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# OBSERVATIONS

ON

# MENTAL DERANGEMENT

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# MENTAL DERANGEMENT

By ANDREW COMBE M.D.

EDITED AND ABRIDGED

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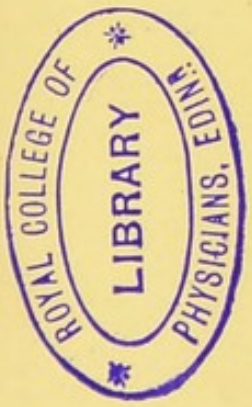


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TO

JOHN RITCHIE FINDLAY

A FRIEND OF THE AUTHOR

This Edition is Dedicated

BY

THE EDITOR

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# PREFACE.

Dr Andrew Combe published his *Observations on Mental Derangement* in 1831.

The work was well received both by the medical profession and by the public. Dr Abercrombie pronounced it "full of sound observation and accurate thinking, and likely to be very useful."

The first edition was soon exhausted, but Dr Combe, though anxious to meet the demand for a second edition, was never able to do so, in consequence of infirm health.

His executors entertained the hope that they might be able to fulfil his desire, "so that copies of this valuable work should no longer be sought for in vain." The late Sir James Coxe—Dr Combe's nephew and one of his executors—often expressed his regret that a book so full of strong common sense was out of print, and it was long thought that he would undertake the task of bringing out a fresh edition. Sir James was of opinion that any republication of the book should be in a greatly abridged form, believing that its usefulness would so be increased. He had not leisure for the work which this involved, and before his death it was resolved that I should attempt to make such an abridgment. This attempt I have now made.

When Dr Combe wrote his *Observations on Mental*

*Derangement*, the debate as to the soundness of the doctrines of Phrenology was very active. Dr Combe's faith in their soundness was complete, and these *Observations* were an application of the principles of Phrenology to the elucidation of the nature, causes, symptoms, and treatment of insanity. In making this application at that time, controversial and expository matter was almost necessarily introduced—largely relating to points which do not occupy the position of principles. In this edition all such matter has been left out, because the soundness of the fundamental principles of Phrenology may be considered as no longer in dispute, and because the soundness or unsoundness of many things, which were held to grow out of those principles, is of no importance in the study of insanity.

By cutting out this controversial and expository matter, the work has been greatly shortened. But it has also been shortened in other directions. The aim, indeed, has been to abridge it as much as possible, and I have been left free to do this in the way I thought best. The abridged *Observations* still rest on the essential principles of Phrenology and illustrate their value. The Phrenological nomenclature, however, has been almost entirely disused.

I have endeavoured to prevent the numerous excisions from being felt, and to make the reading smooth, but I have not done this by introducing new matter. Everything in the work still belongs to Dr Combe. There was a temptation to give comments and views of my own in footnotes, but they have not been given because they were not really needed. The *Observations*, so far as they are here reproduced, are both in matter and style

substantially the same as they were when first published fifty-five years ago.

To a large extent they are as much calculated to be useful now as they were at that time. If I am right in this, I can pay no higher compliment to Dr Combe's sagacity. It is a compliment, however, which has fallen richly on him in connection with his other works. His *Physiology* and his *Management of Infancy*, for instance, still command a steady and considerable sale. The first has reached its 16th edition, and the second its 8th; and new editions of both are in preparation. Such a thing as this could only happen to a writer whose sagacity had led him to avoid ephemeral opinions, and had kept him close to the enduring verities of science.

When Dr Combe wrote, it was more necessary than it is now to insist that disorder of the mind shall always be regarded as disorder of the brain, and that slightly marked or transitory mental disturbances are as truly states of cerebral disorder and unsoundness of mind as are those mental disturbances which are deeply marked or permanent. The acceptance of these views necessarily leads to benevolence in the treatment of the insane; and their advocacy by Dr Combe, both in this and in his other works, had a large influence in shaping the existing Lunacy Laws of England and Scotland and in giving a wider and truer meaning to the term insanity. Correct views as to the nature of insanity have led also to the including of many persons among the insane who were not included among them when incorrect views prevailed. An apparent increase of the number of the insane in the country has been the result of these changes of the

law and of medical and public opinion—that is, an increase of the number of persons officially recognised as insane. Dr Combe, however, is at pains to show that it is neither necessary nor desirable that the State should take cognizance of every person who, from a scientific point of view, is correctly described as of unsound mind; and what he says on this subject merits attention in present circumstances.

Dr Combe discusses the causes and symptoms of insanity in a way which is useful both to the public and to the medical profession, and he shows how men may become the intelligent guardians of their mental health. He deals with points of special importance when he speaks of the nature of what are called the moral causes of insanity, and of the propriety of considering how far a person's condition is a departure from what is normal to him as an individual, when determining whether he is or is not insane.

In no part of the work, however, is Dr Combe's wisdom better disclosed than in that which refers to treatment. As regards the nature and aims of what is known as the moral treatment of the insane, the importance of active work as a means of curing insanity, and the impropriety of placing persons in asylums who do not require the discipline or restraints of such establishments, he anticipates and gives support to the most advanced views of the present time, both in their medical and in their benevolent aspect.

Dr Combe occasionally uses terms which have fallen out of use. I have changed these when I thought the change necessary or desirable.

Some may think that there are needless repetitions in the book. With reference to this I beg to point out that every seeming repetition in it is not really a repetition. Careful reading will often discover a newness, where newness appears at first sight to be absent. It happens, however, that Dr Combe thought repetitions desirable. In concluding his work on *The Management of Infancy*, he says:—"In some places I have insisted with perhaps wearisome iteration upon truths and principles which, broadly stated, meet with almost universal assent, and which therefore may seem to be familiar to everybody. But I have done so intentionally, from having often observed how wide a difference there is between knowing a thing as a fact, and being impressed with the importance of turning it to practical account in the affairs of life."

I have to acknowledge indebtedness to several friends for reading the chapters in proof.

A. M.

34 Drummond Place, Edinburgh,
*June* 1887.

# OBSERVATIONS

ON

# MENTAL DERANGEMENT.

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## CHAPTER I.

### GENERAL REMARKS ON THE FUNCTIONS OF THE BRAIN AND NERVOUS SYSTEM.

As every organ in the animal economy performs a separate function, so also every separate function is executed by a distinct organ. Wherever, therefore, a plurality of functions is found in connection with any part, that part may safely be held to be compound, however simple it may at first sight appear.

Granting this to be true, it follows, that whenever we discover in any animal either a new organ, or an addition to one we are already acquainted with in other animals, we may safely conclude that a new function, or some modification of one already known, remains to be ascertained; and that, on the other hand, when we meet with a new function, or a modified state of an old one, we may rest assured that a corresponding organ or additional part exists, by which it is executed.

In accordance with this view, it is observed that every

nerve possesses a constitution having an express relation to the objects which it is destined to fulfil. The optic nerve is constituted for the transmission to the brain of the impressions which light causes on the terminations of that nerve in the retina of the eyeball; and the acoustic nerve for the transmission to the brain of the impulses of sound-waves on its terminations or end-organs within the ear. The sensory nerves, again, are expressly related to sensation, and the motor nerves to motion. No nerve can serve any other purpose than the one it is designed to serve. The optic nerve, if ramified in the ear, would be insensible to sound-waves; and the acoustic, if ramified in the eye, would be insensible to light. In the same way, the nerves distributed to the heart, the stomach, and other organs, are adapted to transmit to the brain the impressions made on them by special stimuli.

The brain being the centre to which all external or internal impressions must be conveyed before sensation can take place, and from which all volition proceeds, every nerve which serves to convey these impressions to the mind, or to transmit the commands of the will from it to a distant organ, necessarily requires to be in free communication with the brain, either by direct origin from some one of its constituent parts, or by the medium of the spinal cord. Accordingly, if we destroy this communication by artificial means, by dividing or tying the nerve for example, the progress towards the brain of the impression arising from irritation of its extremity is interrupted, and, the action of the former being requisite for perception, no sensation takes place. In like manner, if we divide the motor nerves going to a limb, they lose the power of transmitting the commands of the will to the parts beyond the obstruction; and, however

urgently the mind and brain may require the activity of such parts, they remain motionless. To effect sensation, therefore, or the perception of impressions made on the extremities of the nerves, a consentaneity of action, and a freedom of communication between them and the brain, are requisite.

These remarks apply to all the nerves of animal life, internal as well as external. It is always the brain, and not the nerve itself, which feels the irritation, of which the nerve is only the recipient and conductor. And, on this account, the action of the brain is modified by every change in the condition of the nervous fibres, ramified on every part of the body. If a piece of ice be put into the hand, an impression is made on the nerves, which, transmitted to the brain and exciting a particular action in it, gives to the mind a sensation of cold, which is referred to the hand. But suppose that the action of the brain were suspended for a little, by a faint or by stunning, and that a heated bar of iron were substituted for the ice, the nerves remaining equally entire, no sensation would reach the mind till, by the returning action of the brain, consciousness returned, when, a very different excitement taking place, the hot iron would give to the mind the feeling of heat. The brain, therefore, is always modified in its action by the state of the nerves, so long as the natural communication between them remains uninterrupted. But if this be cut off, the consentaneity of action ceases. Thus the nerves which, ramified on the stomach and excited in a peculiar way by certain conditions of that organ, give rise in the brain to sensations of hunger (referred by the mind to the stomach itself), cease to originate any such mental state when their connection with the brain is destroyed. In the same way, the irritation which is produced by the ingestion of acrid substances into the stomach, and which

is conveyed by the stomachic nerves to the brain, there to give rise to sensations of heat, pain, and sickness, also referred by the mind to the stomach, ceases to induce any such consciousness when the nervous channel of communication is interrupted; so that the stomach may then be actually eroded, without the mind being aware of its condition. And, *vice versa*, certain mental emotions, and certain states of the brain, which, when the communication is unimpaired, affect the stomach, and cause it to evacuate its contents by vomiting, produce no such effect when the nervous chain is completely divided and the transmission of the nervous influence prevented. The reciprocal communication and influence are therefore essential to the exercise of the functions of both brain and nerves.

The joint action with the nerves of that part of the brain which takes cognizance of the impressions made upon the extremities of the nerves being requisite for sensation, or, in other words, the brain being truly the seat of sensation, it happens, that if, by any internal cause, such as disease, that part of it which is in connection with a nerve be excited in the particular way in which it is excited by the natural stimulus from without, the same sensation will arise in the mind as if the external stimulus were actually present and were making its usual impression on the nervous filaments; and a belief in its real existence will accordingly take place, unless the mind be informed by other faculties of the source of the error. Such is often the origin of the odd feelings—of the cravings of hunger without real want of food—of the creepings under the skin—of the voices whispering into the ear—of the deceptions of sight—and of the all-pervading smells and tastes so often complained of in insanity, and sometimes also by persons in sound mind—the only difference being, that the former believe in the existence of an

external cause to excite these sensations, and that the latter perceive their morbid origin.

In a state of health the stimuli to which the nerves are adapted, and of which they transmit impressions to the brain, are so perfectly in harmony with their constitution and structure, that their action is carried on almost unconsciously. But if disease attack the organ on which they are ramified, the state of things instantly changes. The nervous filaments, stimulated perhaps to excess by great irritation in the part diseased, then transmit to the brain the same excess of stimulus which they receive, and rouse into inordinate action the cerebral part with which they are more immediately connected. And if the irritation be of long continuance and considerable severity, and if the organ be one intimately connected with the brain by a multiplicity of nerves or by the importance of its function, the inordinate cerebral action thus induced may so far affect the functions and structures of the brain itself as to excite in it a morbid action, which will then go on independently of the cause which produced it.

As, then, every single part is capable of performing only a definite function, and every system of nerves arises from corresponding nervous masses performing functions analagous to its own, it follows, that the higher we rise in the scale of living beings, and the more numerous the functions with which each is endowed, the more perfect and the more complicated will their organisation become. So that, when we consider the number and perfection of the senses, and the numerous propensities and powers which man possesses in common with many animals (which have distributed among them what are united in him), and the various high moral and intellectual faculties of which he may be said

to be exclusively in possession,—the natural and irresistible inference is, that he must have a brain and nervous system, complicated and perfect in structure, in proportion to the higher perfection and more numerous endowments which the Creator has bestowed upon him.

Some of the lower creatures have individual parts of the brain more highly developed than man, but they have, at the same time, individual senses more acute, and individual instincts more powerful, to correspond to these parts. But no animal has a brain consisting of so many parts, or so fully and perfectly developed, as that of man; and no animal possesses so many powers of intellect and of feeling as he does. The simple fact of mind being unable to manifest itself, except through the instrumentality of the brain, is in one sense sufficient to prove this; for, if the human brain did not possess parts which are not to be found in the lower animals, it would be able to manifest those qualities only which man and the lower animals have in common; just as without eyes man could not enjoy vision, nor without ears hearing, however perfect the internal or immaterial constitution of his mind might be.

A multitude of well known facts have forced the conviction upon physiologists, that the brain is the organ of the intellectual and moral faculties and of the various animal appetites,—and that none of these can act, or be acted upon, except through the medium of a corresponding change in their cerebral organs, just as the eye must always be affected before light can transmit its impressions to the mind. But it is noticed that different passions and intellectual powers appear in succession, and, therefore, each must have a part of the brain or organ of mind appropriated to its own operations;

for, if one organ served for all, the immaterial principle remaining the same, all ought to arrive at maturity equally early, which we know not to be the case. Thus, hearing, sight, taste, touch, and smell, having each an appropriate organ, may be conceived, and indeed are known to appear in some animals at one time—and in others in succession, according to the simultaneous or successive development of these organs. But if we suppose them all to act through the medium of a single organ, it then becomes difficult, if not impossible, to conceive how perfect vision should be possessed a month or a year before the sense of hearing or of taste is developed. The case of the mind and brain is perfectly parallel. We see the perceptive powers, for instance, so invariably in full activity long before those of reflection begin to operate, that no rational man would seriously address an infant in the language of abstract reasoning; and accordingly the art of the teacher consists in adapting his instructions to the expanding powers of the pupil's mind; and he who would follow the same method with all children, or with the same pupil at different ages, would be justly held as deficient in judgment. The same remarks apply to the successive appearance of the propensities and sentiments. Plurality of organs will alone explain the difficulty.

Pathology also is abundant in proof of the plurality of cerebral organs. Partial idiocy,—partial injuries of the brain, which do not affect all the mental faculties,—insanity affecting one or two faculties,—cases of brain disease followed by loss of memory of names without apparent deficiency in other respects, are all at variance with the unity and in harmony with the plurality of cerebral organs.

Some persons object to the brain being considered as

an aggregate of parts performing distinct functions,—holding that this is impossible, because there is no visible partition separating them from each other; but the same objection having been erroneously urged against nerves, now demonstrated to be compound, shows how little weight ought to attach to our notions of what ought to be, when placed in opposition to what is. If we knew intimately the structure of the brain, and were minutely acquainted with the capabilities belonging to such a structure, and, founding on these, could show that two parts of the brain, lying in contact with each other, could not possibly perform different mental functions, then the objection would have weight. But if experience shows that the fact is the reverse, we are bound, in due submission to Divine wisdom, to believe that the respective organs are fitted for the perfect performance of the functions for which they were destined. There is also, in point of fact, a greater similarity between the different mental functions than between sensation and motion: and yet we find the nervous fibres performing the two last inextricably intermixed in apparently a single bundle. In many nerves there are different nerve fibres lying side by side, which subserve quite different functions. This is notably the case in the spinal nerves, where motor sensory, and other fibres lie side by side in the same sheath; and the difficulty is not greater in regard to the brain than it is in regard to them; for it was inability to distinguish any boundary between their constituent parts that prevented their separate functions being sooner demonstrated. But the reasons which led to their being viewed as compound, existed in all their force long before the fact was ascertained.

The plurality of cerebral organs, therefore, is, properly speaking, not a matter of doubt. It is only the number and uses of the component parts that remain

under discussion, and physiologists still differ as to these.

Anatomists have failed in their investigations, because structure alone does not reveal function; and, even if it did, that of the brain is almost as little known as the uses which it subserves. All the nerves, for example, present a similarity of structure and a sameness of appearance, and yet all have uses totally different; and, on the other hand, although we are familiar with the structure of the spleen and of the thyroid gland, and although experiment has taught us something as to the probable functions of these organs, still our knowledge of their use is very imperfect.

Metaphysicians have made the attempt in another way, but they have failed to trace the connection of the mind with its cerebral organs, because consciousness, from which they drew their information, does not even inform us that we have a brain at all, much less what are the number and uses of its parts.

Medical men have failed in the same inquiry, because injury or disease of any part of the brain, however small, stirs up morbid sympathies and constitutional disturbance, in proportion to the original irritability of the patient, and not to the extent of the local injury; and besides the ability to observe what mental faculties suffer from disease of particular cerebral parts, presupposes an acquaintance with the number and nature of these faculties and with the situation and limits of these parts, or, in other words, with the very things we are in quest of. Physiologists have failed in their experiments on the brains of the lower animals from precisely the same cause.

The fundamental principles of a true physiology of the brain, are—

1. That the mind is endowed with a plurality of innate faculties.

2. That each of these faculties manifests itself through the medium of an appropriate organ, of which organs the brain is a congeries.

3. That the power of manifesting each faculty bears a relation, *cæteris paribus*, to the condition of that part of the brain with which it is more immediately connected.

## CHAPTER II.

### MENTAL DERANGEMENT A SYMPTOM OF CEREBRAL DISEASE.

MOLIERE and many other witty men have made themselves merry at the expense of the medical profession, and have successfully ridiculed the uncertainty of opinion and inconsistency of doctrine for which medicine has long been proverbial; but, when their own lives have been in danger, most of these satirists have nevertheless had recourse to professional assistance, with an alacrity that testified to their serious belief that the professors of the medical art are in possession of an extent of ascertained knowledge, which, if well applied, would give their patients a better chance for their lives, than they would have if left to themselves. The conclusion to be deduced from this is worthy of attention; for it leads to important practical results. It is, that the inconsistency complained of does not arise from the absence of invariable and permanent principles, according to which the various functions of the human body are carried on with the same regularity and precision observed in the phenomena embraced by other sciences, and according to which they ought to be treated when diseased. The inconsistency springs from our imperfect acquaintance with these principles, and with the numerous modifications which they undergo from the action of the many disturbing influences to which the body of man in the course of life is exposed. Consequently,

in proportion as our knowledge becomes more extensive and accurate from more careful observation, we may reasonably expect to see the contradictions and inconsistencies of opinion, which have hitherto thrown obloquy upon medicine as an entirely conjectural art, gradually disappear and give way to sounder and more useful views.

In pursuing medical inquiries, it is encouraging to feel assured that the mental and bodily constitutions of man did not come from the hands of the Creator undefined or imperfect, and that all the animal functions are regulated by fixed and determinate laws, and have fixed and determinate relations to every class of external objects. Because, if this view be correct, and if the causes of disease and the agents employed for their prevention and removal have thus definite properties, and act upon a system regulated by definite laws, then medical science must necessarily advance in proportion to the progress made in the discovery and appreciation of these and of their relations to each other; and every error which we discover, instead of deterring us from pursuing our investigations, becomes a new beacon to guide us past some of the dangers to which we were formerly exposed. Whereas, if medicine were an art without principles permanent as Nature herself, its advancement would be as hopeless a task as ever attracted and deluded the ingenuity of man, and its cultivation ought to be abandoned for ever, like the dreams of the alchymists and their searches after the elixir of life and the philosopher's stone.

