influential persons in the various localities in which they reside, — from persons, in short, in all avocations of life.

AN ALMOST HOPELESS CASE OF NERVOUS DISEASE.

Perfect Cure. — A Grateful Testimonial.

Boston, May, 1873.

In June of the year 1865 the undersigned went to California and took charge of a large mining interest, in which his own fortunes, as well as those of several friends, were largely involved. The interest was in litigation, and for a year and a half was under the constant strain of intense mental anxiety, to say nothing of incessant bodily activity. My management was successful; but at the end of a year and a half I found myself

completely prostrated and broken down by excessive mental and bodily exertion. I was, in fact, the subject of one of the most serious forms of nervous disease, caused, I was told by the medical authorities, by congestion of the base of the brain.

To be thus suddenly arrested in the very midst of a lucrative and most promising enterprise, just when I had reached blue water, as it were, and all difficulties had been overcome, and doubts of success had been dispelled, — to be arrested, I say, at such an interesting juncture by an alarming nervous affection, which completely incapacitated me for any mental or bodily exertion whatever, was sufficiently discouraging and disheartening. It was like drowning, not only in sight of land, but with one's clutch on the shore. It was useless to struggle. I was obliged to succumb; and, by advice of my friends, I went reluctantly east to Philadelphia, where I was placed under the care of a most prominent physician. At this time my memory failed me, and I had lost the perceptions of taste, touch, and smell. My left side was paralyzed. I was constantly tormented by hallucinations and gloomy forebodings as well as by incessant pain, so that a nurse at my side was a necessity that could not be dispensed with by night or day.

As I showed no symptoms of recovery, I was taken to Saratoga, that a physician resident there, who was somewhat celebrated for his treatment of nervous affections, might be consulted. Perhaps also it was thought that the mineral waters might be beneficial. I remained six months at Saratoga, not only without amendment of my health, but I had grown worse instead of better.

Matters had now become so serious that immediate recourse to the best medical advice and ability to be found in the city of New York was deemed the best step. I was soon under the care of the most noted specialist in nervous disease in the commercial metropolis. After a course of treatment in which electricity formed a prominent feature, my friends were notified that my case was hopeless. There was life left in me, it is true, but the verdict was that there was no hope. Henceforth I was to be a burden to myself and my friends, until death came to my relief.

At this critical point an eastern gentleman, who had business with one of my friends in New York, happened to be informed of my hopeless condition. He called to see me, and strongly advised that I should be taken to Boston for a personal interview with Dr. Parker, the consulting physician of the Peabody Medical Institute in that city. He was told that I had been taken from place to place for medical treatment several times already without receiving the least advantage, and that another removal to a distant point would probably result in another failure to obtain relief, and would therefore be worse than useless. But the eastern gentleman, being of a sanguine temperament, would not give my case up so, and finally prevailed upon those who had me in charge to take me to Boston.

ALEXANDER E. RAITT.

After a careful examination of my case, Dr. Parker said that he could afford me partial relief, but he did not speak encouragingly in regard to a permanent cure. Under no circumstances the doctor informed me could I expect much mitigation of my sufferings from his treatment in a less time than at the end of six weeks. Even partial relief was worth more than a six months' stay in Boston, to say nothing of six weeks. Suffice it to say that I found myself at once subjected to a *new* treatment, entirely different from anything which I had experienced at the hands of my previous medical advisers. It began to tell on my shattered nerves *at once*, working like a charm.

At the end of two weeks the gentleman, who had originally advised my recourse to the doctor, called to see me in my new quarters, and under my new treatment. Sensation had already begun to return to my left side. I was recovering the use of my lost senses, and warmth and motion were taking the place of partial paralysis. The gentleman gave me a look, which said louder than words — "I told you there was hope and cure for you." In fact I felt health dawning anew in me. With returning strength came hope and confidence, which reinforced the treatment and medicine wonderfully. The doctor acknowledged that he had underestimated the recuperative power of my system.

At the end of the six weeks, which he had mentioned as the earliest date of even a partial recovery, he assured me of a perfect cure. His assurances were made good by the event. I am at the date of this writing a well man, and have been for several years. Indeed my present occupation requires vigorous health, and I am fully equal to it. I frequently indulge in gymnastic exercises, and am noted for muscular strength. During my illness my weight, which is now from 175 to 200, fell to 120 pounds. I am induced to write this letter by a sense of duty to others who are suffering as I suffered. It was this sense of duty, combined with a feeling of intense personal regard for my healer and benefactor, Dr. Parker, which has prompted me unsolicited to pen these lines as a guide to all prostrated with severe nervous disease. I refer to Adjutant-General Cunningham and Judge Abbott, who are personal acquaintances.

ALEXANDER E. RAITT.