A conviction that medicine rests upon fixed principles, which only require to be ascertained and applied to give it a proper place among the sciences, is nowhere more valuable than as applied to the subject of the diseased manifestations of mind. It is, for instance, an established

principle in pathology that every derangement of function is always accompanied by a disorder either in the structure or in the mode of action of the organ which performs it, and that without the removal or cure of this disorder the function cannot be restored to its healthy state. Acting on the faith of this law of the animal economy, we almost instinctively, on being called to examine a patient, begin by finding out what functions are chiefly deranged, and through them go back to the organs which execute them, and there, by local and other symptoms, seek the kind of disease which has caused the disturbance of function; and in a great variety of cases, by following this procedure, we succeed in determining the seat and nature, and the method of cure, of the disease which we are called upon to treat.

But when we look to the notions and the modes of proceeding which have long prevailed in regard to insanity, and which are even yet too frequently met with, we see a melancholy reverse of the picture. From ignorance of or from want of confidence in the fact, that the principles of medicine are immutable and permanent in their operation, our predecessors were contented to look upon the disjointed phenomena of mental derangement as the inscrutable consequences of an affection of the immaterial principle of mind, or as a particular dispensation of Providence, which they could not be expected either to understand or to remedy; and, accordingly, while this view continued to influence their practice, all sorts of incongruous and barbarous measures were adopted against the miserable patients.

But had the law already referred to, of the constant connection between the state of the organ and the mode of its function, been familiarly known and the universality of its application confided in, it would at once have led the medical observer to investigate the condition of the organ whose function it is to manifest the mental

faculties, to look to it for the seat of the morbid action, and so determine its nature and treatment on rational, experimental, and consistent grounds.

Knowing nothing, and in this world having no means of knowing anything, of the nature of mind, as it exists independent of and separate from the organisation with which we observe it to be connected during life, we can only study the capacities and modes of action which it exhibits to us in its combined state; and to attempt anything beyond this would be not only unnecessary, but utterly fruitless labour. We cannot reach the principle of mind to modify its qualities or manner of being. We can only reach it as acting through the medium of and influenced by its material instruments, and consequently all attempts to improve its powers, and to extend its limits, must be conducted with a constant reference to the organic conditions under which it acts, otherwise they will to a certainty fail of success. During life, indeed, the closest relation obtains between the mode of action of the various mental powers and the condition of their respective organs, every change in the state of the one being always accompanied by a corresponding change in the state of the other. All the faculties of thought and of feeling are feeble and inefficient in infancy, not from any defect in the immaterial principle of mind, but simply from the imperfectly developed condition of the organisation which in this life is required for their adequate manifestation. Some animals see distinctly immediately after birth, but hear very imperfectly; others hear, but do not see; and others again are almost completely deaf and completely blind. Everybody knows the explanation of these facts. In one animal, one organ of sense is early developed, and in another a different organ is sooner matured. And in like manner

in infancy, some internal faculties, the organs of which are early developed, precede in maturity others, the organs of which are not fully developed till later in life. In youth, the observing powers preponderate in energy and activity, and the corresponding cerebral organs show a predominance over those of the reflecting faculties which come later to maturity; thus exhibiting at every step the connection between the mode of action of each faculty and the condition of its own material organ.

If we look at the mind as a whole, we shall find it following the same rule of progression. The mental powers are feeble and vacillating in infancy; quick, variable, and active in youth; vigorous and enduring in manhood; deficient in energy and vivacity in old age—in exact correspondence to the progressive changes in the organisation of the brain from that of imperfect structure in infancy to that of progressive maturity and decay, as occurring successively in youth, in manhood, and in old age.

The effects of fatigue also, and the necessity of sleep for recruiting the mind as well as the body; the changes in thinking and in temper caused by the corporeal states of repletion and of hunger; the effects of opium and alcohol; the changes—the almost total abolition at one time and the astonishing excitement, force, and irregularity of action at another—of the different powers of the mind, in consequence of bodily disease or of accidents, show incontestably the never-ceasing dependence of mind on brain in this world.

Not only, however, do the mental powers follow the regular and comparatively durable changes thus brought about in the condition of their respective organs, but, as already alluded to, they are also affected in an equally evident manner by every change, however slight and of

however short duration, to which the organisation is subject, either from external or internal causes. The touch of a hair upon the skin, or the falling of a single ray of light upon the eye, is sufficient to cause answering changes in the state of the mind.

A morbid state of any part may be induced either by causes acting directly upon its function, or by causes immediately affecting the substance of which the part is composed. Thus inflammation of the eye may be excited either by stimulating its function by too much light; or by sand, or lime, or cold air coming in contact with its surface. The brain offers no exception to this rule; and it is proper to notice the fact, as it explains how derangement of the mental faculties came to be considered apart from their corporeal cause. One person, from a reverse of fortune, great affliction, or disappointed love, becomes insane, with all the symptoms of an affection of the brain; and another, from mechanical injury, from a *coup de soleil*, or from intoxication, falls into the same state. The former presents a marked example of excitement of function inducing disease of the organ; while the latter is an instance of the same result being consequent upon direct application of an external influence to the part itself. The true relation between the two states was not earlier perceived, because it was always forgotten that the function of the brain is to manifest the mind, and that, in so far as the manifestations of the mental powers are concerned, the agency of the brain is as indispensable as if it were the mind itself.

The bearing of the above facts upon the subject of the imperfect or disordered manifestations of the mind will be sufficiently obvious. Hitherto a singular and unfortunate distinction, for which there is no real ground, has

been made by medical men, as well as by the vulgar, between the morbid derangements of the external and those of the internal faculties of the mind. The organs of external sense having been long known, every disturbance of their functions has been justly ascribed to an affection of their material organs, and the efforts of the physician have been directed to the discovery of the nature of the particular affection then existing; and the treatment has been regulated accordingly. But when an internal faculty of feeling or of thinking has been deranged, instead of following the same rational course and ascribing its aberration to an affection of its cerebral organ, we have hitherto generally contented ourselves with the simple but vague affirmation that the mind was deranged, and have not cared to inquire what was the particular organic cause of the disturbance of function. And yet there is really no greater difference between the external and the internal faculties, as they are called, than between one external sense and another. All are equally powers of the mind, and differ only in each being connected with an apparatus fitted for its specific function. The mind requires an optic nerve with an external eye to enable it to see, because light is an external existence with which it must be connected; and it requires an internal cerebral organ to feel the sentiment of justice, because justice is not an external quality but a mental or internal relation. The mind requires an external organ to enable it to hear, because the vibrations of the air are external existences with which it must be connected; and it requires an internal organ to feel the sentiment of pity, because pity is not a quality of matter but simply a mental state or relation. The organs of the five senses are therefore merely parts added to the other cerebral organs, in order to connect the faculties of colour, form, tune, size,

number, &c., with the external world; and the powers of seeing, hearing, tasting, touching, and smelling are neither more external to nor less intimate parts of the mind itself, than any other power whether of thought or of feeling. The well-being of the brain is alike necessary to the exercise of all. If, then, the manifestations of the mental faculties, in a state of health, depend on the healthy condition of their organs, external and internal, and a change in the state of the mind attends even slight alterations in the state of the brain, it follows that a morbid condition of the organ of mind must be attended with morbid manifestations, or in other words with mental derangement, and that the mental health can never be re-established without the previous removal of the cause existing in the organ.

The time has been, and we fear is scarcely yet gone by, when such a doctrine, however much recommended by observation and enforced by experience, would have been denounced by the unthinking or prejudiced as dangerous to religion. It would have been, and indeed still is argued, that to hold the dependence of insanity on a bodily cause is to confound together mind and matter, and to teach that the brain is the mind, thereby destroying the strongest proof of the soul's immortality. But, happily for humanity, truth and reason are as imperishable as mind; and now that under their influence prejudices are fast giving way, it is more and more widely acknowledged that it is the old and false doctrine of the *mind* being subject to disease, which is justly chargeable with the apprehended danger; and that, if the immortality of the soul can be proved in any way by reason alone, it is on the grounds which we are now advocating, since on them only can a rational and safe theory of mental derangement be successfully established. The relation which we have shown to exist

between the state of the mind and the condition of its material organs, explains easily why—the immaterial principle remaining essentially unchanged—the mind develops its powers as we advance from infancy to maturity, and again declines as we reach old age; why it falls asleep in the night or loses consciousness from a blow on the head; why its manifestations are disturbed by intoxication or deranged by disease; why it is characterised in one by the weakness of idiocy and in another by the strength of genius. And in the fact that the mind never manifests itself in this world except through the instrumentality of corporeal organs, and that the condition of these organs influences the quality of the manifestations, we have an easy explanation of the origin of mental derangement, and of the possibility of its occurrence without endangering the principle of mind. The mind sees through the medium of the eye, just as it thinks or feels through the medium of the brain; and as changes in the condition of the eye deteriorate or destroy the power of vision without any affection of the principle of mind, the obvious inference follows that in like manner changes in the condition of the brain may derange or destroy the power of feeling or of thinking, and yet leave the mind itself essentially the same.

But if we refuse to admit the influence of the organisation, and ascribe the varying mental states to variations in the immaterial principle, unconnected with any corresponding bodily cause, then we must also hold that the congenitally defective mind of the idiot, has been created thus mutilated and limited in power; that it is the mind itself, and not the body, which is disordered by wine, set to sleep by opium, and apparently annihilated by a blow on the head; that it is the mind itself, and not its corporeal organ, which is weak in

infancy, strong and active in maturity, and again feeble in old age; that it is the mind itself, and not its bodily instrument, which is subject to delirium in fever, and to the thousand other forms of disease which impair, derange, or suppress the mental faculties. And if we admit all this, at what point are we to stop? If the immaterial principle be thus subject to disease and apparent annihilation, and to changes of which, when once begun, no one can tell the end, it becomes impossible any longer to draw evidences of its immortality from reason alone, because every presumption would then be against it. But, on the other view—that it is the organ which suffers disease and disturbs the mind—no difficulty whatever presents itself; and the doctrine remains open to every proof which can be urged in its support.

Mental derangement, then, properly speaking, is a disordered state of the functions of the brain, arising from some existing morbid action in that organ, which may or may not involve at the same time the functions and organs of the external senses, but which frequently exists without any such complication. This morbid action in the brain must be remedied before the alienation can be removed. Ignorance of the physiology of the brain has alone prevented this great truth from being perceived and acted upon. We are, no doubt, still far from the time when our knowledge of the functions of the brain will be complete, and when an adequate conception can be formed of the advantages which will ultimately accrue to medical and moral science from their discovery; but the great principles are already firmly established, and already, by the simplicity of their application to the elucidation of the morbid states of the human mind, they give evidence of their foundation in truth, and of

their incalculable superiority to the mere speculations and groundless theories which long usurped their place.

By constantly drawing attention to the connection subsisting between the power of manifesting every mental faculty and the condition of its particular cerebral organ, derangements of the internal faculties are placed in the same relation to the organic affection producing them as that in which the derangements of the five senses are placed. Sight is never impaired, nor hearing destroyed, unless the organs which execute these functions are diseased; and, in like manner, thought and feelings are never deranged, unless the cerebral organs by which they are manifested have undergone some morbid change. And as sight is injured by a great variety of morbid alterations in the eye or its nerves, so are the internal faculties of the mind deranged by a great variety of diseases affecting the brain. Even if we had not direct proof of the dependence of mental derangement on various cerebral affections differing in their nature, the force of analogy is so strong as of itself to establish the fact, and to satisfy the most sceptical inquirer that insanity is not a single and unvarying disease. Every affection to which an organ is liable may derange its function, and disturbance of the functions of the brain may therefore attend a variety of different cerebral states, each characterised by its own symptoms and requiring its own mode of treatment. The eye, for example, is the organ of vision, and any affection of the eye, whatever its nature, may derange its function and impair sight. The eye may be inflamed, or it may be distended with water, or opacity may cover its convex surface, or the optic nerve may be injured; and, as a consequence of any of these states, impaired vision or blindness may follow. Impaired or destroyed vision is therefore not a specific disease, but merely a proof or

symptom of the existence of some affection having its seat in the organ of sight, the real nature of which must be determined by other means. The ear is the organ of hearing, and all affections of whatever nature which have it for their seat may injure its function. The ear may be inflamed, or the tympanum may be ruptured, or the auditory nerve may be injured, and, as a consequence, hearing be more or less destroyed; showing that deafness is not a disease, but merely a symptom attending different maladies which have their seat in the ear. The lungs are the organs of respiration, and all causes of whatever nature affecting them, may derange their function and impede breathing. The lungs may be inflamed, or may be the seat of an extravasation of blood, or they may be compressed by water or air in the chest; and, as a consequence, in all these cases, respiration may be impeded; so that dyspnœa or difficult breathing is not a disease by itself, but merely a symptom attending diseases which have their seat in the lungs. And, in like manner, the brain is the organ of the mental faculties; and any affection of whatever nature having it for its seat, may disturb its function, or the manifestations of mind. The brain may be inflamed, or it may be excited by wine, or compressed by water, or injured by a fracture of the skull; and, as a consequence in every case, the mind be disturbed. Derangement of the mind, therefore, is not a specific disease, but is a symptom attending many different affections, which agree only in the single point of having the brain for their seat.

Some persons may think that I am taking a great deal of trouble to prove what is either self-evident, or of very little value even when proved. But it is not so; for many physicians have regarded madness as always the same disease, and as altogether unconnected with corporeal illness; and yet, were any physician to propose

to treat disordered action of any other functions without regard to the state of the organs which executed them his proposal would excite astonishment. Were any one, for example, to prescribe for difficult breathing, without an attempt to discover the organic or pulmonary affection whence it originated, or for impaired vision, without examining what was the particular disease of the eye that gave rise to it, he would be regarded as ignorant of the first principles of his profession. Yet this is precisely what has been done and recommended by those who have studied the pathology of the mental functions apart from that of their material organs, and have regarded insanity as always the same disease, requiring the same treatment, and who, having no clew to lead them back to the real difference of organic affection, have contented themselves with expressing wonder and surprise at its proteiform character and at the mystery in which the operations of mind are enveloped, when experience has presented insanity to their notice under widely different aspects, arising from obviously different causes, and demanding opposite modes of treatment.

But had the fundamental principle that the brain is the organ of mind, and consequently the fact that insanity always depends on a corporeal and cerebral cause, been recognised and kept in view, it would have been at once perceived, that, as every departure from health in an organ must necessarily disturb its function in a greater or less degree, and as the function of the brain is to manifest the mind, mental derangement could not be a specific disease, but must be one of the effects of whatever morbid causes disturb the action of that organ, and could therefore no more be considered as an individual disease than impeded respiration or impaired vision. Had insanity been always recognised to be a symptom of cerebral disease, the insane would never have

been rejected and excluded from our sympathies as the detested of Heaven, nor would they ever have been tortured by the lash or the chain, or exposed to public derision. Had a knowledge of its true nature possessed the public mind, we would as soon have thought of loading the gouty or the paralytic with reproaches and obloquy and of curing them by the application of the lash, as of treating the lunatic with the neglect and positive cruelty which he once met with. The moment we know that insanity is an effect of disease in the material organs with which the Creator has connected the principle of mind, and that to this affliction alone are to be ascribed the waywardness, violence, and impetuosity which often characterise that state, our feelings towards the unhappy patient and our attempts at cure must be very different indeed from what they would be were we still ignorant of its true nature.

The affections of the brain which disturb the manifestations of the mind may be divided into two great classes; the *first* comprising those which are acute in their character, rapid in progress, and dangerous to life; and the *second* those which are chronic in their nature, slow in progress, and compatible with a prolonged existence. Of the first kind, fevers, hydrocephalus acutus, and apoplexy, and of the second the various affections which give rise to insanity are familiar examples. In the former class, which are attended by local symptoms of too great intensity to leave their seat for a moment in doubt, the derangement of the feelings and intellectual powers is universally and at once ascribed to morbid changes going on in the brain or organ of the mind. But in the latter class, where the local symptoms are not severe, though the disturbance of the mental operations is strongly marked, the same connection of the phenomena with

their cause in the brain is frequently overlooked. As, however, it is of the utmost importance in practice to be aware of the relation subsisting between the two classes of cerebral affections—that the obscurities of the one may be relieved by the lights afforded by the other, and that our attention may be directed in both to the local cause of the disturbance of function—we shall keep the connection in view throughout, and thus seek to advance the pathology of insanity in the same way as that of other diseases, particularly as, in chronic affections of most other organs, we have greatly improved our principles of treatment from observing the progress and means of cure of their acute affections.

Having thus seen that mere disturbance of function is not a specific disease, but an effect of various and often opposite affections of the organ which performs it, and that mental derangement is not a specific disease, but a symptom of a cerebral affection, it follows, that although the terms mania, melancholia, insanity, idiocy, &c., may be used to designate the particular mental forms assumed by the symptoms, they ought to be entirely discarded as names of diseases, since their use serves to perpetuate the error, which has long been the bane of medicine, of supposing them really to belong to and to designate specific states, requiring in all cases a specific treatment. And, in their place, we ought to speak of the various diseases of the brain which disorder the mental functions or faculties; just as in the case of the lungs, instead of speaking of dyspnœa as a specific disease, we constantly go back to the local or organic affection, and speak of pneumonia, of pleuritis, of phthisis, or as we speak of ophthalmia, cataract, &c., and not of simple blindness or obscurity of vision, which, as a disturbance of function, must necessarily be common

in a greater or less degree to all diseases affecting the eye, whatever their nature and whatever their cause.

It is quite true, that, in attempting to apply this principle to those affections of the brain which give rise to mental derangement, we shall at first, from the excess of our ignorance, make a very poor appearance; but, even in the attempt, there will be the superlative advantage of keeping the very limited extent of our knowledge constantly before our eyes, and of stimulating us to unremitting exertion in the only path calculated to improve or increase it; whereas it is not less true than sad that the only use of our present nomenclature is to make us deceive ourselves, and rest satisfied with a word in the absence of an idea; for, as already hinted, the method generally pursued of naming the disease after the prominent symptom without regard to the nature of the organic cause, lies at the root of all the confusion and contradiction that have encumbered the investigation of cerebral affections productive of insanity.

It is scarcely disputed now, that the brain is an aggregate of many distinct organs, each manifesting a distinct mental power. It is as generally admitted that one or more of these organs may be injured or diseased, and their functions impeded or altered, without necessarily affecting the remainder; and this explains how a man may be insane on one faculty and sound on all the rest; and, consequently, how, when a different organ is diseased, the faculty or feeling that is deranged may be different, and the prominent symptoms different, and yet the disease itself remain exactly of the same nature. Inflammation affecting the eye disturbs vision, and affecting the ear disturbs hearing, because vision is the function of the one and hearing is the function of the other; but still it is inflammation in both, and may require in both the same kind of treatment.

This view differs widely from that of those who maintain the brain to be an unit, every part serving equally to manifest all the faculties. On this principle it is impossible to explain how it happens that, in a majority of instances, a few only of the mental powers are deranged, while the others remain untouched or but little affected. For if the whole brain were the single organ of mind, every part of it ought to concur in every mental operation, and all the faculties of mind, of which it is said to be the instrument, ought in every case to be equally deranged, and the patient ought to pass in one moment from an abyss of despondency to the abodes of bliss, or from a state of listless apathy to that of demoniacal furor. We may be told that this is sometimes found actually to be the case, and no doubt it is so. Sometimes, indeed, heterogeneous manifestations and rapid changes from one class of ideas to another take place; but then, the whole brain, including of course all the organs, is more or less diseased; and such a state affords a true picture of the nature of insanity, as it would necessarily be in every instance, if the organ of mind were single—that is, if the brain were not a congeries of organs.

## CHAPTER III.

### PREDISPOSING CAUSES OF MENTAL DERANGEMENT.

THERE are very few persons in whom all parts of the body are equally proportioned, and in whom all the functions go on with that complete harmony of relative force and activity which constitutes health. In almost every one some organs are either in excess or in defect, attended with an undue predominance of some functions over others, and giving rise in the former case to a susceptibility to excitement and in the latter to a corresponding depression of vital power. The natural consequence of this state of the constitution is, that the same external causes do not always produce the same diseases, but, acting most powerfully on those organs which are the farthest removed either in strength or in weakness from the standard of healthy proportion, induce diseases, differing in their seat and in their nature according to the situation and condition of the disproportioned organs; and it is for this reason that we find the same physical cause—exposure to cold and wet, for example—giving rise in one person to pneumonia and in another to diarrhœa. In investigating the causes of diseases, therefore, it is as necessary always to keep in view the peculiar qualities of the constitution to which the cause is applied, as the nature and mode of action of the cause itself.

When any organ, from predominance or weakness, or from some peculiarity of structure, is constitutionally prone

to disease, it is in medical language correctly enough said to be predisposed; and the qualities which constitute the predisposition are called the predisposing causes, in opposition to the others, which are named the exciting or occasional causes.

An examination of the predisposing causes of any disease is necessary to enable us to understand its origin, nature, and treatment, including in the latter the means of its prevention. When accurately known, they generally indicate the seat of the malady, as must at once be obvious on recollecting that a predisposition is a local condition or weakness of the part in which the morbid action is afterwards excited by the external or occasional cause; and unless the predisposing causes be found out and removed or modified, we can neither hope to prevent the accidental accession of the disease, nor expect to bring about a permanent cure.

That predisposition—consisting in the existence of some peculiarity either natural or acquired in the constitution of the brain, rendering it unusually susceptible of morbid action—is very influential in the production of mental derangement is generally admitted, and is apparent from every circumstance ushering in and attending its occurrence. We are told by Esquirol, for example, that he is now "more convinced than ever that the exciting causes, whether moral or physical, never act suddenly, except where a strong predisposition exists." A very slight cause will suffice to produce derangement in a person whose brain has from heredity, from previous disease, from accidental injuries, or from strong and continued excitement of mind, become unnaturally irritable and prone to irregular action.

In one sense the distinction between predisposing and exciting causes is not strictly philosophical; because

most of the former, if sufficiently continued and intense, will give rise to the disease without the concurrence of the latter; and the latter on the other hand, if not very violent, will produce only that inferior degree of disturbance which itself constitutes a predisposition. Practically, however, it is useful; because in general, either class taken singly fails to produce the effect—the disease being in most instances the result of an accidental cause co-operating with an existing predisposition. But, for all useful purposes, it is fortunately unimportant to which division any particular cause may be referred, provided its mode of operation be properly understood.

All causes of diseases may be considered as infringements of one or more of the laws or conditions of health; and hence, in investigating the morbid history of the brain and of every other organ, it becomes essential to ascertain what these conditions are; or, in other words, to know the laws by which the healthy exercise of its functions is regulated. For if any of these be departed from, either on the side of deficiency or excess, the health of the part must suffer in proportion; and accordingly we find, in the case of the brain, that almost all the causes of its diseases derive their power from the relation in which they stand to its healthy action. It would therefore be a decided improvement in the practical value of our physiological works were this principle more attended to in the exposition of functions; for, were the chief circumstances which influence the due preformance of each to be specifically stated, it would not only insure their more careful observance during health, but would lead to their more efficient adaptation to the removal of disease.

The first condition required for the healthy action of the brain is, I need scarcely say, a sound original constitu-

tion. In this respect the brain is like every other part of the body. If it possesses from birth a freedom from all hereditary taints and imperfections, and if it has acquired no predisposition to disease from injudicious treatment in infancy, it will withstand a great deal in after-life before its health gives way. But if, on the other hand, it inherits deficiencies, or if early mismanagement has subsequently entailed upon it an unusual proneness to morbid action, it may give way under circumstances which would otherwise have been perfectly innocuous. Accordingly, in conformity with the physiological view given above, it may be truly said that the most powerful of all the causes which predispose to cerebral disease and mental derangement, are (1) the transmission of an hereditary tendency from parents to children, producing in the latter an unusual liability to those maladies under which the parents have laboured; and (2) the existence of great irritability of the nervous system as a permanent quality acquired in early life, either from mismanagement or from the accidental occurrence of other diseases which leave behind them unusual sensitiveness to external impressions. On both of these causes I shall offer a few observations.

Authors who differ on every other point, agree in acknowledging that a condition of the brain, rendering it unusually susceptible of diseases which are attended by mental derangement, is hereditary; and this truth is recognised by the vulgar (often the best judges in matters of observation), when they speak of insanity being in the family. By the hereditary transmission of insanity it is not meant that the actual malady is conveyed from parent to child, and that, after lying latent for some years, it will inevitably appear in the child, in whatever circumstances he may be placed. The meaning is simply that some quality of brain is communicated to the off-

spring, rendering them more prone than other people to undergo cerebral disease, and thereby to become insane; and in consequence of which, causes will produce mental derangement in them which in persons not so predisposed would have proved harmless.

When we see the offspring of consumptive parents displaying the same defective formation of thorax, the same liability to *cold*, and the same difficulty of sustained vigorous respiration that distinguished their parents, we say at once that their lungs are constitutionally weak, and that they will require care to preserve them from becoming consumptive; and in every instance of hereditary transmission of disease we say that the children are born with a peculiar weakness in that part in which the affection has its seat. In like manner, we ought never to forget that when insanity runs in a family the primary cause is a peculiar constitution of the brain; that it is not a defect in the immaterial principle of mind, but a defect in the brain through which the mind operates, that is thus inherited from the parent.

The second form in which departure from the first condition of cerebral health produces liability to cerebral disease and insanity, is that in which, from an unusual severity of some of the diseases incidental to infancy, injudicious training, confinement to ill-ventilated apartments, over-feeding, too early straining of the mental powers, too ready gratification of the passions, inclinations, and caprices of youth, and a variety of other similar causes, an unusual instability has been impressed upon the nervous system, laying a foundation for the subsequent occurrence of cerebral and mental affections from trifling causes. The predisposition thus produced is by no means unfrequent, but as, when once existing, its mode of action is the same as that of the hereditary

tendency, it is unnecessary to discuss it at any length. In youth it is often a chief cause of the appearance of hysteria, epilepsy, or other form of nervous disease. But, in mature age, particularly in persons of a peculiar temperament with proneness to excessive excitement of the nervous system, it more frequently leads to mental derangement. It is well known among medical men that fevers, in which the head has been much affected, indulgence in the abuse of wine or spirits, apoplexy, and a variety of other morbid states, often leave the brain in a condition not perhaps of absolute disease but of extreme instability. Sometimes even a single fit of drunkenness will so far over-stimulate cerebral action as to throw the individual into violent madness of short duration; and it can easily be conceived that a frequent repetition of the same stimulus, to an extent not amounting to drunkenness, may at last produce a permanent state of irritation, which it may require only a slight cause to convert into disease. For the same reason, blows on the head frequently leave behind them an unusual liability to disease. Spiculæ of bone in the interior of the skull, keeping up a slight but constant irritation, operate more or less in the same way, and are therefore not uncommon predisposing causes of some form or other of cerebral and mental disease,—particularly of epilepsy.

The next condition of health is a well-balanced proportion of all the parts of the brain, so that none shall possess an undue ascendency over the rest. It can scarcely be doubted that organic size influences energy of function; and when it is recollected that, as a general rule, the largest organs are also relatively the most prone to activity—that, when once excited, they are the most imperious in their demands for gratification—and that habitual over-activity of function is attended with habitual excess

of action, closely bordering on disease, in the vessels and structure of the part itself,—we cannot fail to attach importance to a just proportion in the development of the different parts of the brain, and can have no difficulty in believing that excess of endowment in some organs, with corresponding excess of functional activity, is a very common predisposing cause of mental derangement.

However much the reader may demur to this proposition as applied to the brain, its importance as regards other parts of the body is too well known to admit of being successfully disputed. A healthy and good constitution is largely due to an equal balance between all the parts and functions of the body. Whenever any part predominates too much, it is accompanied by a corresponding excess of energy and activity of function, and when, on the other hand, any part is too little developed, it is attended with a weakness and inactivity of function. Both conditions place the body on the verge of disease; and the principle on which this happens is apparent enough. The effect of exercise is to increase the velocity and volume of the blood-stream in the part, and thus to augment its power of function. A larger supply of blood and a greater flow of nervous influence take place towards it, and its whole condition is that of excitement. If the stimulus be withdrawn in time, and an interval of repose allowed, strength and nutrition are improved, and the superfluous excitement gradually subsides. But if the intervals of action be either too short to admit of this subsidence, or the activity and excitement be too long kept up or too frequently repeated, the vascular and nervous excitement go beyond the limits of health, and the part continues to act with disproportionate violence, either till by medical treatment the excitement is subdued, or till by its continuance it brings on morbid changes

of structure which nothing can remedy. Now, it seems to be almost a law of nature that, *cæteris paribus*, the larger an organ is the greater will be its energy and the more irresistible its tendency to action. On this principle, we find the individual—such as the gladiator or the boxer—whose muscularly robust frame contrasts with the smallness of his intellectual organisation, delighting in active muscular exercises and recurring to them with increasing pleasure, but showing no tendency to seek gratification in any intellectual pursuit for which his organisation is less adapted; and, for the same reason, we find the man of powerful brain and weak muscles, delighting in the sedentary exercise of his brain in mental employments and averse to muscular action. The same rule holds in comparing strong with weak mental functions. Wherever an individual possesses a set of faculties in much higher endowment than the rest, those will assume the predominance in activity as well as in energy. If they belong to the department of intellect, there will be intellectual activity and a delight in their exercise; if they belong to the moral sentiments, there will be a tendency to, and a delight in, moral pursuits; and if they belong to the propensities, there will be a constant recurrence of, and delight in, selfish and debasing gratifications of passion and sensual appetite. Accordingly, in society, we find the artist whose pictorial talents are naturally the strongest, seeking his chief delight in their constant exercise, however adverse the circumstances in which he may be placed. If he is poor, and cannot command materials and instruction, he may, if the talent be strong, employ it in drawing with a burnt stick on a garret wall, rather than forego the enjoyment arising from its activity; while, if the organs on which the manifestation say of mathematical genius depends be weak, he may have every external advantage and incitement to

application to that branch of science, without producing any internal activity sufficient to render their exercise pleasurable. In like manner, the man who is naturally endowed with high mechanical talent finds it taking the lead, and craving for exercise with a force proportioned to its natural strength; while, if deficient in the corresponding faculties, he may find no pleasure in the speculations of the metaphysician, the compositions of the musician, or the effusions of the poet, each of whom will, on the same rule, seek his delight in satisfying the constant cravings of his predominating faculties, and feel no interest either in the inventions of the mechanician, or in the speculations of the mathematician, which address themselves to faculties of which he happens to possess a weak endowment. And if the strength of every mental power bears a proportion, *cæteris paribus*, to the size of its cerebral organ, it naturally follows that the disproportionate development of these organs to each other must be a predisposing cause of insanity; and we find that this has been substantially acknowledged by authors in almost every age.

It is true that it is only among later writers that we find the proposition expressed in these words, but the oldest authors state what is equivalent to it. I assume that the various fundamental faculties of the mind operate through the medium of distinct cerebral organs, and that the power of manifesting each bears a proportion, *cæteris paribus*, to the size of its own organ or part of the brain; and consequently, if this relation be considered as established, that intensity of function becomes an index of size of organ just as size of organ is an index of intensity of function—the expression of the one quantity being equivalent to that of the other. So that, supposing the laws of nature to be the same now as they have been in times past, whenever we find it remarked

that any mental power or feeling existed in great energy, and formed a principal feature in the character, we are entitled to hold that the cerebral organ through which it manifested itself was in corresponding excess, and therefore disproportioned in size to the rest. I hold this to be true from satisfactory evidence, the statement of which would be foreign to these pages; and it is only on this assumption that the argument becomes logical.

In these remarks the value of the quality or condition of different parts of the brain is by no means lost sight of, and in pointing out the significance and importance of size, a similarity of quality is assumed.

In affirming that the disproportionate development of one or more of the cerebral organs, and, consequently, peculiarities of mental character, predispose to cerebral disease, on account of the facility with which the peculiar over-activity of the brain may be carried to the length of morbid action, I must not be understood as affirming that in every lunatic the brain will be found irregularly developed. The reverse is often the fact. Every part of the body, and every part of the brain, may become diseased, whatever be its form, size, or proportion to the rest. It must not be forgotten that a small organ may be in a state of morbid activity when a larger one is sound; and that a large organ may be in a state of atony and its function be altogether in abeyance.

Before leaving this branch of the subject, I may shortly advert to another predisposing condition, with which that just treated of is closely connected. I allude to deficient organic endowment, in consequence of which the mental powers are unable to withstand any casual excitement or forced exertion into which they may be thrown. This, as might be expected, is to be met with most frequently in persons whose deficiencies render them unfit for the

stations which they occupy in society, and incapable of the duties committed to their charge. Conscious of incapacity, and yet unwilling to be borne down without an effort, they live in a continued turmoil and struggle, worried and oppressed by calls which they cannot answer and cannot escape from, till at last some accident occurs to turn the balance and deprive them of reason. Men of strong ambition but of little talent, who labour and strive incessantly to make some improvement or effect some discovery, or to do something which shall bring them distinction, and, under this impulse, goad on and tax their limited powers to the uttermost, place their cerebral organisation on the brink of disease, and require only a trifling cause to induce mental disorder. So efficient, indeed, is defective development as a predisposing condition, that, in many cases, idiocy seems to be solely due to the smallness of the brain. It sometimes happens, that where the anterior lobe of the brain is sufficiently developed to raise the individual above decided imbecility, he may pass through childhood and boyhood without remark or suspicion of his true state; and yet, on arriving at maturity when all the faculties ought to be in their vigour, his friends may be surprised to find that the mind is in reality so limited as to be quite oppressed by the ordinary details of business, and that the little reason originally possessed is likely to be upset by continued application to them.

The third condition of health, infringement or neglect of which gives birth to a distinct class of predisposing causes, is the regular active employment of all the organs of the brain and all the faculties of the mind, each on its own object; for, like every other part of the animal economy, the brain is greatly dependent for its health on regular exercise. The well-being and happiness of man,

both as an animal and as a moral being, lie in activity; and the brain is formed in strict relation to this general law. If it be too little exercised, its organisation becomes enfeebled, its functions impaired, and its structure prone to diseased action; but, as the agency of the causes referable to this condition cannot be rightly understood without direct reference to what may be called the general laws of exercise, I must shortly refer to these.

Every part of the animal frame being constituted by the Creator with a view to being actively employed, enjoys the best health, and performs its functions in the most perfect manner, when it is duly and regularly exercised. The physiological explanation of this fact is at once simple and interesting. Arterial or oxygenated blood is the essential medium whence every organ derives the nutriment by which its substance is repaired, and the stimulus by which its vitality is preserved. If imperfectly supplied with this fluid, or if the blood, although abundant in quantity, be deficient in quality—imperfectly oxygenated for instance—all the organs to which it is distributed are feebly nourished; and, as a necessary consequence, the functions which they execute become, to a corresponding degree, enfeebled and languid. Now, the chief local effect of exercise is to cause a more rapid and plentiful supply of blood and of nervous energy, and thereby to add so much to the vigour of nutrition as not only to supply the waste occasioned by the exercise, but also, in certain circumstances, to add to the development of the organ and increase its power. If we use the arms, for example, in any given way for a length of time, we soon observe an afflux of fluids, indicated by a perceptible fulness and distension of the vessels, accompanied by an elevation of temperature, a sense of augmented vitality and power, and a greater readiness of action. This is the most beneficial degree of exercise;

and, in youth, its influence in promoting the regular and healthy development of all parts of the body, before they have acquired their full growth, is very conspicuous. In mature age its effects are not less salutary; for, although it does not at that period of life so frequently increase the size of the corporeal organs, it gives to them a vigour, facility, and unity of action, which, both in mind and body, every one recognises as contrasting with the dull and slothful movements entailed upon us by indolence and idleness; and it keeps up that activity of circulation and that free supply of nervous energy which are the best preservatives of health. In old age its operation is also manifest in the degree of strength and hilarity which it inspires, as opposed to the feeble decrepitude and pining captiousness which its neglect is sure to bring along with it.

If, however, the amount of exercise imposed be carried beyond this point, different results follow. The increased action, occasioned at first by the stimulus of excitement, cannot be kept up beyond certain limits, without in its turn enfeebling the nervous activity and modifying the supply of blood; and, therefore, if still persevered in, the waste of power and of material goes on increasing in a rapid ratio, while the vigour of the nutritive and restorative processes becomes every moment less, and positive debility and loss of substance ensue. In youth, when the processes of waste and nutrition are in the highest energy, it is notorious how fast the system will rise or fall in proportion as the balance is turned the one way or the other.

If, on the other hand, the amount of exercise be trifling, another evil, deserving of much consideration, presents itself. Every part being constituted by the Creator with a view to being used—in other words, in relation to the laws of exercise—it necessarily happens

that, when deprived of the stimulus which exercise communicates to vessels and nerves, the latter act with diminished energy, the circulation becomes languid, vitality low, imperfect nutrition and want of vigour follow, inducing weakness and slowness of function. In this state of the vessels, imperative exercise may at first be felt as an overwhelming burden; but if it is entered upon with moderation and extended regularly and gradually, as the vital powers become excited, an astonishing increase of activity and vigour ensues. In the bodily system this effect is often seen to follow imperative muscular exercise, which in a short time will greatly reduce the bulk of a fat and indolent man, and add in the same proportion to his real strength. In fact, so little can this principle be doubted, and so marked are the changes which it effects, that, by long disuse, the muscles shrink in size and become relaxed in texture, so as to be scarcely cognisable. Such results, it may be said, follow only in extreme cases, and this is quite true. But the nature of the process remains the same at every period of its progress, and the part which becomes disorganised by total disuse, becomes imperfect in tone, structure, and function by partial disuse or insufficient exercise.