SUFFOLK, ss.

AUGUST 16.

Then personally appeared the above-named Alexander E. Raitt, and made oath that the above statement by him subscribed is true.

Before me,

T. F. NUTTER,

Justice of the Peace.

SPRINGFIELD, ILLINOIS, May 9.

DR. PARKER:

Having been under your treatment for the past three months for epilepsy, I take pleasure in saying, in gratitude for kind and skilful attention, that I have derived such essential and marked benefit from your skilful practice as to make me certain that I am cured; at any rate the symptoms of the disease have entirely disappeared, I feel confident not to return.

J. S. K.

When a person is cured of a disease which, though not generally deemed incurable, is yet manageable only by the most skilful treatment and peculiar remedies, it is his duty to those similarly affected to make it known. For a long period I suffered from chorea, or St. Vitus' dance. The action of my brain was disordered, and my mind was decidedly impaired. My feelings were easily excited and my temper was fretful and irritable. Hallucinations of sight and hearing also troubled me. My sleep was disturbed by disagreeable dreams. These mental troubles were accompanied by the usually disorderly muscular contractions. Acting on the advice of a friend, who, some years ago, was cured by your treatment of a like disease, I too placed myself under your care, and, after two weeks of constant treatment, was radically cured, and the constitutional disturbances entirely disappeared.

I am confident that others similarly affected with myself, by placing themselves under your care, and following your advice, will be rewarded with like benefit.

G. W. P.

RICHMOND, VA., March 3.

DR. PARKER:

Dear Sir, — Gratitude to you for a perfect restoration to health, society, and business, leads me to write you this letter, hoping that you will make it public, so that others similarly affected with myself may know to whom to have recourse for relief. Owing to youthful indiscretions and excesses, I was a sufferer from constant depression of spirits and *mental anxiety* of the most disheartening nature. Life was a burden, and I found myself the victim of hypochondriasis in the very prime of manhood. I found myself also contemplating death as the only refuge from the deep gloom which clouded my life and prospects. At this critical time I was directed to you, and, in a few weeks, under your advice and remedies, I became well again, with the buoyancy of spirits natural to health and mental and bodily vigor.

J. T. S.

HARTFORD, CONN., Jan. 27.

FITCHBURG, Dec. 29, 1872.

TO THE PUBLIC:

For the good of those affected with *paralysis agitatus*, or shaking palsy, I am pleased to state that Dr. Parker radically cured this affection in myself, it being the result of an exhausting disease from which I had suffered.

F. N. B.

SPRINGFIELD, MASS., June 7.

DR. PARKER:

Dear Sir, — Under your skilful treatment and remedies, and by strictly conforming to your advice and the hygiene recommended by you, I was completely rescued from the horrors of a shattered nervous system, and made once more capable of complete self-control, so far as the accursed habits are concerned, which drove me almost to suicide.

Gratefully yours,

A. P.

TORONTO, CANADA WEST, April 3.

DR. PARKER:

Dear Sir, — I was attacked with what was undoubtedly incipient softening of the brain. Good luck led me to have recourse to you. The terrible infliction was arrested by your remedies, and I am now enjoying good health, and have the use of my mental faculties. It is due to you and the public that I should thus signalize your skilful and successful treatment of my case

R. D.

BUFFALO, N. Y., Feb. 12.

FRIEND PARKER:

Arduous and unremitted professional labors for a course of years, almost without recreation, had reduced me to such a state of nervous depression that I was rapidly nearing the dread goal of insanity and complete mental imbecility when I put myself under your treatment. That I have escaped the calamity of a permanently deranged mind, I owe to your remedies, and to the regimen which you advised.

Gratefully yours,

C. E. L.

WORCESTER, MASS., June.

DR. PARKER:

It is with feelings of intense gratitude that I find myself, through the use of your remedies, once more capable of sound, natural sleep. Previously to my application to you for relief, my memory had become impaired. I could not sleep; or, if I did, I awoke in a state of excitement and alarm, sometimes in horror. I could not get any sleep for hours after I went to bed. At length this constant insomnia, or wakefulness, reached a point where relief had become an absolute necessity. I could no longer endure the dreadful illusions, hallucinations, and nocturnal visions which haunted what should have been hours of repose, but were not. Learning of your skill and success in the treatment of nervous affections, I had resourse to you, feeling that your advice was a last resort. Nor did it fail me. A few weeks of conformity to your directions, with the use of your prescriptions, have restored me to perfect health.

E. W. B.

DR. PARKER:

Dear Sir: — I take great pleasure in saying that your professional efforts in my case of paralysis of the left arm resulted in a permanent cure, and were in the highest degree satisfactory.

I am yours, very truly,

R. H. W.

SYRACUSE, N. Y.