The same laws of exercise regulate the health of the brain and the performance of its functions. If the different cerebral organs be called into daily activity, and duly stimulated by being employed on their own objects for a length of time proportioned to their constitutional vigour, and if sufficient intervals of repose be allowed, their vital action becomes animated and enduring, and the corresponding mental powers act with a readiness, vivacity, and force, characteristic of health. But to attain this most desirable end, the feelings and moral sentiments must be daily in exercise, as well as the intellectual faculties, for they also go to constitute the

mind. Their organs are parts of the same brain, which has other parts for the manifestation of intellect—they are composed of the same kind of nervous matter and are nourished by branches from the same blood-vessels—they are therefore subject to the same laws, and require the same diligent training, and the same treatment as to action and repose, to keep them in health and bring them to perfection. If, on the other hand, they are too strongly or too continuously excited, their vital energies are exhausted, nutrition is deteriorated, and the functions are executed with feebleness and irritation; and, lastly, if their exercise is neglected, they become feeble and indolent in their operations and prone to morbid action.

Keeping these principles in view, it will excite no surprise to find that non-exercise of the brain and nervous system, or in other words inactivity of intellect and of feeling, is a very frequent predisposing cause of insanity and of every form of nervous disease.

If we look abroad upon society, we shall find innumerable examples of mental and nervous debility from this cause. When a person of some mental capacity is confined for a length of time to an unvarying round of employment, which affords neither scope nor stimulus for one half of his faculties, and when, from want of education or society, he has no external resources, his mental powers, for want of exercise to keep up due vitality in their cerebral organs, become blunted—his perceptions slow and dull—and he feels any unusual subjects of thought to be disagreeable and painful intrusions. The intellect and feelings, not being provided with interests external to themselves, either become inactive and weak, or work upon themselves and become diseased. In the former case the mind becomes apathetic, and possesses no ground of sympathy with its fellow creatures; in the latter it becomes unduly sensitive, and shrinks within

itself and its own limited circle, as its only protection against every trifling occurrence or mode of action which has not a relation to itself. A desire to continue an unvaried round of life takes strong possession of the mind, because, to come forth into society requires an exertion of faculties which have been long dormant, which cannot awaken without pain, and which are felt to be feeble when called into action. In such a state, home and its immediate interests become not only the centre, which they ought to be, but also the boundary of life, which they ought not to be; and the mind, being originally constituted to embrace a much wider sphere, is shorn of its powers, deprived of numerous pleasures attending their exercise, and the whole tone of mental and bodily health being lowered, a total inaptitude for the business of life and the ordinary intercourse of society comes on, and often increases till it becomes a positive malady.

But let the situation of such a person be changed; bring him, for instance, from the listlessness of retirement to the business and bustle of a town—give him a variety of imperative employments,—and place him in society, so as to supply to his cerebral organs that extent of exercise which gives them health and vivacity of action,—and, in a few months, the change produced will be surprising. Health, animation, and acuteness will take the place of former insipidity and dulness. In such an instance it would be absurd to suppose that it is the mind itself which becomes heavy and feeble, and again revives into energy by these changes in external circumstances; the effects arise entirely from changes in the state of the brain; for regular exercise conduces to its greater health and activity, and the mental manifestations and the bodily health have been improved solely by its improved condition.

Perhaps the most frequent victims of this kind of predisposition are women of the middle and higher ranks, especially those of a nervous constitution and good natural abilities, who, from ill-directed education, possess nothing more solid than mere accomplishments, and have no materials of thought or feeling and no regular or imperative occupations to demand attention, and whose brains in short are half asleep. Such persons have literally nothing on which to expend half the nervous energy which nature has bestowed on them for better purposes. They have nothing to excite and exercise the brain—nothing to elicit activity; their own feelings and personal relations necessarily constitute the grand objects of their contemplations; these are brooded over till the mental energies become impaired; false ideas of existence and of Providence spring up in the mind; the fancy is haunted by strange impressions; and every trifle which relates to self is exaggerated into an object of immense importance. The brain, having literally nothing on which to exercise itself, becomes weak and the mental manifestations are enfeebled in proportion; so that, persons of good endowments, thus treated, may often not only exhibit a certain degree of imbecility, but may gradually become irritable, peevish, and discontented, and open to the attack of every form of nervous disease or derangement, from causes which, under different circumstances, would never have disturbed them for a moment.

That the liability of such persons to hysteria, hypochondriasis, and other varieties of mental disorder, really depends on a state of irritability of brain, induced by its imperfect exercise, is proved by the vast and rapid improvement we often witness from the sudden supervention of occurrences, which excite and employ the mental powers and their cerebral organs. It is not unusual to

see a nervous young lady, who for years had been unfit for anything while ease and indolence were her portion, deriving great advantage from apparent misfortunes, which throw her upon her own resources, and force her to exert her utmost energies to maintain a respectable station in society. Where, as in such circumstances, the mental faculties and brain—the intellect, and the moral and social feelings—are blessed with a stimulus to act, the weakness, the tremors, and the apprehensions, which formerly seemed an inborn part of herself, disappear as if by enchantment, and strength, vigour, and happiness take their place, solely because God's law is now fulfilled, and the brain with which He has connected the mind is supplied with that healthful stimulus and exercise which He ordained to be indispensable to its healthy existence, and to comfort and welfare.

An additional illustration—and I venture upon it because the principle is an important one in the production, not of insanity only, but of many other distressing forms of disease—will be found in the case of a man of mature age and of active habits, who has devoted his life to the toils of business, and whose hours of enjoyment have been few and short. Suppose such a person to retire to the country in search of repose, and to have no deep moral, religious, or philosophical pursuits to occupy his attention and keep up the active exercise of his brain,—the latter will lose its health, and the result may be ennui, weariness of life, despondency, and almost every variety of nervous disease.

Excess of mental activity, either in degree or in duration, is also an infringement of the third condition of health, and, as such, predisposes to cerebral and nervous disease. If the brain is tasked too much, and proper intervals of relaxation and sleep are denied to it, its functions soon become disturbed—as is daily witnessed in

the production of headaches and every kind of nervous disorder from prolonged mental excitement or exertion, and neglect of sleep.

The fourth and last condition required for the health of the brain, which I shall here notice, is a due supply of properly oxygenated blood. In the middle divisions of the scale, it is difficult to estimate accurately the influence of this condition; but, at the extreme points, it is too obvious to be overlooked. If the supply of arterial blood be altogether withdrawn, the brain ceases to act, sensibility becomes extinct, and the mental powers are no longer manifested. Thus, when carbonic acid gas is inhaled, the blood circulating through the lungs does not undergo that process of oxygenation which is essential. It is sent to the head dark and venous, exactly as received by the lungs; but, being in this state unfit to excite or support the action of the brain, the cerebral functions become impaired, and ere long a cessation of all the functions of sense, thought, and feeling may take place, and death close the scene. If, on the other hand, the blood be too highly oxygenated, as by breathing air containing more than its normal proportion of oxygen, or by breathing ordinary air very rapidly, a condition is induced under which the respiratory movements cease for a time.

Such are the two extremes; but the slighter variations have equally sure, although less palpable effects. If the quality of the blood be impaired, as by breathing an atmosphere so far vitiated as to be insufficient to produce the proper degree of oxygenation, then it nourishes and stimulates the brain imperfectly; and, as a necessary consequence, languor and inactivity of the mental and nervous functions ensue. This is seen every day in the listlessness and apathy prevalent in crowded

and ill-ventilated schools; and in the headaches and liability to fainting which are so sure to attack persons of a delicate habit in the contaminated atmosphere of crowded theatres, churches, and assemblies. It is seen less strikingly, but more permanently, in the irritable and sensitive condition of the inmates of over-crowded factories and schools. In these instances the operation of the principle cannot be disputed, for the languor and nervous debility consequent on confinement in ill-ventilated apartments or in air vitiated by the breath of many people, are neither more nor less than minor degrees of the same process of poisoning to which I have just alluded. It is not real debility which produces them; for access to the open air quickly restores activity and vigour to both mind and body, unless the exposure has been very long, when more time is required to re-establish the exhausted powers of the brain. A good deal of observation has convinced me that imperfectly oxygenated blood being sent to the brain is greatly more influential in the production of nervous disease and general delicacy of constitution than is usually imagined; and that no practice can be more irrational and injurious in this respect than the very prevalent custom of sleeping in beds closed in on all sides by curtains, which do away with every advantage resulting from the size of the room, nearly as effectually as if its limits did not exceed those of the bed itself.

Other predisposing causes are usually mentioned, such as age, sex, and profession; but as almost all of them may be resolved into extreme exercise of one or more of the cerebral organs to the neglect of the rest, it is unnecessary to consider them here, at least in detail. For instance, the middle period of life is more fertile in the production of mental derangement, only because it is then that the brain is in its highest state of activity,

and then also that the mind is most frequently agitated by violent and tumultuous passions. It is then that love, fame, wealth, pride, &c., take possession of the mind and by their continued excitement lead to cerebral disease. The female sex, again, may be held to predispose to insanity in common with all other diseases of the nervous system, because in women the feelings are more acute and external resources are more limited. And perhaps a sedentary literary life predisposes to cerebral affections for the reason that it keeps the brain in an undue and permanent state of activity, convertible by slight causes into a state of morbid excitement.

## CHAPTER IV.

### EXCITING OR OCCASIONAL CAUSES OF MENTAL DERANGEMENT.

In studying the pathology of the brain and nervous system, and the derangements of the mental manifestations to which their morbid affections give rise, it is essential to discover not only the immediate cause, but also the relation which that cause bears to the constitution upon which it has acted; for in this latter point the whole practical value of the inquiry consists. Without attending to this, we may indeed know, in a general way, that certain circumstances will act prejudicially; but we shall be unable to trace any connection between them and the definite form in which the injury shows itself, and shall therefore be less able to guard against or to counteract their influence. For instance, in one individual, or in one state of health, exposure to solar heat may be a cause of mental derangement; but in another individual, or in a different state of health, it may be a cause of other maladies.

So important, indeed, is the constitution or state of health, that it generally determines the nature of the future disease; and for this reason, we often find acute affections of the brain arising from the same causes as those affections which constitute the ordinary forms of insanity. The chief difference that obtains between them is, that the causes of the former are either more powerful in degree, or are applied to a more irritable

and excitable subject. Sudden and excessive mental distress, for example, may sometimes give rise to apoplexy or epilepsy; while continued but less intense anxiety may gradually stir up that lower but more permanent morbid action which constitutes what we call insanity. On the other hand, if the person, from constitutional or other tendencies, be predisposed to any particular form of disease, then the exciting cause, however slight, will occasion that form in preference to any other. Thus, nothing is more common than to see a particular cause—the direct tendency of which, in every case, is to disturb the health of the brain—produce fever and delirium in one, mania in another, melancholy in a third, hysteria in a fourth, epilepsy in a fifth, and no disease whatever in a sixth; the effect varying according to the constitutional or existing proclivities of each. In consequence also of the natural affinity which subsists between these affections, from all of them having the same seat, they are often observed to pass into and to complicate each other.

In seeking thus to connect the two kinds of diseases to which the cerebral structure is liable, it will be useful to call the attention of the reader to the well-known but rather neglected fact, that, whether the cerebral affection be acute or not, it equally involves the soundness of the mental manifestations. By long habit founded on ignorance, we have been accustomed to consider that as mental derangement and a distinct disease which attends a condition which is not acute, and that as delirium and merely a symptom which is the derangement of acute disease. Now, however, we cannot fail to perceive that insanity and delirium stand in precisely the same relation to their organic cause, and that the one is altogether as much a symptom as the other. If, for example, we take up Dr Abercrombie's publication on

the Pathology of the Brain, we shall find, in almost every page, change of character and disposition, delirium, peevishness, wandering of the judgment, loss of memory, coma or suppression of the mental powers, mentioned as appearing in acute diseases of the brain, just as we find false perception and errors of feeling and judgment in those disorders of the brain which we do not call acute. But we never find that author erecting delirium into one disease, loss of memory into another, or coma into a third, as is frequently done with the phenomena of insanity; and we never find him treating of the mental affection as distinct from the bodily disorder, as is often done in treating of the mental symptoms consequent upon diseases of the brain which are not acute. In every instance of acute disease, the pathologist regards the mental phenomena as symptoms, and refers to them only for the purpose of tracing them to the organic lesion which produces them. In prosecuting our researches into what are erroneously called Mental Diseases, we must follow the same course, and study the nature of the organic disorder which disturbs the mental functions, and not waste our labour in vain attempts to classify mental symptoms into independent diseases.

Whatever disturbs the healthy action of the brain may become an exciting cause of insanity and of nervous disease. External violence, the application of intense cold, exposure to solar heat, irritation in a distant organ of the body, severe and unremitting study, grief, fear, anxiety, inordinate ambition, or any feeling of the mind roused to great excess, are all occasional causes of insanity or cerebral disease, because all of them tend to disturb the healthy action of the brain. But it must be observed that sometimes these things do not occasion any disorder in the manifestations of the mind. This difference of result depends, as formerly pointed out, on

the peculiar constitution to which the exciting cause is applied. If an hereditary predisposition to insanity exists, then the consequence may be an attack of mania; if there is no such predisposition, and the patient is young and vigorous, and the cause sudden and violent, then acute disease and delirium may follow; and, lastly, if the individual has arrived at maturity, is otherwise in good health, and is favourably situated in respect to resources, the effect may be simply a temporary paroxysm of mental distress. In all these instances, however, the tendency and action of the cause is to derange the health of the brain; and the manifestations of the mind never become morbid, unless the health of the brain be previously disturbed.

In accordance with the view we have elsewhere taken of the constitution and functions of the brain, the exciting causes may be divided into the two great classes of local and functional. Among the local causes which derange the mind, by disturbing the healthy action of the brain, I need hardly say, is external violence. Every one knows that a blow on the head may sometimes suppress the mental operations altogether, which is certainly the *ne plus ultra* of derangement; and every professional man is aware that a fracture of the skull and wound of the brain frequently give rise at once to acute inflammation and to mental disturbance in the form of delirium, while at other times they lead to a lasting change, accompanied with mental disorder in the form of dementia.

Cold is another local cause which exerts a powerful influence on the mind and brain. Intense cold stupefies, and produces many of the effects of intoxication: and moderate cold, as is well known to dram-drinkers, clears the head and facilitates thinking.

That great heat may also derange the health of the

brain and give rise to insanity, is evident from the fact, that exposure of the uncovered head to the direct rays of the sun has often brought on a severe and long continued paroxysm of mania, and, perhaps still more frequently, acute cerebral disease and violent delirium, terminating sometimes in fatuity and sometimes in death.

Numerous other instances might be given of causes acting locally upon or in the brain giving rise to insanity, but only a few need be named. Tumours, exostoses, and apoplexy are examples of this kind. Every one must have seen or heard of cases in which apoplexy ended in the derangement or weakening of the mental powers. Esquirol rates apoplexy as constituting about one-sixth of the physical causes of insanity ; and, in fact, it is rare to see hemiplegia without some disturbance of the mind. These circumstances, it must, however, be observed, do not of themselves constitute insanity. They only tend to produce that disordered cerebral action on which insanity depends. Fevers may also be noticed as frequently deranging the mind by disordering the healthy action of the brain ; and it is allowable to cite them as instances, because, even when *wandering* is first perceived in fever, every one admits and exclaims, that " the head is affected." Delirium is, indeed, a form of mental derangement, just as much as melancholia or mania.

When the mental functions are disturbed in an acute disease like fever, nobody doubts that they are so because the brain is affected ; but when they are deranged in less acute diseases, like those which ordinarily constitute insanity, many deny that there is anything wrong with the brain at all, when, in reality, the difference is often one of degree only ; for delirium is as closely allied to insanity as one form of ordinary insanity is to another. All in short are symptoms, and all indicate the existence of cerebral disorder—each varying in its features and

character according to the constitution of the individual and the kind and extent of disease existing. The main features of insanity are rarely alike in any two instances, and neither are those of delirium. In delirium, the patient sometimes believes himself threatened by furies and devils, beset by assassins, or a victim to the darkest plots, and he cries aloud with frantic alarm: at another time he breathes curses and imprecations, foreign to his nature, on the head of his attendant; and at a third, clasps his hands in fervent devotion. In insanity, the exact counterpart of this is seen, on a different scale,—accompanied, it may be, with more of consciousness, but still in essence the same. Like delirium, insanity is a symptom of cerebral disease; and hence like delirium it varies in its character and in its intensity according to the nature of the disease and the parts of the brain affected. But, as the nature of the acute disease may still be the same when the form of delirium is different, so may the nature of the slower malady be also the same, although the form of mental derangement is different—in one presenting the phenomena of melancholy and in another those of mania.

Another cause of a similar nature may be adverted to, because, for the same reason, its action on the brain is not denied or doubted,—I allude to the abuse of intoxicating liquors. That wine and spirits in unusual quantity derange the mental manifestations, I need hardly stop to state; and this being the case, it is easy to conceive that habitual excess may at last induce a permanent irregularity of action in the brain amounting to disease. Accordingly, nervous tremors, headaches, fits of maniacal excitement, and delirium tremens, are observed to be not uncommon consequences of over-indulgence.

But it is needless to continue the enumeration of this description of causes, as they are already well known.

As, however, several of them operate in infancy and in decrepitude, as well as in maturity—when insanity is most frequent—it may fairly be asked how it happens that mental derangement should be so much confined to middle life? To this there are two answers:—(1) The foregoing are by no means the most frequent causes of insanity, and consequently proportionally few cases should be produced by them at any age; and (2) there is in infancy and in old age a very material difference in the state of the subjects to whom the causes are applied—a condition which I have already insisted on as influencing the kind of disease produced by any given cause. In early life the brain is so delicate in its structure and so easily injured, that its diseases are active and rapid in their course—demanding energetic treatment for their relief or soon destroying life itself; and accordingly convulsions, or hydrocephalus, and not insanity, are the symptoms which then appear. In old age, on the other hand, the brain has lost so much of its activity by natural decay, and the vivacity of feeling and energy of thinking are thereby so much subdued, that exciting causes of any kind have no longer the same hold, and no longer make the same impressions as they would have made in earlier life; and hence the misfortunes and anxieties which years before would have roused the mind to gigantic exertions, plunged it into the deepest affliction, and involved its organ in disease, now fall upon it comparatively unfelt. And so we are ever carried back to the state of the individual to whom the cause is applied, as a paramount and never to be neglected element in the philosophical and practical investigation of the effect.

The second or functional class of causes comes now to be considered; but, to understand the manner in which they act, we must keep in view the twofold functions of

the brain, and regard it not only as the seat of thought and of feeling, but as the centre of sensation and of nervous energy. This is necessary, because a distinct set of causes is related to each of these divisions. As the centre of sensation, the brain is constantly stimulated and acted upon by whatever is passing in every part of the body. If a breath of wind strikes the face, it is the brain which feels it; or if a drop of rain falls on the hand, it is the brain which apprizes us of the fact. In the healthy state, the intimations sent to the brain of the condition of such organs as the stomach, the intestines, or the muscles, are scarcely attended with consciousness; because, if they were strongly felt, our attention would be entirely and needlessly taken up by them. But if, from disease, an altered action is set up in any part, that moment a disagreeable sensation is transmitted to the brain, compelling us to attend to it. A whitlow on the point of the finger may be so excruciatingly painful as to throw the brain into a state of excitement incompatible with sleep, thinking, or sound feeling, and sometimes even into positive delirium. In like manner, in inflammation of a large joint, the impression transmitted to, and perceived by, the brain will often over-stimulate it to such a degree as to induce violent delirium, which will cease on removing the remote irritation.

The brain, being thus so powerfully acted upon by irritation in the external and more unimportant parts of the body, is naturally still more influenced by sources of irritation occurring in internal organs. When the lungs, the stomach, or the bowels are attacked with inflammation or other kinds of morbid excitement, their natural sensibility becomes exalted, the stimulus sent to the brain becomes excessive, its action is exalted, and acute pain and anxiety are felt, in place of that simple sensation of

comfort which is the only feeling of the healthy state. But it is the brain alone which feels this intense pain, and it is its affection alone that gives rise to the restlessness, anxiety, and depression which characterise these diseases. And I have already shown that the delirium which sometimes follows in these cases, differs almost in nothing from ordinary mental derangement, except in being a symptom of an acute form of disease. The effect of remote irritation upon the encephalon, as the centre of sensation, is so great, that in acute diseases, like inflammation of the bowels, it may happen that the reaction upon the brain gives rise to a state of depression in the nervous system which lowers the force of the circulation and the powers of life, and produces a feeling of inexpressible anxiety, sinking, and faintness. And hence it is but natural to suppose that a lower but more permanent degree of morbid action in the same organs may, in susceptible subjects, at last produce that lower but more permanent form of cerebral disorder from which ordinary insanity arises. It will not do away with this inference to say that chronic affections of the stomach, bowels, and liver often exist for years, and yet cause no disturbance of the brain or mind, but leave the latter gay, lively, and unclouded as ever; for the parallel holds in the acute diseases, and admits of an explanation in both. Independently of the existence or non-existence of predisposition to cerebral disorder and insanity, it is certain that diseases affect different structures in the same organ in different cases and at different times. In deranged digestion, for instance, it is sometimes the mucous coat of the stomach which is morbidly altered, sometimes it is the muscular coat, at other times it is the glands or follicles which secrete the juices, and in some instances it is the nervous plexus and structure, which are more especially the seats of the morbid action.

In each of these cases it is, of course, the function of the structure most affected that is most deranged; and hence, when the nervous portion is in high morbid activity, the brain and nervous system naturally participate more keenly than when only the mucous or muscular coats are diseased. Hence, too, in those long standing cases of hypochondriasis or insanity, in which no moral causes have been at work, and the mental affection has manifestly followed, and not preceded, the existence of the abdominal disease, it is perfectly fair to hold that the nervous structure in a state of excitement was the exciting cause of the disorder of the brain: always keeping in mind, however, that, where a predisposition to disease exists in the brain, the remote irritation will act with much greater force and is more likely to upset reason, than where there is no such tendency.

It has been remarked, and with some appearance of truth, that when cerebral disease springs from irritation in remote organs, such as the stomach or liver, the mental delusions resulting from it have a direct relation to the functions of these organs. Bayle gives a number of cases in which inflammation and ulceration of the mucous membrane of the stomach and intestines seem to have preceded the mental affection, and to have given rise to the dread of poison, to the refusal of food, to melancholy, and even to suicide, as the features of the insanity. Broussais, on the other hand, after laying down as an undeniable principle, that whatever stimulates the brain may become a cause of madness, and calling attention to the fundamental truth that the brain is placed between two orders of stimuli—those which come to it by the nerves of the external senses, and those which it receives from the nerves of the internal viscera—adds that, next to local causes, the most influential are irritations proceeding from the stomach, liver, or duodenum.

The principle of the brain being the centre of all sensation, and of its being more affected by the exaggerated than by the natural irritation transmitted to it from other organs, explains satisfactorily the production of hydrocephalus, convulsions, epilepsy, and other cerebral disorders—by irritation such as by worms in the intestinal canal, by biliary or digestive derangement, or by teething. It is well known, that irritation in the stomach, caused by a surfeit or by dyspepsia, over-stimulates its nerves, and thereby affects the brain so much as to excite headache and incapacity for thinking; and therefore it is not to be wondered at that permanent irritation of the digestive organs should, in persons strongly predisposed to insanity, often induce one or other of the forms of mental derangement.

A good deal of importance used to be assigned to suppression of menstruation or of hæmorrhoidal and other discharges, and to irritation of the sexual organs, as causes of insanity. But Georget, Falret, and Voisin have successfully shown that, in the majority of the instances recorded as examples of this kind, the above phenomena were in reality the consequences, and not the causes, of the cerebral and mental affections. In almost every case, anxiety, grief, apprehension about futurity, change of temper and disposition, and hallucinations of judgment, were observable before any of these secondary symptoms appeared; and it was only from the decided explosion of the maniacal paroxysm corresponding in the order of succession to the disappearance of the discharge or eruption, that the latter came to be regarded as the cause. But having succeeded in establishing this position, these authors went a step further, and, misled by the greater frequency of derangement from the action of moral causes than from irritation in organs remote from the brain, laboured to show that, when minutely analysed, all cases of the

latter description directly resolve themselves into the former. But, in thus denying the efficiency of a morbid state of the digestive and sexual organs in exciting insanity, they certainly commit one error in exposing another, and thus rather bring their sounder and more important views into unmerited discredit.

But, while we thus notice and give due importance to the functional causes connected with the brain as the centre of sensation, it is necessary to observe that their influence is very small, and the cases arising from them very few, when compared to those arising from the brain, considered as the seat of feeling and of thought. For, unless a strong hereditary or acquired predisposition exists, biliary, intestinal, stomachic, or uterine irritation may continue for months, and eruptions and evacuations may be suppressed, and still the brain and mind remain unaffected. Secondary causes like these act first on the weakest parts of the body; and hence the suppression of a customary discharge may produce pulmonary disease in a person of weak or irritable lungs, cerebral disease in one of a nervous or irritable constitution, and stomachic disorder in one of a weak or irritable stomach; while, in a person of a vigorous constitution, the discharge may be quickly re-established, and no bad result follow to the general health.

The functional causes, then, which have a reference to the brain as the seat of feeling and of thought, are not only the most frequent and most important, but in the strictest sense *functional.* These are generally called moral causes; but if we are unacquainted with mind separate from the material organisation, and if every condition of mind is in this life as inseparably attended by a corresponding state of the brain as every act of vision is attended by an affection of the optic nerve, then it

becomes conform to reason to hold, that every aberration of mental manifestation is the consequence of diseased action of its organ, and not of impaired efficiency or disordered function in the immaterial spirit. The term moral cause has a reference to disease in the mind itself, and was used by those who subscribed to this hypothesis. The term functional has a reference to disorder in the action of the organs of mind, and is therefore more proper for our purpose.

It is not difficult physiologically to understand how functional exercise becomes an exciting cause. When we use the eye too long, too intently, or in too bright a light, its vessels and nerves become too much excited, and a sensation of fatigue and pain arises. If we still continue its exercise, the excitement increases, the vessels become more and more distended with blood, give to the membranes what is called a blood-shot appearance, the surface of the eye becomes suffused with tears, the eyelids sore, and a feeling of tension and weight extending to the forehead is felt. If we now cease to use the eye, the irritation gradually subsides, and the healthy state returns; but if we continue to look intently, or resume our employment, before the eye has regained its natural state by repose, the irritation may become permanent, and disease, followed by weakness of sight or even blindness, may ensue.

In the same way, if there be a part of the brain by means of which the mind feels the emotion of fear, it is easy to conceive how violent and long-continued action of that part should first induce functional aberration, characterised by unusual energy and vivacity of the corresponding feeling, and ultimately give rise to permanent disease or to change of structure in the organ, which will render its healthy action for ever after impossible. The mental phenomena attending such a process would be

first extreme anxiety, apprehension, or terror from inadequate causes, and afterwards permanent melancholy and depression of mind, if the irritation in the organ was of a more durable character. But if the morbid change was so great as to impair the structure, a suppression of the feeling of fear, and a consequent incapacity of acting with caution and prudence, would be the consequence.

In treating of regular exercise of the brain as a condition of its healthy action, I mentioned that activity of every part of the body increases the blood supply and stimulates the nerves to higher action, to enable it to meet the increased demands made upon it,—that it requires repose to allow the excitement to subside,—and that, if the exercise is kept up too long or is too violent, the excitement then becomes morbid, and will no longer subside from mere repose; and in noticing the consequences resulting from infringement of this law, I added that over-excitement would fall to be considered among the active or functional causes. The identity of these with what are termed moral causes will be obvious on the above principles. If an individual, naturally timid and of an irritable constitution, be exposed to sudden and appalling danger, he may become insane, and the fright, in common language, is called the moral cause. Physiologically speaking, however, we would say that the danger is the natural object which stimulated the injured organ, just as light is that which stimulates the eye; and that the over-excitement of function thus produced has deranged the healthy action of the organ. In such a case, we can understand a material organ, once inordinately excited, continuing to act irregularly to-morrow, and the next day, and the next again, until its health be re-established; and supposing that the function of the organ is to manifest cautiousness, we can conceive terror, panics,

and anxieties continuing during all that time to occupy the mind—long after the external danger is withdrawn; whereas the whole phenomena become unintelligible on the principle of the danger, as a moral cause, having affected the immaterial principle itself. It would be an extraordinary notion to imagine an immaterial principle going on, for instance, fearing for days or weeks after the danger had vanished, or being still alarmed at a danger six months old. We can conceive a physical organ, once deranged, going on in a state of disordered function for weeks or months, until restored to health, just because it is in the nature of organs to be thus affected; but to comprehend the immaterial mind to be in this condition is impossible.

Functional excitement of the cerebral organs may arise in two ways, either from internal activity, or from the stimulus of external objects. Sometimes an individual falls by insensible degrees into a train of feeling or of thinking which at first is characterised only by its intensity and frequency, but gradually increases in both of these respects until it becomes confirmed monomania. Thus a man of a vivacious temperament and mechanical genius may commence with great ardour constructing some piece of mechanism; he may then conceive the idea of inventing perpetual motion, and proceed with increasing interest and energy in his pursuit till his conceptions become bewildered and his reason displaced—this idea alone occupying his mind. According to the principles already explained, this will occur chiefly where an hereditary or acquired predisposition exists. The explanation is, that the organs of the constructive talents being naturally in excess in point of development had at all times a tendency to preponderating action; that the first stage of this action was accompanied merely by great mental earnestness and vivacity in the pursuit; but that

this functional activity, long and energetically operating in organs possessing an imperfect constitution, at last degenerated into settled functional derangement, or in other words into a form of monomania.

Morbid excitement of the cerebral organs, from the stimulus of external objects or relations, is still more common. Whatever rouses deep emotion, or excites intense and continuous thinking, produces the same kind of excessive and irregular action as the above. Wealth and mercantile speculations are objects which stand in this relation to many of the feelings, and which stir up intellect to devise means for their acquisition and success. Keeping this in view, we can easily understand how loss of fortune, anxiety about the fate of speculations, &c., may excite derangement of the mental functions by disturbing the healthy action of the brain.

Much alarm has unnecessarily been expressed by seriously disposed persons at the assertion that insanity can ever be caused by indulgence of devotional or religious feelings, to whatever excess these may be carried; and no little obloquy has been thrown upon observers whose experience has compelled them to state the fact. But religion rests on too firm a foundation to require any sacrifice of truth and candour to supposed expediency. And if, in any circumstances, the exercise of our devotional feelings seems to bring on the loss of reason, it is surely not only allowable but a positive duty for the professional writer, under whose cognisance these things occur, to investigate accurately and state fearlessly the conditions under which he has seen them happen, that others may be preserved in time from a similar affliction.

The situations in which the religious feelings most frequently become a cause of cerebral disease and of insanity

are twofold. The first is when an individual combines an hereditary predisposition to insanity with an endowment of the devotional faculties naturally so preponderating, that their activity constitutes the greatest source of pleasure—while the other sentiments and propensities are so moderately possessed, that, in his gratification of the former, he is habitually prone to forget and omit those active duties towards society, his neighbours, his family, and himself, which, during his stay among the living, it is one great object of religion to direct and enforce. In such a case, experience has proved that any sudden religious excitement—listening for a season to a gifted but injudicious or eccentric preacher, or dwelling with deep interest on disputed doctrinal points tending to excite the emotions, or in short any cause which keeps for a length of time the already predominating faculties and their material organs in unusual and intense activity —may so far rouse the hereditary tendency into action, as to induce cerebral disorder, attended with every symptom of mental aberration.

If, then, it be true that excessive activity and exclusive indulgence of the devotional feelings may induce cerebral disease and insanity, particularly in susceptible subjects, we ought, instead of attempting to conceal the fact from a false fear of bringing religion into danger, to make it generally known, so that the evil may be avoided by those who might otherwise inadvertently fall into it. When fairly examined, indeed, the danger is seen to arise solely from an abuse of religion, and the best safeguard is found to consist in a right understanding of its principles and submission to its precepts. For if the best Christian be he who in meekness, humility, and sincerity places his trust in God, and seeks to fulfil all his commandments, then he, who exhausts his soul in devotion and in prayer, and at the same time finds no

leisure or no inclination to attend to the active duties of his station, and who, so far from arriving at happiness and peace of mind here, becomes every day the further estranged from them, and finds himself at last involved in despair and disease, cannot be held as a follower of Christ, but must rather be regarded as the follower of a phantom which assumes the aspect of religion. When insanity, then, attacks such a person, it is obviously not religion that is its cause; it is only the abuse of certain feelings, the regulated activity of which is essential to the right exercise of religion. Against such an abuse, a sense of true religion would in fact have been the most powerful protection. And the great benefit to be derived from knowing this is, that whenever we may meet with such a blind or misdirected excess of our best feelings, in a constitutionally nervous or hereditarily predisposed subject, instead of encouraging its exuberance by yielding it our respect and admiration and even attempting to imitate its intensity, we should use every effort to temper the excess, to inculcate sounder views, and to point out the inseparable connection which the Creator has established between the true dictates of religion and the practical duties of life,—a connection, it may not be superfluous to add, which it is impossible to pourtray or enforce more strongly than is done in the lives both of the Founder of Christianity and of His disciples. Nowhere is it more clearly demonstrated that true religion is intended in this life to be the guide of conduct, and that it is not sent to supersede the active discharge of our social duties or to encourage us to pour out our minds in mere emanations of feeling, without at the same time giving positive evidence, in the amelioration of our lives, that we have been really benefited by the contemplations in which we have been indulging.

Again, when the mind is perplexed by conflicting

doctrines, the brain frequently becomes so far disordered as to produce insanity; and this is easily intelligible. The interests of religion exceed all others in weight and magnitude; and it is therefore quite natural that a mind deeply imbued with a sense of their importance, and at the same time distracted by opposing tenets, should, in the attempt to reach the truth and to reconcile all contradictions, become excited to an intense degree, giving rise to a corresponding overaction in its corporeal organ, which may ultimately pass into a state of disease. The merchant or speculator often passes sleepless nights and restless days, looking forward to impending loss, and we consider it nothing unusual to learn that a man of keen passion has in such circumstances become deranged from excess of cerebral excitement. But to any one who duly appreciates religious truth, the merchant's loss or the speculator's disappointment will seem as nothing compared to the value of religion. If, then, the lesser cause may so readily induce cerebral disease, is it not still more likely that the greater and more important may also overset health in a susceptible subject?

From what has been said, it will be sufficiently apparent that religion, when once understood, is rather a preventive than a cause of insanity; but that, during the period of doubt, the excitement its interest gives to our highest feelings may, when it is not moderated by reason or directed by the prudent counsel of a friend, overpower the strength of the cerebral organs.

## CHAPTER V.

### SYMPTOMS OF MENTAL DERANGEMENT.

It is a common occurrence for medical men to be called into a court of law, to determine whether an individual ought to be considered sane or insane. Their ability to give a correct opinion depends upon the extent of their acquaintance with the healthy and the morbid manifestations of mind, the chief conditions by which these are affected, and the signs that reveal the existence of insanity. So indefinite, however, is the knowledge of all of these topics, that, although character, fame, fortune, liberty, peace of mind, and almost every motive by which man can be influenced, may be involved in the decision, there is scarcely any department of medical science in which greater confusion or variety of opinion prevails.

Hitherto the chief impediment to the advancement of our knowledge of insanity seems to have been the want of a physiological system of mental philosophy. In vain will the acutest genius continue to observe and meditate on the phenomena and seek to discover the laws of mind, so long as the most important of all its modifying influences, viz., its connection with a material organ, is overlooked; and in vain, in studying its pathological states, shall we seek assistance from the works of philosophers, who have paid no regard to, and are unacquainted with, the effects of the healthy organisation.

In treating of the derangements of other functions, as

of sight for instance, instead of one general description of a morbid state called disturbed vision, we look at the variety of diseases from which they originate, give a definition of each, and regard the disorder of sight as a consequence common to them all. We have thus definitions of ophthalmia, of iritis, of cataract, and of the various other affections to which the eye is liable. If, in like manner, in treating of the derangements of the cerebral and mental functions, we attend to the variety of morbid states which produce them, we shall perceive at once the impossibility of constructing a general delineation of a single morbid condition, called deranged mind, and recognise the necessity which exists of giving a distinctive definition of each of the diseases from which it arises. Instead, therefore, of following the common practice, I shall only state generally, that the existence of insanity implies morbid action in one, in several, or in the whole of the cerebral organs, and, as its necessary consequence, functional derangement in one, in several, or in the whole of the mental faculties which these organs subserve, and proceed to consider by what symptoms these conditions may be recognised.

In investigating the nature of insanity, the first caution to be observed is not to confound disorders of mental functions with natural qualities, which sometimes strongly resemble them. Many men in the full enjoyment of health are remarkable for peculiarities of character and idiosyncrasies of thought and feeling, which contrast strongly with the general tone and usages of society, but they are not on that account to be held as insane, because the singularity for which they are distinguished is with them a natural quality and not the product of disease. From the very unlikeness of their mental manifestations to the modes of thinking and feeling of other men, such persons are in common language

said to be eccentric. It is true that, on the principle already explained of excess in size of some organs over the rest being favourable to the production of insanity, eccentricity involves, all other things being equal, a greater than usual liability to mental derangement; but still it is not mere strangeness of conduct or singularity of mind which constitutes its presence. It is the manifest departure, without an adequate external cause, from the state of feeling and modes of thinking usual to the individual when in health that is the true feature of disorder in mind, and the degree at which this disorder ought to be held as constituting insanity is a question of another kind, on which we can scarcely hope for unanimity of sentiment and opinion. Let the disorder, however, be ascertained to be morbid in its nature, and the chief point is secured, viz., a firm basis for an accurate diagnosis; because it is impossible that such derangement can occur, unless in consequence of or in connection with a morbid condition of the organ of mind; and thus the abstract mental states, which are justly held to indicate lunacy in one, may in another, speaking relatively to health, be a strong proof of soundness of mind. A brusque rough manner, which is natural to one person, indicates nothing but mental health in him; but if another individual, who has always been remarkable for a deferential deportment and habitual politeness, lays these qualities aside, and, without provocation or other adequate cause, assumes the unpolished forwardness of the former, we may justly infer that his mind is either already deranged or on the point of becoming so. Or, if a person, who has been noted all his life for prudence, steadiness, regularity, and sobriety, suddenly becomes, without any adequate change in his external situation, rash, unsettled, and dissipated in his habits, every one recognises at once in these changes evidences of

the presence of disease affecting the mind through the instrumentality of its organs. It is therefore, I repeat, not the abstract act or feeling which constitutes a symptom—it is the departure from the natural and healthy character, temper, and habits that gives it this meaning. In judging of a man's sanity, it may consequently be as essential to know what his habitual manifestations were, as what his present symptoms are. In investigating stomachic affections, we do not compare the variations of appetite or the strength of digestion with any fixed or imaginary standard, but always judge of their value as symptoms in relation to their former state; because the moderate appetite which is natural to one constitution, occurring in a person who had previously been remarkable for keenness and power of digestion, would justly be considered as an indication of loss of health; while the voracious appetite natural to a third would, in a different constitution, be as sure an index of stomachic disease.