DR. PARKER:

Dear Sir: — For several years I was the victim of alcoholism, which had been originally induced by convivial habits, and the temptations set before me by the society of numerous and hospitable friends. Almost before I was aware of it, owing to a singularly sensitive and impressible nervous system, I found myself tormented by all the distressing and appalling symptoms and incidents of the above disease. I would have given all I possessed on earth to be relieved from the sufferings and nervous agitation which ensued. I feel that it is to you I owe my final extrication from the gulf of despair, in which a disposition naturally social and too easily yielding to convivial temptations had involved me. Please accept my grateful acknowledgments for the thorough relief which your skill has afforded me.

S. R. C.

HAVERHILL, N. H.

DEAR DOCTOR:

After having been extricacted from a gulf, into which one has been plunged by his own youthful follies, and the excessive indulgence of his passions and appetites, it is not pleasant to recur to the misery and despair which you have alleviated in my case. But I should be wanting to myself, to you, and to society, if I was altogether silent after having been the subject of your skill and care, until I have been relieved of the consequences of my follies. You have given me back the manhood which I had lost and forfeited. Why should I indulge in the gloomy details of my case with which you are so well acquainted, and which others reduced to a a like strait can readily imagine? Suffice it to say that I am cured, and sit clothed and in my right mind.

With the utmost esteem I subscribe myself,

Yours ever,

J. W. W.

BOSTON, July 15.

WEST CHELMSFORD, Feb. 25.

DOCTOR PARKER:

Dear Sir: — Yours of yesterday is at hand and with pleasure I would hasten to reply. When I first visited you one year ago last January, I

was a used-up man, both mentally and physically, and it was with much pain and suffering that I performed my daily labor, and my nervous system was in a very bad condition. It was with much difficulty that I could *sit still* and read a paper in the evening, and it was a *common occurrence* to lie awake in bed until eleven, twelve, one, and two o'clock in the morning, and then I would sometimes get up and stand on a stone doorstep, or go out into the *snow barefooted* and get chilled so that my nerves would get quieted down so that I could sleep. My head also troubled me very much.

But now, by the blessing of God and your *very skilful treatment*, I feel like a *new man*. I can now sit and read without suffering from nervousness, and to use an old saying, "I can sleep like a pig." I often say to my wife that I never enjoyed sleep so well in all my life as at the present time. And in every respect I can *truthfully* say I am a *hundred per cent* better than I was one year ago, and a more healthy man than I was fifteen years ago.

I would most earnestly recommend you to all suffering from nervous disease as a *true gentleman* and a *skilful physician*.

Most respectfully subscribed,

A. W. PARKHURST.

COMMONWEALTH OF MASSACHUSETTS.
MIDDLESEX, SS.

CHELMSFORD, April 7.

Personally appeared A. W. Parkhurst and made oath to the within statement.

Before me,

JONAS J. HOYT, *Justice of the Peace.*

FOXBORO', July 14.

DR. PARKER:

Dear Sir: — Words will never express my gratitude to you for the help you have rendered. I feel as though I was a new man. I did not gain flesh while in the shop; have been out a week and gained four pounds, and am in most excellent spirits. I have medicine enough to last four days, please send another supply on receipt of this.

Yours truly,

FRED N. B.

A Great Physiological and Medical Work.

THE SCIENCE OF LIFE; or, SELF-PRESERVATION.

BY W. H. PARKER, M. D.,

Is now so well known and highly appreciated by the medical profession and the public at large, that it needs no commendation from any quarter. The sale of the work has been literally immense already, although it has not been before the public two years as yet. It has been purchased and read by all classes of society, and the demand for it is constantly increasing, so that two men are constantly employed in mailing it to all parts of the country, and in fact to all parts of the hemisphere. It has been translated into Spanish, and published in Havana, Cuba, where it has had a most extensive sale. These facts in regard to the circulation of the *Science of Life*, speak volumes in its praise. The author of it has innumerable testimonials from multitudes of persons, to whom it has been a guide to recovered health and happiness out of the Slough of Despond and settled gloom, consequent upon vicious habits and practices, which even threatened in some extreme cases to result in suicide or self-murder, that saddest refuge from the ills and miseries of life. The extrication of a single human being from such a fate by the perusal of the *Science of Life*, is sufficient compensation to its author for the labor of its composition. And *he knows*, from the frank confession of a number of his patients who are now well and in the full enjoyment of life and its active pursuits, that this work has been directly instrumental in saving their lives.

The *Science of Life* was originally published at the request of a large number of its author's professional friends, and it has proved that its title of "Self-Preservation" is most appropriate. It has already, in the space of two years, gone through ten large editions, and a new edition is in course of preparation, with important revisions and additions.

The subjoined table of contents sufficiently explains the scope and character of the work:

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