The same principle holds, indeed, not only in regard to mental phenomena, as indicating the condition of their organs in the brain, but also in regard to every part and every function of the body whether animal or mental. In ordinary diseases it is so familiarly acted upon that it would seem like affectation to give it the prominence in regard to mental affections which I am endeavouring to do, were it not that some experienced physicians have expressly advocated a different doctrine, and represented the mind of the physician as the standard by which the sanity of the patient ought to be determined. It is, for instance, solely under the guidance of this principle that the physician acquainted with the peculiar habits and constitution of a particular patient often looks with indifference at the occurrence of a symptom apparently of an alarming character, because he knows that in that patient

it is less a sign of disease than a natural appearance; and it is under its guidance that he looks with calmness on variations in the state of the pulse in one patient, which, occurring in another, would excite his liveliest apprehensions.

But, while we give due weight to changes of disposition and of character, as symptomatic of a morbid condition of the organ of the mind, the reader must not infer that I regard every such deviation as allied to insanity. There are many situations in which a change indicates, not disease, but an improvement of our moral nature; and in which also particular mental qualities are kept for a time in a state of unusually prominent activity, by the mere force of external excitement, without a trace of morbid action, and which it would consequently be ludicrous to regard as indicative of derangement. But in these cases the deviation from the preceding mental state is unaccompanied by a single symptom of disease, and is exactly proportioned in extent and permanency to the external causes which have brought it about, and to the constitution on which these have acted; whereas, in mental derangement, the deviation from the natural habits and modes of thinking and feeling is either altogether disproportionate to the apparent external cause, or is accompanied by symptoms unequivocally indicating the coexistence of disease. And, as our exposition is intended not to erect the mental symptoms into the sole signs of insanity, but to show by what standards they ought to be estimated, and the relation which they bear to the corporeal changes, I trust that no one will ascribe to it any other meaning.

Although the symptoms of insanity are in many instances such as contrast with the natural character or with some of its principal features, they are not always

of this kind, for disease in any part may affect intensity as well as quality of function,—both, however, equally constituting departures from its ordinary and healthy condition. In this way we meet with examples of mental alienation, of which the chief symptoms are merely an exaggeration as it were of the natural qualities of the individual, while we also meet with many in which they form a perfect contrast. In treating of disproportionate development of the different parts of the brain, as predisposing to disease, in virtue of the tendency to inordinate action which all unusually developed parts possess, I took occasion to explain physiologically the process by which excessive healthy activity, long kept up and frequently recurring in the same organ, is gradually converted into morbid and involuntary irritation, attended with an exaggeration both in degree and in duration of the corresponding function as its characteristic sign; and it is important that the reader should keep the principle in mind, as it admits of very numerous and useful applications. It is from this cause that men of partial genius and unequal endowment of mental qualities, especially if possessed of an irritable constitution, are more prone to insanity than those who are fortunate enough to possess a more harmonious cerebral constitution.

In practice, we meet with individuals of irritable or predisposed constitutions and of unequal developments of brain, who have become insane from the great activity of their predominant organs having, by the very stimulus of constant exercise, passed beyond the limits of health, that is, into a state of disease, and whose insanity consists, consequently, more in an exaggeration of, than in a contrast to their natural qualities and dispositions. It is more difficult to draw the line of distinction between healthy and diseased manifestations in such cases, because the change from the one to the other is gradual and

sometimes imperceptible, but in the extreme points it is abundantly obvious.

When properly analysed, however, all these aberrations are found to be as certainly mere departures from the natural state of the mental functions, as when the change is one of quality. A person of large benevolence, for example, will, in health, be kind and compassionate, but in disease he may be either cold and indifferent or generous to prodigality. In all such instances, therefore, the chief circumstance of practical value is the indication of a departure from the previously healthy condition of the faculty or faculties in which the change has occurred; and the consequent necessity of deciding upon the patient's sanity from a comparison of his present manifestations with his previous healthy character and habits, and not with any abstract standards or with the modes and habits of other individuals differently constituted from himself.

Supposing this view of the circumstances which indicate the existence of insanity to be correct, what encouragement does it hold out to us to attempt the enumeration of all the mental symptoms observed in its progress and varieties? Most assuredly very little, either on the score of possibility or utility. How many volumes would it require to delineate all the varieties of character which present themselves in persons of sound mind? And how many more would it require, were we to add the descriptions of the thousand and one varying hues which appear even in one deranged mind, and to point out the distinction between these and the healthy manifestations? Fortunately for us, the attempt, even if successful, would be as useless as it is in reality impracticable. The proper and only way to acquire a knowledge of the mental phenomena indicative of

insanity, is, as we do in regard to all other organs, first to ascertain the healthy functions of the primitive faculties of the mind; secondly, to determine the previous relative strength and mode of action of the various faculties in the individual under examination, as habitually manifested during health; and, lastly, to hold every departure from that standard, which is permanent in duration, or is violently disproportioned in degree to the exciting cause, and is accompanied with other symptoms of disease, as *ipso facto* a sign of a greater or less degree of morbid action in the brain and nervous system and of mental derangement. I do not mean to say that every shade of such excitement is to be held as insanity. Very far from this. I think infinite mischief is done by treating a man as insane who is only in a state of temporary nervous irritability, which may be removed by judicious and kind treatment, but which may also be converted into insanity by inconsiderate harshness. I only mean to say that the condition of such a person is morbid, and that it may require management to save him from insanity, if a predisposition exist, or a strong external cause occur to irritate or annoy him. On this view, whenever it happens that, along with evident signs of bodily disease and without the existence and continued action of any adequate external cause, the temper, dispositions, or habits of thinking of any one are permanently altered from their natural state, I hold the mind of that individual to be thereby and to that extent disordered; and, if these modes of thinking and feeling be altered to such a degree as to communicate impulses which affect the conduct of the individual, or to present distinctly erroneous views in too plausible a light to be set aside by his own understanding which would previously have been able at once to perceive their falsity, then the derangement of the mental powers becomes such as we are accustomed to designate by the name of insanity.

In studying the pathology of insanity, therefore, it is throwing away time and labour, and even creating fresh difficulties in our path, either to devote much space to the description of the abstract mental symptoms, or to attempt to found any useful nosological classification on so fleeting a basis—it being agreed on all hands that the mental features are in themselves innumerable and ever changing. Esquirol, accordingly, in alluding to the division of mental disorders which he has adopted, and which is founded on the mental symptoms, candidly admits that "Insanity takes all these forms successively and alternately; monomania, mania, dementia, alternate and replace each other in the course of the same disease in the same individual." And almost in the same page he states the converse of this, and says, "these forms" (monomania, mania, &c.), "being common to many mental affections of very different origin, nature, treatment, and termination, do not characterise the species." All practical writers, indeed, are of one opinion on this point. Dr Burrows, for example, not only regards all such classification of mental disorders "as worse than useless," but unhesitatingly expresses his conviction, that "the long prevailing error of studying the mental to the neglect of those corporeal phenomena which are almost always cognisable," has been "the greatest obstacle to the knowledge of the pathology of insanity." Therefore, although spirited delineations of the more striking hallucinations of the insane are often intensely interesting to the general reader as well as to the student of human nature, I shall avoid them as unnecessary, and rather fix attention on the consideration of the nature of the corporeal disorder of which insanity is an effect. All the evidence yet adduced and all the phenomena hitherto observed go to prove that disorder of the mental organs situated in the brain constitutes the disease, and that the

mental derangement is the mere effect or indication of the existence of that disease; and, therefore, if ever we shall succeed in drawing a line of distinction between the different kinds of insanity, it will be by the aid of characters which mark the different kinds of cerebral affections, and not by any information derived from the mental phenomena alone.

The symptoms which appear in lunacy seem at first sight countless in number and intricate in connection, beyond the possibility of analysis. But if we keep in view the different parts of which the brain and nervous system are composed, the functions which each performs, and their relations to each other and to the rest of the body, we shall not only perceive the source of the indescribable multiplicity of phenomena in the innumerable combinations into which so many parts may enter, but have a leading principle to guide us through the confusion which shall render all such details unnecessary.

In treating of the symptoms of mental alienation, I shall mention first those which are connected locally with the head and brain; secondly, those which spring out of the relations existing between the brain and remote organs; and, lastly, those which proceed directly from disturbance of function in the parts of the brain subserving the primitive mental powers.

The local symptoms which accompany insanity require no particular enumeration. Pain, often confined to one part, a feeling of confusion, weight, or constriction in the head, noise in the ears, flashes of light, throbbing of the arteries, flushing, giddiness, a peculiar expression of the eye, dulness or other alteration of hearing, of smell, of

taste, and often of sensation, are commonly met with. But, in regard to such of them as are known only through the testimony of the patient, it is necessary to remark that during the acutest period of his illness he may deny their existence altogether, and yet on recovery or in convalesence almost shrink at the recollection of what he suffered from them. Silence at this period, therefore, is not to be considered as a proof that they are not present and felt by the patient.

From the details already given in discussing gastric irritation as an exciting cause of insanity, little will require to be said in regard to the second class of symptoms, or those which arise out of the relation in which other organs stand to the brain, as the centre of sensation and the fountain of nervous energy. I then noticed the striking remark of Broussais, that moral causes frequently produce their first visible effect on the abdominal viscera—the brain through which they act and the mental functions which it executes remaining unaffected, till by sympathy with digestive irritation they also begin to suffer; and, *vice versa*, that gastric derangement frequently shows itself first by its effects on the brain and mind, and by producing restlessness and irritability of temper or depression, before the stomach itself indicates any disturbance. This, however, happens only when the organ secondarily affected is either constitutionally weak or otherwise prone to disease. And, therefore, although digestive derangement does occasionally precede and produce the mental affection it is yet generally found, on careful inquiry, that the patient has been subjected to some moral anxiety, has exhibited unequivocal symptoms of cerebral disturbance, and has been conscious of the involuntary predominance of certain feelings or ideas, which he could not drive from his mind,

before beginning to complain of want of appetite, nausea, bad taste in the mouth, uneasy sensations in the epigastrium, flatulence, and other symptoms of stomachic disorder; and that the increased mental discomfort subsequent to these has been merely an aggravation, from reaction of the stomach upon the brain and nervous system, of a previously existing mental affection. Even in acute cerebral disease, what is more common than to find nausea and vomiting precede by several days any symptom bearing a direct reference to its true seat?

A curious reciprocity of influence is frequently observed between the several passions and the visceral irritations which they excite. "For example," says Broussais, who notices this fact, "if, on the one hand, fear and surprise cause palpitations of the heart; so, on the other, do palpitations from a physical cause excite the feelings of fear and surprise; and the same is the case with the stomach. All disagreeable moral impressions, accompanied with a tendency to anger, make it suffer; and, in like manner, derangement of the stomach from a local cause is apt to induce sadness and impatience." Although it may be doubted whether irritation of organs like the stomach, heart, or uterus, excites corresponding or *answering* mental manifestations, so frequently, as the above statement would lead us to believe, it is quite certain that a relation of some kind subsists between them; and a more accurate acquaintance with the circumstances by which that relation is modified would be of much practical utility.

In considering both these and the stomachic symptoms, it ought never to be forgotten that irritation in the brain excites secondary irritation in and consequently disturbs the functions of that particular organ, which is naturally most predisposed to assume unhealthy action; and, on

the other hand, that primary irritation in a remote organ rarely affects the brain so as to disturb the mental functions, unless in a subject constitutionally predisposed to cerebral disease, or unless the irritation be of a severe and permanent kind—the cerebral affection, however produced, being in all cases the *sine qua non* or essential constituent of mental derangement.

The third and most important class of symptoms includes those directly originating from the disturbance of function of the cerebral organs. It consequently comprehends all manner of morbid sensations, false perceptions, hallucinations of feeling, perversions of affection and of modes of thinking, and, in short, everything relating to the mind; and therefore it presents a mass of phenomena of almost endless detail, which can be understood only by the aid of a sound physiological mental philosophy.

Keeping in view that derangement of function is neither more nor less than a departure, either in degree or in quality, from its natural and healthy condition, we shall first notice the abnormal sensations most frequently met with as symptoms of insanity. The joint action of nerve and brain is necessary to sensation, and as a consequence the function may suffer from causes affecting one or other or both. Like the mental functions, those of the nerves may be diminished, exalted, or perverted by disease.

If the first is the state, diminished sensibility to stimuli (such, for instance, as great cold or great heat) appears as the symptom.

If the nervous functions be exalted, then sensibility becomes acute, and moderate cold, slight wounds, accidental injuries, and every sort of external stimulus, are attended with unusual pain and irritation of mind.

If on the other hand the nerves are perverted in their mode of action, the symptoms may then be strange sensations, as of animals creeping under the skin, or of the legs being made of butter or of glass, causing the patient to keep from the fire and out of harm's way, for fear they should melt or be broken. From the same cause—particularly when the parts of the brain more immediately subserving the external senses are simultaneously affected with the nerves—the sense of taste, hearing, sight, or smell may be curiously perverted. Odours or tastes may then be perceived which no healthy organs can recognise. When sight is affected, flashes of light, insects, or mists may seem to intervene and obscure the clear perception of the objects looked at. Hearing, however, is the most frequently deranged of all the senses, being sometimes very obtuse, and at other times so active as to give rise to all sorts of imaginary sounds. In all these cases it is not the mere phenomenon, but the departure from the healthy state of the function, that gives it the character of a symptom and bestows on it its diagnostic value.

The disturbances of muscular motion in insanity are various. Sometimes muscular power is greatly excited, and the patient can with difficulty be restrained by the combined efforts of several men. At other times the most perfect inertness and aversion to move are observed, and the patient preserves for hours, and even for days, not only the same situation but the same bodily position. At other times, again, incessant activity and restless agitation are noticed, and the patient walks to and fro every day for many successive hours, taking many times the amount of exercise that in health would have fatigued him almost beyond endurance. The dependence of these symptoms upon the condition of the nervous system will be apparent to every one who recalls for a moment the

bodily agitation, impatience of one position, and increased muscular power, consequent upon a fit of anger or of mental excitement.

Hunger and thirst, being mental qualities, are supposed on good grounds to have special cerebral organs—disturbance of the functions of which would explain all the symptoms of which these appetites are the source. Sometimes the craving for food is urgent and incessant and the thirst great. At other times both are too feeble to stimulate the patient to guard against want and abstinence; occasionally the appetite and taste are depraved and the most nauseous articles are devoured with avidity—each variety of symptoms marking a departure from the usual or healthy state, but presenting no other fixed or common feature.

It is objected that hunger, or the desire for food, is referable exclusively to the state of the stomach. Facts, however, are against the objection. A certain condition of the stomach gives rise, no doubt, to the sensation of hunger, just as a certain condition of the eye does to that of light, but the sensation itself takes place in both instances in the brain. If we never experienced a desire to eat or drink, unless when the stomach required food or liquid, disease and intemperance would play a smaller part in the drama of life than they actually do, and the cultivators of medical science would have a narrower field in which to employ their labour. Is it the stomach, or the brain and mind of the child, which sees the display in a confectioner's window, and excites the flow of the saliva in the mouth, and feels the desire to partake? And is it the stomach or the brain which, although satiated with the roast meat and boiled meat, sees and craves for the pudding and the pie, when they make their unexpected appearance? If the stomach were the sole seat of appetite, we should never witness the

apparent anomaly of good digestion existing without any desire for food, or great craving without the power of digestion; and yet both of these states are common in insanity.

The symptoms arising from morbid action of the cerebral organs, subserving what are usually termed the internal faculties of the mind, are however the most numerous and interesting. When disease affects any one of these organs and disturbs its action, it necessarily alters the state of the mental functions which that organ performs, and the power of feeling or faculty of thought connected with it becomes deranged; and when disease disturbs the action of the whole brain, it alters the state of all the mental functions, and the whole mind becomes deranged. The mental symptoms of insanity must then be neither more nor less than the disturbance of the functions of one, or of several, or of the whole of the cerebral organs; or in other words, derangement from the healthy state of one, of several, or of the whole faculties of the mind. Here the essential circumstance, be it observed, is the disturbance from the usual healthy condition, and not the mere fact of the faculty working in a certain way.

Having found the origin of all the mental symptoms in diminution, perversion, or exaltation of some one or more of the primitive faculties of the mind, it becomes an easy matter to discover the source of their very partial and limited range in one case, and of the variable and multifarious phenomena and sudden transitions apparent in another. If, as sometimes happens, only one or two of the mental powers are implicated, the patient is insane only on feelings or ideas related to these, remaining sound as to the objects and functions of all the other faculties—and this state constitutes what is called mono-

mania. If the moral sentiments as a group are involved in the disorder, then the derangement is characterised by excited, diminished, or perverted moral feeling—constituting in one form what is called religious melancholy. Another form of derangement, from the same cause, is melancholy from self-accusation, fear of eternal punishment, and morbid scrupulosity. If the moral and religious feelings are perverted, then blasphemy and imprecations take the place of the devotional and benevolent tendencies previously existing. If, on the other hand, the propensities are implicated, then passion, cruelty, unceasing mischief, or furious mania, combined perhaps with a considerable amount of sound reason and moral sense, may be observed—in which state the patient, conscious of the danger to which others are exposed from the ungovernableness of his passions, and of the difficulty of resistance to their impulses on his own part, may sometimes retain sense and feeling enough to warn the bystander to provide for his safety by flight.

Lastly, if all the organs of the brain are disordered, all the powers of the mind suffer. Natural feeling, moral restraint, and sound judgment are all upset, and the patient raves blasphemy and folly by turns; or passes, in the course of a short time, through all the phases of outward character, from the tumultuous agitation of infuriated rage to the deepest dejection of melancholy; and it is in such circumstances that the remark of Esquirol that mania, monomania, melancholy, and dementia succeed and alternate with each other—the disease itself remaining the same—is especially exemplified.

From the preceding observations, it will be seen that it is impossible to overrate the importance of attending in time to all morbid deviations from the natural character, which do not give way on the disappearance or removal

of the external cause which produced them. Their continuance in such circumstances can be the effect of nothing but diseased action; and it is a trite remark that a complaint may be easily cured when proper means are had recourse to at its commencement, which at a later period may cost much time and labour to remove, if it do not, as too frequently happens, prove utterly incurable. Long before an individual becomes manifestly insane, his habits, his tastes, and his passions change. If, therefore, we observe a father of a family, who in his usual condition enjoys his home, delights in the society of his family, and communicates with each and all of them in affectionate confidence, become without sufficient external cause either suddenly or gradually estranged from his domestic circle, shy, silent, or suspicious, sharp or irritable in temper, we may rest assured that that man is a prey to morbid action in the brain, however clear his intellectual powers may remain and however well he may conduct his affairs. Another individual may indeed display equal suspicion, equal irritability, and equal displeasure with his family; but if such be his natural disposition, or if causes exist to excite such feelings, the exhibition of these qualities may prove, not his insanity, but his health. It is the change without external cause from the ordinary mental state that constitutes disease; and therefore, if, along with bodily symptoms, the latter were to become without any external motive unnaturally mild, open-hearted, and obliging, we would begin to suspect the approach of cerebral disturbance in him.

Where, as in monomania, only one or two faculties are disordered, the rest remaining substantially sound, the patient may at first be conscious of the aberration of feeling or of thought, and may employ all his powers to suppress and conceal the slightest appearance of its exist-

ence. Sometimes he accomplishes this so successfully, that he goes on for months unsuspected except by very close observers; and then, losing command of himself under some casual excitement, gives full and sudden vent to his delusion in an act of manifest insanity. This often happens in monomania; and as the act itself may be either a mere explosion of folly, of harmless passion, or of unaccountable apprehension and hatred, or a direct infraction of the laws of morality such as the perpetration of murder without an external motive, it behoves us to be on our guard against condemning as a crime what is in truth a symptom of insanity, and to be careful not to add the cruelty and ignominy of such condemnation to the already severe visitations of disease.

From the power of long suppressing the appearance of aberration in conduct and in conversation, arises the acknowledged greater difficulty of curing monomania than mania. The symptoms are often so long concealed, that the disease has taken deep root before it is discovered; and even when it is found out—from the stigma attached to the very name of insanity—there is often much difficulty in subjecting the patient to the necessary treatment. It is always right to give careful attention to changes of character which appear to be morbid, even though they are slight, and not to wait for their development into acknowledged lunacy.

Changes from the natural state of the nervous functions are observed in affections which do not involve insanity, and it is proper to refer to them to show how closely all forms of cerebral and nervous disease are allied to each other. Alteration of character does not always imply what is generally called derangement of mind, even when the alteration results from morbid cerebral action. The changes of character and disposition induced

by cerebral disease are usually to the worse,—in other words, the propensities manifest morbid excitement more frequently than the moral sentiments; but such changes are not always to the worse. Cases occur in which the higher faculties of our nature shine out under disease with a brighter lustre than was observable during health, and when this happens it may not be thought either right or necessary to call it insanity.

In civil and in criminal trials, physicians have been called in to fix the line of demarcation between insanity and the minor forms of mental disturbance; but, in practice, the attempt has never been attended with great success. If the principles we have been advocating be true, this must ever continue to be the case. In regard to no organ of the body, however well we are acquainted with its structure and functions, can we always chalk out a marked line of distinction between the various morbid affections to which it is liable. The slighter kinds run by such imperceptible degrees into the more permanent and severe, that we are unable to determine day by day the point at which the malady stands, and it is often by the event alone that we are enabled to form an accurate opinion. Many cases are, no doubt, so unequivocally marked that we have no hesitation in determining the extent and nature of the disease. But it is not always an easy matter. For, at one time, an affection, apparently of a trivial kind, suddenly assumes the destructive energy of a deadly disease; while at another, an affection, which has commenced with every mark of severity, changes into a state scarcely deserving the name of morbid. We observe, also, that all the organs are liable to disorders of the most widely different periods of duration. Sometimes, as in an epileptic fit, cramp in the stomach, palpitation of the heart, or ordinary syncope, the affection is sudden

and severe but of brief duration. And at other times, as in tabes mesenterica or phthisis, the evil is of little apparent urgency, but is nevertheless as deadly in its results as it is slow in progress.

If we view the brain and nervous system as the material organs whose functions are to minister to sensation and to motion, and to manifest the various faculties of the mind, and if we consider the morbid condition of the organs—not the consequent disturbance of function—as constituting the disease, we shall advance in our inquiry with greater consistency, certainty, and facility than if we had no such principle to guide us. The brain being a constituent part of our organised frame, and subjected to all the laws of animal life exactly as the other parts of the system are, its morbid affections present precisely the same characteristics—modified of course by its peculiarity of structure and function, but still essentially the same—and it is very important for the proper understanding of its diseases that this analogy should be kept in view. In the dulness and inactivity of mind which now and then beset all of us, we have the counterpart, as regards the brain, of the impaired appetite and digestion, which as regards the stomach, often come on without apparent cause and again disappear. The gradation, indeed, from the mere accidental ill-nature and depression attendant on a "fit of bile" to the boisterous passion and insane reasoning of the maniac, is gentle and unbroken; and it is frequently as impossible to detect the points of transition from one stage to another, as we know it to be in affections of other parts. One patient will ask advice, who has no complaint to make, except that of being unusually cross and impatient. This is a low degree of cerebral disorder, depending perhaps on intestinal irritation, and in a few days it may disappear. Another, in addition to crossness and impatience, may complain of headache,

restlessness, unfitness for labour, and depression of spirits, and in two or three weeks be restored to health by proper treatment. A third, after passing through these states, may become perfectly miserable in his feelings—disgusted with business and even with life—yet be able to go through his regular duties, and after the lapse of months be gradually restored to his former health. A fourth may pass through the same round as the third, but, instead of recovering, may after a time lapse into suicidal melancholy. A fifth, under strong excitement, may give way to manifestions of passion and singularities of thought which we are accustomed to meet with only in insanity, and yet recover himself when the cause has ceased to operate. Or, if he is highly predisposed to insanity, and if the excitement has been very powerful, he may pass suddenly into a state of decided madness. A sixth, from a fracture of the skull or the invasion of fever, may pass almost at once from tranquillity and rectitude of mind into violent delirium. But no one can pretend to point out the exact line at which the one of these states merges into the other; and, besides, it would serve no practical end to do so, as the principle of treatment that is suited to the lower degree requires only to be extended to meet the higher. The principle would not require to be altered as if there had been a change in the nature as well as in the intensity of the disease. It is only in deciding on such a thing as the civil rights of a patient that a distinction is required to determine how far he is capable of managing his own affairs; but even here general descriptions and diagnostics will never apply, and each case must be made to rest on its individual characters.

No greater service could be done to the public than to make them so far acquainted with the constitution of their own bodies, as to show them the necessity of seek-

ing assistance in the very earliest dawn of mental disorder. But this object is in a great measure defeated by the broad though arbitrary line of distinction frequently drawn between distinct madness and the less serious and more temporary disorders of the mind. This usage prevents us from according either sympathy or assistance to what are often in reality only varying degrees of the same malady, till either from neglect or maltreatment the patient is placed beyond the reach of remedial measures. Nothing is more common in society, or at least in the intercourse of private friendship, than to hear complaints of the severe mental suffering arising from morbid alterations of feeling in every respect analogous to those which occur in insanity—acknowledging the same causes, accompanied by the same symptoms, and requiring the same methods of cure. Yet few pay any further regard to them than perhaps to smile at the sufferer, or assure him that he is perfectly well and has no reason whatever to be unhappy. And it is only when, by the extension of the disease to a larger portion of the brain, or by an increase of its intensity, reason becomes so deeply unsound as considerably to affect conduct, that the friends take alarm and regret their former apathy and inactivity. A large proportion of the cases of suicide with which the columns of the newspapers are constantly filled, occur in persons suffering from that class of mental affections which are habitually treated in society as imaginary, but which differ almost in nothing, except in the severity and the number of the symptoms, from downright insanity. In consequence of the false light in which such symptoms are viewed, events of this kind often come upon families with the unexpected suddenness of an electric shock, when, if they had been better informed, the slightest reflection would have shown them many previous indica-

tions soliciting the exertion of watchfulness and active medical treatment.

Facts like these, considered with the eye of reason, always bring us back to the evils arising from erecting a particular mental state into a disease, and regarding every lesser degree and every other modification of mental symptoms, either as sanity or as an affection distinct from insanity, when due inquiry into the bodily cause would have satisfied us that the difference was in some instances one of degree only and not of kind, and that in others, considered by us as dissimilar, the morbid action was in fact identical.

## CHAPTER. VI.

### PREVENTION AND TREATMENT OF MENTAL DERANGEMENT.

Insanity, being a consequence of cerebral disease, is to be warded off by carefully fulfilling the conditions most conducive to the regular development and healthy action of the brain; and it is here that the physiological principles evolved when treating of its causes show their importance; for if we either neglect or remain unacquainted with the laws which regulate the healthy exercise of the cerebral functions, we may allow causes of mischief to operate before our eyes, without thinking of the inevitable result.

The first condition of mental health, as formerly remarked, is a sound original constitution of brain, free from any hereditary predisposition to derangement. To prevent the future development of insanity from this cause, alliance by marriage between the members of predisposed families ought to be avoided; and their offspring, where an alliance has already been formed, ought to be educated with express relation to their special infirmity, and every precaution adopted to secure to them immunity from its development. Children so circumstanced are frequently of an active and irritable disposition; they learn easily, are extremely sensitive in their feelings and passions, and prone to nervous affections. The nervous system is prematurely developed; and, instead of being endowed with regular healthy activity, its general tone borders closely on the irritability of disease. To

prevent this passing into disease, we ought carefully to regulate and limit the amount of mental occupation; we ought never to continue it long without intervals of relaxation and exercise, and never to permit severe study or great excitement, either late in the evening, when the brain, instead of being stimulated, should be prepared for repose, or immediately after meals, when the nervous energy is absorbed in digestion and the brain cannot work or the mind exert itself with impunity. By thus avoiding stimuli, and diminishing sensibility, and by increasing the vigour and development of the muscular and vascular systems by bodily exertion in the open air, bathing, plain mild food, and such other means as we have in our power, we shall often be able to counteract the constitutional predisposition. As the future disease generally begins by disordering the action of predominating organs, our next object ought to be to select a profession, mode of life, and moral treatment, which shall call the weaker faculties into operation, so as to strengthen their organs and give them some power as checks over those which are in excess. Parents, however, elated by the quickness and cleverness of the child, often run into the opposite course, and by injudicious praise and other powerful motives, excite it to constant exertion in the very direction in which it requires to be moderated, and by so doing pave the way for its future misery. A delicate and volatile child of a highly nervous temperament will thus be shut up in school, deprived of relaxation, pure air, and bodily exercise for many successive hours, its intellect strained, its feelings roused by rivalry, emulation, pride, or even by less worthy emotions, and will then be dismissed and sent home to a load of lessons which shall confine it for the rest of the day and draw tears of weariness from its eyes.

The influence which the state of the mother during

gestation exerts on the liability of the progeny to disease is both extensive and undeniable, and it therefore becomes the duty of the practitioner to protect her as far as possible from every cause of annoyance or distress during gestation. Much irrationality—from ignorance chiefly, though partly from the perversities of fashion and caprice—is to be met with in this respect, and ought sedulously to be counteracted by the better education of the young and by the friendly and well-timed admonitions of the physician.

The close confinement and sedentary occupations of the young in general, the neglect of sufficient exercise in the open air and of active inspiriting games, taken along with over-feeding and the heat of warm ill-ventilated rooms, particularly during winter, have great effect in inducing that delicacy and irritability of constitution so common and so favourable to the excitement of nervous disease and insanity. These things ought therefore to be scrupulously attended to in attempting to avert the approach of insanity in those predisposed to it.

A very important requisite in preventing cerebral and mental disorders is to regulate the exercise of the different powers of the mind, so as not to leave those which are naturally in excess in undisturbed sway over the rest, but to strengthen the weaker faculties by well-directed employment. To save repetition, I refer the reader to the chapter on the predisposing causes, where this subject is more fully noticed than can be done here. I also refer him to the same place for a full exposition of the physiological laws of exercise, from which he will see how essential to the health of the brain well regulated activity of all the faculties of the mind is, and how very influential neglect of this law—either in the way of excess or of deficiency—is in leading to mental and cerebral disease. The means of prevention therewith

connected will not fail to suggest themselves to an attentive reader; and I shall therefore add only one remark, which is, that if those who are exposed to any of the exciting causes of cerebral disease or of insanity, put themselves on their guard to secure regular sound sleep, they will do much to ward off an attack. The moment the cause begins to excite sleeplessness by night and restlessness by day, with an involuntary inclination of the mind in one direction, at first perceptible perhaps only to the patient himself, it is time to take alarm, and if possible remove or counteract its agency. If it is excessive application to business, continued anxiety of mind, or excess of study that is keeping up the activity of the brain and placing it on the verge of disease, evil may often be prevented by timely relaxation or removal from the scene of anxiety, and particularly by carrying off much of the nervous energy in abundant muscular exercise often repeated, and by rigidly abstaining from mental exertion at night, thereby allowing the brain to fall into that state of quiescence most favourable for repose. I have seen some striking instances of the efficacy of this plan in restoring tranquillity and health to the mind when it was on the verge of derangement. The excitement of company—sometimes resorted to in such circumstances—if carried to any length, may only add fresh fuel to the flame, and stimulate the brain beyond recovery; but the society of persons whose feelings are calculated to soothe those feelings most excited in the patient, and to call others into action, is very beneficial. If an acquaintance with the philosophy of mind were common among educated persons, and the patient had confidence enough in the knowledge and discretion of his friends to reveal to them the first approach he felt to losing command of his own faculties, the development of the disease might often be prevented. In fact, its

attacks are in many instances just so many punishments of ignorance and neglect, and the most effectual remedy would be the introduction of a better system of education among the community at large.

As to the means of preventing the development of insanity from the action of the direct or functional causes, I can do little more than say that all of them ought to be carefully avoided by him who wishes to escape the disease.

Having seen how various are the morbid conditions from which the different kinds of mental derangement originate, we can readily appreciate the absurdity implied in proposing a specific and invariable method of cure, as if the proximate cause or disease were always identical in its nature.

There can be little doubt, from the numerous testimonies of experience, that if the different cerebral affections which derange the mental manifestations were better known, and if the physician were called in at their commencement when a change of temper and habits rather than decided alienation had taken place, many permanent cures would be effected, where by delay and ignorance medical aid is rendered of little avail.

In the administration of active medical aid, our first object must be to determine the nature of the individual case and to adapt our means accordingly.

If the mental manifestations are imperfect—from largely defective development of the brain or organ of mind—medical aid is powerless, and little remains to be done except to attend to the animal functions and promote the bodily comfort of the patient. But if imbecility or dementia occurs as a symptom of a weakened condition of the brain—consequent, for instance, on fever, loss of blood, starvation, or any other debilitating cause—then a

tonic treatment and a well regulated application of stimuli are required, and may be successful even after a long period of marked fatuity. But if the same mental condition supervenes on mania, as a natural termination in disorganisation of the brain, cure by any means is hopeless. Correctly speaking, however, these various causes of dementia constitute distinct diseases, having dementia for a symptom, and on this account alone require appropriate means of treatment.

Having ascertained the existence of insanity, the first question comes to be, What is to be done with the patient? Is he to be treated at home, or is he to be forthwith sent to an asylum? We all know that, in such circumstances, the common practice is to shut him up; but, before assenting to this very decided step, let us carefully inquire what grounds are sufficient to warrant the seclusion and confinement of a lunatic.

There are only two reasons which can justify our depriving any insane person of his liberty and civil rights. The first is, advantage to himself; and the second, protection to others from the injuries he might, if at liberty, inflict upon them. If the subject be a maniac who, in his paroxysms of rage, is so strongly impelled by morbid passion as to be reckless regarding the effect of his actions, and to expend his fury upon his dearest friend or upon himself as unhesitatingly as he would upon the lowest of the brute creation, there cannot be two opinions as to the necessity of secluding him from society, and taking means to render his violence innocuous. Or if he be an individual in whom, without any external impetuosity of manner or apparent wildness of expression or of action, reason is so entirely upset as to disturb the perception of his relations to others and to the external world, and consequently to risk his acting under erroneous

impressions to the manifest danger and insecurity both of himself and those about him; or if he be one in whom, without betraying itself by any outward sign except perhaps depression and love of solitude, weariness of life exists to such a degree as to lead to constant meditation on the means of self-destruction, and to its actual accomplishment when to an unobservant eye he may seem most calm and careless, every one will agree that kindness to the patient demands that he should be placed under due restraint till the return of sounder reason.

But the indications are very far from being always so decided as in these suppositions. We may be very certain that insanity exists, and yet have great difficulty in determining whether the patient should be removed from home and placed in an asylum. It is one thing to determine that a man's mind is in a state of disease, but it is another and very different thing to determine to what extent the affection has extended; whether it involves only a few or the whole of the mental powers; and how far it affects his capacity of proper self-direction in his intercourse with society. For insanity is not a specific state always marked out by well-defined lines, which, when it occurs, necessarily unfits a person for mingling in society and in business with his fellow-men. Like affections of other organs, it is a morbid state which may manifest itself in every possible degree, from the most obscure to the most striking departure from mental health. Everybody knows, for instance, that an individual may be incurably insane on subjects hinging upon one or two faculties of the mind, and yet be rational and sound on others; and that in matters of thought or of business, which do not touch upon that point, he may continue for years, and even for the remainder of a long life, to display as much shrewdness, prudence, and good sense as nine out of ten of those who never had the fear

of a straight waistcoat before their eyes. Every one conversant with the insane is aware, that in practice every possible gradation is to be met with, from an isolated affection like the above to one involving all the faculties of the mind. And, consequently, the true problem to be resolved, where the rights of liberty and of property are concerned, is not so much whether mental derangement exists, as whether it has extended so far as to deprive the individual of the power of sound judgment in his own affairs, or of regulating his own moral conduct so that he shall not endanger the welfare either of others or of himself. Numerous cases, indeed, exist around us of partial affections of the mind, which do not interfere in any marked degree with the business habits of the patient, and in which, therefore, it would be the height of cruelty and injustice to deprive him of civil or moral liberty, but in which, at the same time, every conscientious physician, if judicially examined on the abstract question of the existence or non-existence of insanity, would be obliged to answer in the affirmative. And, on the other hand, there are numerous cases which do interfere with the business habits and thinking powers of the patient, and in which removal to an asylum would nevertheless only serve to aggravate the force and to diminish the curability of the disease; while with early and judicious management at home the recovery might take place so speedily as to prevent any suspicion getting abroad as to the real nature of the illness. The question, therefore, is not devoid of difficulty; and the grand objects to be kept in view in attempting its solution are to get rid of the hitherto almost inseparable association between insanity and a madhouse, and to judge of what is required from a careful consideration of the individual case.

There is a condition of mind, apparently involving all

the faculties, which may give rise to conscientious difference of opinion, and in which it becomes doubly necessary to distinguish between disordered mind and incompetence for business—a distinction too often lost sight of in our discussions. This condition occurs chiefly in persons of a highly excitable and irritable temperament, who from trifling causes are carried away by trains of thinking or idiosyncrasies of feeling which less susceptible persons experience only after a succession of powerful impressions. Persons so constituted may pass many years of their lives apparently on the verge of insanity, without its ever becoming decided, unless an hereditary predisposition exist, in which case they generally sooner or later lapse into lunacy. In the meantime, however, they are remarkable for unequal spirits, for doing odd things and manifesting strange feelings; but, upon the whole, they conduct themselves so much like other people, that although every one remarks that they have their peculiarities, few will venture to pronounce them insane. In such cases when the transition to insanity does occur, it is so gradual that the most experienced physician, even after mature examination, is often left in doubt as to the extent to which the disease has proceeded; and while feeling that the individual is not in a condition to be left entirely to his own guidance, he is at the same time conscious that he retains too much soundness of mind not to be injured by the premature interference either of friends, of doctors, or of lawyers.

The point of difficulty for the physician, therefore, and that for the solution of which we would, in many instances, ardently long for the assistance of an intelligent jury, is to determine, not the mere existence of a mental affection, but the limit at which that affection begins to deprive the individual of the power of proper self-direction, and at which, therefore, it becomes the duty

of the law and of the friends to step in for his protection. The right solution of this problem is no easy task, for it requires in the jurors not only clearness of perception and soundness of judgment, but a knowledge of human nature, and an acquaintance with the general functions of the body and with the previous habits and constitution of the suspected lunatic, which unhappily, under our imperfect systems of general education, very few persons are found to possess. And it is in vain to seek for any general rule to help us out of the difficulty; for every human being presents so many points of difference in mind and in body and in the external circumstances modifying both, that every new case requires the same impartial examination, the same careful analysis, and the same accurate consideration of all the attendant phenomena as the first that ever occurred to us; and he who, disregarding all these conditions, hastens to form his opinion from the application of general rules, will inevitably fall into error, and cause much misery to those who confide in him.

Even after having determined that the individual is insane, and incompetent to manage his own affairs, it by no means necessarily follows that confinement will promote his recovery; and this distinction ought never for a moment to be forgotten. Having disposed of the civil question, and provided for the safety of the patient and for the preservation of his property, the inquiry, whether his restoration to reason and sound mind will be best promoted by treating him at home, or in a private house, or by sending him to an establishment for the express reception of lunatics, next presents itself to the physician, and must be resolved on special grounds. And here, again, the evils of applying general rules to all cases indiscriminately become apparent. Because confine-

ment is beneficial to the recovery of one class of patients, it has been supposed that it must be equally advantageous for the recovery of all; and to pronounce a person insane, and to send him to an asylum, have thus come to be considered as almost the same thing; when, in reality, the difference of the disease, and the constant variety of features which it exhibits, render sameness of treatment an utter and injurious absurdity.

Every case ought to be considered in itself, and a treatment in harmony with its own indications resorted to. The patient, for instance, ought never to be sent to an asylum when the means of treatment are equally accessible, and the probabilities of his restoration equally great at home. But if the nature of the derangement be such as to require that constant watchfulness and decided control which can only be obtained in an establishment devoted to this purpose, there can be no hesitation in deciding upon removal. In such circumstances, the comfort as well as the safety of the lunatic demand seclusion; and his feelings are less outraged at restraints put upon him by strangers, over whom he never exercised any authority either of affection or of duty, than by his own family and friends, on whose consideration he is conscious of possessing stronger claims, or whose sympathies he may hope to rouse by the continued and persevering appeals to their kindness and to former friendship. It is on this account that it is common to see lunatics who in the bosom of their own families were all turbulence and outrage, become at once peaceable and submissive when taken charge of by strangers. And whether we look to the ultimate cure or temporary comfort of the patient, it is assuredly an act of direct kindness towards him to withdraw him from the influence of incessant irritation and place him where the temptation to excitement is diminished.

Where the causes productive of the disease have been in long-continued operation within the sphere of the domestic circle, and the morbid associations have, as often happens, connected themselves inseparably with his own family or friends, the recovery of the lunatic will be greatly promoted by removal from home. In many instances, those formerly most loved become the objects of hatred and suspicion, and their presence tends only to provoke and increase the activity of the disorder. The very walls of the house, the scenery amidst which it is situated, and, in short, everything capable, from its connexion with the past, of exciting an interest in the patient's mind, give new vigour to his morbid associations, and retard the return of health and reason; while a change of scene and of society and the well-directed kindness and care of strangers, by giving a new direction to feeling and a new impetus to thought, are often attended with the most beneficial effects upon his general state, and prepare him for the ameliorating operation of both medical and moral treatment.

If, however, the mental disturbance be of very recent origin, or the speedy result of powerful causes either operating beyond the sphere of his own circle or of a nature not involving the true relations subsisting between the lunatic and his friends, or if it be obviously dependent on bodily disorder of a temporary and curable kind, the patient ought on no account—short of absolute necessity—to be removed from home till a fair and systematic trial has been made of the proper means of cure, and the case from their failure has fallen within the provisions already alluded to. To act otherwise would be to risk the conversion of a temporary or curable fit into a permanent and intractable disease; for no situation can be conceived more distressing to the feelings or hurtful to the reason of a person so situated, than on the dawning

of reason to find himself classed with the insane and subjected to all the restraints of an asylum. Many who have been hurried into premature confinement have, by the very act, been fitted for remaining tenants for life of the asylum to which heedless rashness had at first consigned them.

Even where the aberration has taken gradual root amid the associations of home, and where the violence of the symptoms seems to require restraint and watchfulness, a great deal more may frequently be effected by placing the patient under the direction of a physician and the superintendence of strangers, either in his own house or in one hired for the purpose, than by confinement in an asylum—especially when there is no strong hereditary taint and the cause has been purely external, and when assistance has been called in at the commencement of the disease. By proper management and consistent treatment, the patient may in many instances be restored to health and to society in a few months, with much greater security for the future than if oppressed with the recollections of confinement. But if the disease has been of long standing and has arisen chiefly from the mental tendencies and constitution of the patient, little advantage is likely to accrue from this plan, and the preference ought to be given to a well-regulated asylum, on account of the superior means which such an institution affords for enforcing regularity and order, and for providing the various other measures conducive to the safety, comfort, and recovery of the patient.

When, as too generally happens, the period for active measures is gone by before medical advice is called in, almost everything must then depend on the proper regulation of the moral treatment, which embraces in its sphere everything which acts directly upon the mind and its various faculties of sentiment, propensity, and

thought. And here it is impossible not to lament the prevailing ignorance of human nature which we meet with in every quarter when we attempt to secure the co-operation of others in subjecting the patient to a proper moral regimen. For want of a philosophy of mind based upon observation and applicable to the affairs of life, in those to whose care the patient is entrusted; from the consequent want of acquaintance with the springs which rouse any given faculty of the mind into action; from want of tact in touching these springs, and from the jarring and discord arising from accidentally grating upon those chords which ought to have been left untouched—the best concerted and most promising schemes of the practitioner are often defeated, and irreparable mischief done where every anxiety was felt and every effort made to promote his cure.

A hurtful error is the supposition that all lunatics are inaccessible to reason and insensible to the ordinary feelings of humanity, and that, therefore, it is lost time to attempt to influence them by rational and consistent kindness and friendly intercourse, and quite unnecessary to be scrupulous or otherwise considerate in what we say to them, as they can neither remember nor judge with accuracy. This, however, is a most pernicious error, and it fosters unworthy deceit, ignorance, and indolence. In the majority of cases, some, however few, of the faculties remain but little altered, and even in those cases which apparently involve every feeling and faculty, there are glimpses of reason and tendencies to right and sound action, which as in all other diseases ought to be fostered and strengthened into vigour. It is for this reason that it is injurious to recovery to limit the intercourse of the insane to those who are themselves insane, as is done in asylums, where the only rational persons with whom the

patient truly associates are his attendants, many of whom though kind and trustworthy, are of little intellectual superiority, knowledge, or learning, and of little refinement of manner or feeling. Not only is the intellect thus deprived of the ameliorating influence of the exercise of cultured intellect in others, but the feelings, already separated from every object to which value was formerly attached, are left ungratified, and delicacy hurt by the scenes to which they are inevitably exposed. In proportion as reason and health return, the evil becomes more afflicting and its effects more injurious in retarding complete restoration.

The more nearly we can approximate our treatment of the insane to that of reasonable beings, the greater will be our success. We ought never to deceive them, or do a single act or utter a single expression to them, which we would not do supposing them to be perfectly sane and able to judge of their own state and of the propriety of our conduct towards them in the circumstances. One piece of deceit, however harmless, will forfeit confidence as soon as it is detected; and many of the insane are most acute in its detection. Deceit is, besides, not only bad in itself but hostile to moral discipline, as it authorises deceit in others. Consistency and integrity may fail for the moment to soothe the patient, where deceit might for the moment succeed; but the purchase of present quiet on such terms is too injurious to both patient and physician to render it advisable. Those who wish to preserve and increase their influence over the lunatic will be careful never to promise what they do not intend to perform, and never to fail when once they have given their word. They will also habitually consult his feelings, and show an interest in his comfort, happiness, and recovery; while they will devote themselves to the removal of every offending

cause and to procuring every enjoyment of society, occupation, and exercise which the patient can appreciate.

Moral regimen can scarcely, indeed, be too highly estimated in the cure of insanity, and it requires only to be conducted with discrimination to render it a very effectual remedy. Unfortunately, the use of the term moral has, from its connexion with mind, withdrawn the notice of the practitioner too much from the bodily conditions under which the intellectual powers and moral feelings act, and thus deprived him of the opportunity of adapting different kinds of moral treatment to different forms of insanity. Accordingly we sometimes find all the inmates of an asylum subjected to the same discipline, and their employments and amusements regulated after one general plan. If the superintendent have a decided taste for music, we shall probably find a good deal of stress laid upon its beneficial effects, and every persuasion employed to induce the patients to engage in or listen to its performance, whether they have any ear or not, or whether the nature of the music be likely to excite or to soothe. In like manner, if the directors be men of sincere piety, and derive much happiness from devotional exercises, we shall probably find them recommending the indiscriminate attendance of all the patients on religious worship, without regard to the different effects which it is calculated to produce on different forms of insanity. But physiology shows that, as all the emotions and all the intellectual faculties are exercised through the medium of organisation, excitement of these emotions and faculties is necessarily and unavoidably accompanied with corresponding organic action, and that the latter will prove beneficial or hurtful exactly as it happens to oe adapted or not to the state of the organisation at the time; just as the admission of light is beneficial in one state of the eye but hurtful in another.

If any one is disposed to doubt the sanative power of moral regimen, let him turn to the exposition already given of the functional causes and of their mode of action on the brain, and he will not fail to perceive that if, as there shown, moral causes exert a more direct and energetic influence in deranging the health of the brain and mind than all others put together, they must be equally powerful in restoring it to a sound state when judiciously applied; for it can scarcely be doubted that an object which has power to produce disease must act too strongly on the morbid organ to leave its further influence a matter of indifference. In patients affected with the lesser degrees of mental disorder, we have daily opportunity of witnessing the good done by the cheerful conversation and encouragement of a sensible friend, who has tact enough to rouse the other faculties into activity, and to withdraw dexterously the patient's attention from dwelling on his delusion. The sound faculties are thus brought into play and strengthened, new interests are excited, and a temporary oblivion of his distresses takes place, which allows the morbid organs to rest and is thus extremely favourable to recovery. Travelling and change of scene act in the same way, and their good effects are too well known to require discussion here.

Powerful in modifying the action of the brain as moral arrangements are thus shown to be, the practice of subjecting all lunatics to the same regimen appears not less preposterous than would be that of subjecting all who are affected with stomachic disease to one sort of diet—food being pretty nearly to the stomach what mental stimulus is to the brain. In society we know how variously we must address ourselves to different individuals to produce any impression upon them; and the effect of disease disturbing the mind is not to smooth down inequalities already existing but to make natural

features stand out in stronger contrast, and therefore the necessity for discriminative occupation and appeals to sentiment becomes only the greater by the addition of disease. The neglect of this circumstance is the chief cause of the discrepant testimonies we possess as to the effects of music, of religious exercises, and of various other moral remedies, which, if they act at all, must do mischief when improperly applied, as certainly as they do good when used judiciously. And hence the unavoidable evils arising from lunatics associating with none but lunatics, or with attendants of little education or refinement. In such society there cannot be a proper regulation of moral stimuli so as to adapt them to the exigencies of the moment and of the individual case, and a powerful means of beneficial influence to the patient is thus sacrificed.

For the proper adaptation of moral regimen to the individual case, a combination of good feeling and knowledge is required which cannot be expected to exist in the ordinary attendants of an asylum; and until this part of the system is improved by the introduction of superior men and women to act as the friends and associates as well as attendants or keepers of the insane, we can form no notion how much more successful our curative measures may become.

The second great principle in conducting the moral treatment of the insane, is to give due exercise and occupation to the mental faculties and cerebral organs which are unaffected. The reader who has kept in mind the exposition of the laws of exercise given in the beginning of this work, will not fail to appreciate the importance of this principle. When we see the numerous instances of nervous disease and of insanity induced by no other cause except want of occupation in persons who

have acquired an independence and ceased to labour—in females who have never had any imperative employment—and in retired officers and other individuals of the same description—it is impossible to be blind to the fact, that confinement in an asylum without any means of mental or bodily exercise must be prejudicial to recovery. We might indeed presume as much from knowing that idleness and want of active interests positively induce the disease; but we have in addition the direct testimony of experience to prove that, in proportion as the laws of exercise are obeyed and the various faculties of the mind are presented with objects calculated to solicit their action, recovery goes on more favourably. All those who have acquired celebrity in the cure of insanity have been careful in providing for this requisite of cerebral and mental health.

It is pleasing, indeed, to see from the late annual reports of some of our public institutions how much anxiety is now shown, both by the physicians and directors, to provide the inmates with the means of bodily exercise and occupation. In several of the reports of the Dundee asylum, for example, the subject is recurred to with an earnestness betokening a deep sense of its importance, and the erection of sheds and workshops, in which the patients may exercise their trades, is strongly recommended.*

Difficulty is often found in inducing lunatics to work; and sometimes every motive fails to have any effect. Much may, however, be accomplished by good-natured perseverance, by well-timed appeals to sense and reason, and especially by the moral influence of example which

* This was written fifty-four years ago; but Dr Mackintosh, the author of the Reports referred to, is still among us, enjoying his repose after a long and distinguished career. It gives me great pleasure to have this opportunity of reviving the recollection of the good example which he set at so early a period of his life.—A. M.

goes almost as far with lunatics as with children. With this view, the social co-operation of men of sound mind, interspersed with and engaged in the same labour as the insane, is of great consequence in attaining regularity, method, and submission to discipline. The explanation of this must be obvious to every one, and the attempt ought never to be abandoned but from absolute necessity. So far as I have seen, I would say that—after vascular excitement has been subdued in the early stages of the disease, while restlessness, sleeplessness, and want of command over the feelings are still conspicuous, and an uncontrollable current of ideas and sensations continues to pass through the mind, and the functions of the nervous system are in a state of exaltation—nothing acts as a sedative so decidedly as abundant and often-repeated muscular exercise in the open air. Whether it is that the muscular exercise acts as an outlet to the superfluous nervous energy which would otherwise lead to restless excitement, or by what other principles it may be explained, I shall not venture to determine. The fact, however, is certain; and I have seen comparative composure of mind, sound sleep, and clearness of thinking, return under abundant exercise, where no other means had any effect. Nor does this seem wonderful, if we look to the relative occurrences in health. We know perfectly by experience, that nothing presents so powerful an obstacle to mental activity as bodily fatigue; and if we find the sailor boy, in his first engagement, dropping asleep from pure bodily exhaustion in the midst of the din, confusion, and danger of a battle, we may rest assured that both the sane man and the lunatic will be more disposed to slumber and repose, and less inclined to brood over their cares and distresses in continued watchfulness, when they have subjected themselves to the influence of bodily labour in the open air, than they

would have been if left in idleness to their own meditations. In accordance with this, it is notorious that those classes of the community who are incessantly employed in severe manual labour are almost incapable of sustained intellectual exertion, and generally go to sleep under the attempt; while those engaged in more sedentary employments, and who do not expend their nervous energy in severe muscular efforts, such as shoemakers, weavers, &c., are men both of keener sensations, quicker perceptions, and a more reflecting turn; and they it is, accordingly, who, among the lower classes, are the critics in all that concerns either Church or State. Therefore, in causing the lunatic to expend his nervous excitement in bodily labour, it is quite natural to expect that his feelings should become more composed, and the current of his thoughts less rapid and confused, and more under his own control. Nothing can be acting more in the spirit of true philosophy than for a man to walk off his rage—or even his grief—when he finds he cannot restrain it.

In the less severe affections of the mind, and in the earlier stages of common derangement, well regulated bodily exercise and mental discipline, when combined with proper medical treatment, will often go far without confinement to restore a healthy state of feeling and of thought. The want of perseverance is a frequent cause of failure; but when by the co-operation and cheering encouragement of the friends of the patient, the plan is carried through, it often does much good.

I have mentioned that, as a general rule, in directing the minds of the insane, we ought to allow the disordered feeling or current of thought to remain as much as possible untouched and to exercise the others. This advice rests on the same principle which dictates our prescribing repose to an injured muscle, or the exclusion

of light from an inflamed eye; as premature exercise of the function of either of these parts would only irritate and aggravate the evil. But there is a period at which repose becomes injurious, and moderate exercise of the function is demanded. The case is the same with the organs of the brain when they are diseased, and hence the mischief caused by the indiscriminate reading of devotional books in religious melancholy, and by constantly condoling with the hypochondriac on the subject of his fears. But in these cases also a period arrives at which the exercise of the disordered mental function on its appropriate objects becomes necessary for the perfect recovery of the organ, and at which, for example, participation in the devotional exercises in which others are engaged becomes advisable.

A good deal of discussion has taken place as to the propriety of lunatics being present at the regular performances of Divine worship, and receiving the benefits of religious instruction. If we consider for a moment the deep interests connected with the exercise of the religious feelings and the power which these have in influencing the mind, it will be evident that much good or much harm must result, according to the fitness or unfitness of the patient to view religious exercises in a proper light; and that, while much must depend on the judgment with which the portions of the service are selected and enforced, much must also depend on the condition of the lunatic himself. Nobody, for example, would ever think of recommending the admission to Divine worship of those whose reason is so completely unsettled or debilitated as to render them regardless of control, and totally inaccessible to sentiments befitting the sacred occasion; but, between the two extremes of violence and fatuity, there are many intermediate degrees which demand

a nice discrimination and an accurate acquaintance with the condition of the patient, to determine what should be done, and in which exercise of the religious feelings might do much good, if rightly directed. Even in what is called religious melancholy, in which false views are generally entertained and keep up the morbid state, a cheerful and judicious exposition of the love and compassion of the Divine Being for His suffering creature man —enforced as it would be by the example of its reception by the more rational of the patients—could scarcely fail to operate beneficially; whereas, were such an appeal addressed to the individual alone, the impression arising from seeing it taken home to themselves by others would be lost, and the understanding would be set at work to repel its reception or to pervert its meaning.

Although there may be in every refuge for the insane some whose mental aberrations are of such an extreme and determined character as to unfit them for deriving any benefit and comfort from the services of religion, yet this is not the case with the majority, to whom these services have been found to be particularly gratifying and soothing.

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