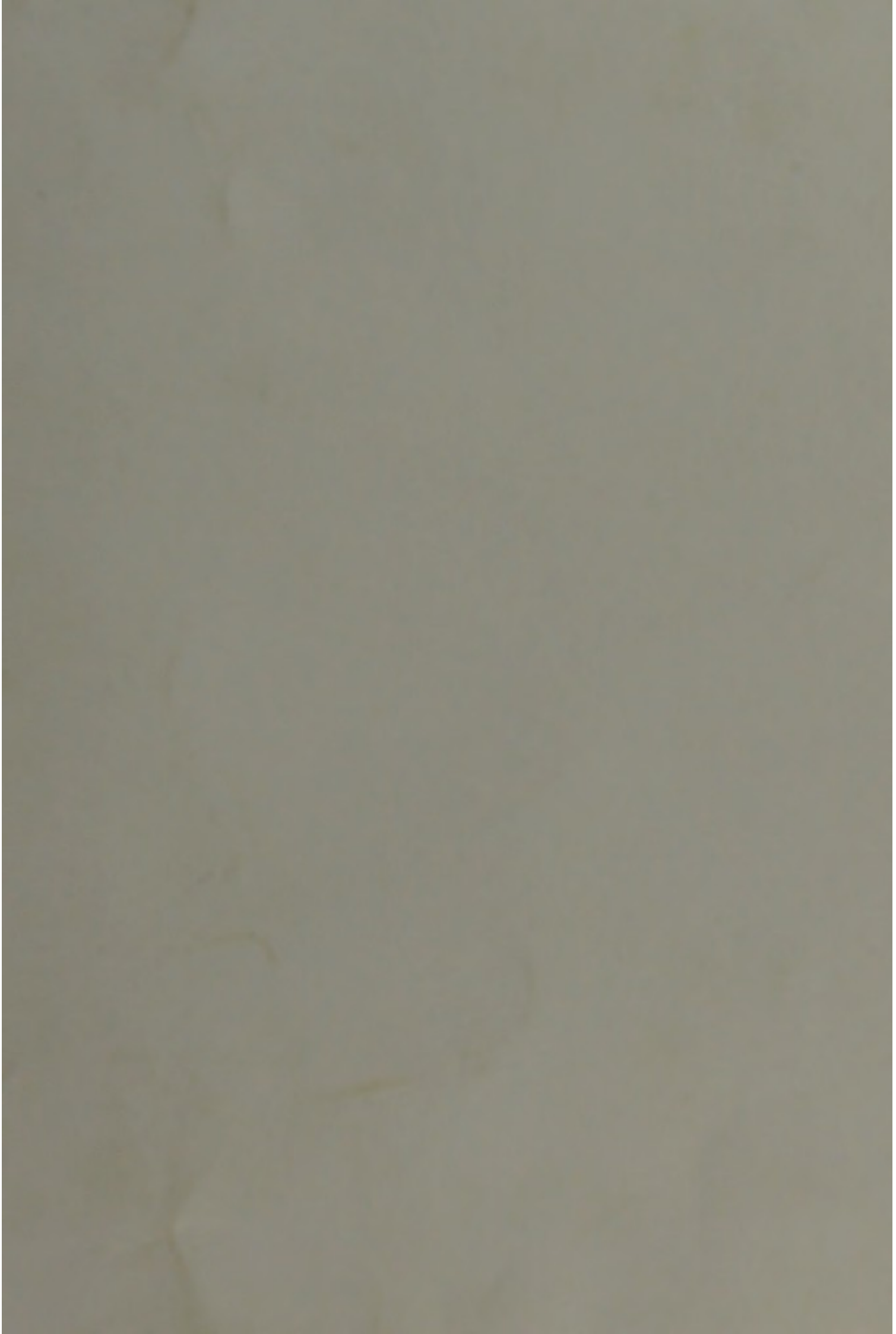
On insanity : its nature, causes, and cure / by William B. Neville.



ON INSANITY.

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ON

INSANITY;

ITS NATURE, CAUSES, AND CURE.

BY

WILLIAM B. NEVILLE, ESQ.,

OF EARL'S COURT HOUSE.

"There is every reason to believe, that the writer who should be happy enough to unfold some of its intricacies would inspire a great interest among his countrymen, and that, by a proper application of his principles, he might render them a most essential service." — BEDDOES *on Insanity*, Essay x.

LONDON:

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1836.

TO

THE GOVERNORS

OF

THE BETHLEHEM ROYAL HOSPITAL,

OF

THE HANWELL COUNTY LUNATIC ASYLUM,

AND

THE METROPOLITAN COMMISSIONERS

IN LUNACY.

My Lords and Gentlemen,

It is with sincere diffidence that, without the ceremony of a solicitation, I venture to inscribe the following pages to you. At the same time, I am encouraged to do so by the consideration that there is no body of men to whom a work of this nature may with more propriety be dedicated.

I am not influenced by any desire to associate with this treatise the factitious import-

ance derived from distinguished names, but solely by the community of interest which we feel in the subject to which it relates, and by the philanthropy and public spirit with which your operations are conducted, and which no one more fully appreciates than myself.

Should this little work meet with your approbation, that circumstance will greatly enhance the pleasure with which I have devoted my labours to the mitigation of one of the most distressing calamities to which humanity is incident.

I have the honour to be,
My Lords and Gentlemen,
With much respect,
Your very obedient,
Humble Servant,
WILLIAM B. NEVILLE.

Old Brompton, London,
Jan. 25. 1836.

PREFACE.

Of all the maladies to which the human constitution is incident, the alienation of the intellectual powers is at once the most calamitous and interesting. The possession of those powers places man in an exalted rank in the creation, and by means of them he is enabled to bring under his cognizance, and to subject to his control, the whole extent of animate and inanimate nature: deprived of them, he resembles only the ruins of a splendid edifice, or the disorganised fragments of a delicate and complicated machine.

In contemplating man as endowed with the faculty of reasoning, we can neither assign nor imagine a limit to his intellectual progress. In cooperation with the power of association and memory, it constitutes an instrument of unlimited force, and capable of abstracting knowledge from every object within its reach, and of applying that

knowledge to the most important practical purposes. But deprived of these powers man has lost all that elevates his nature, and retains nothing of its dignity but the human form. Nor is his happiness less seriously affected than his mental faculties. The scenes and pursuits in which he formerly took a rational delight become the object of his aversion. Friends, in whose society he at one time experienced so much pleasure, have now no charms to arouse him from indifference and apathy. He looks at every thing through a distorting medium, under the influence of which, friendship is deprived of its geniality, and religion of its consolations. The chain of association, by which his ideas were connected, becomes interrupted and broken; and new combinations of thought are formed analogous to those which confuse the visions of sleep. Thus he who was once the ornament of society becomes a stranger to its pleasures, and a disturber of its peace.

It is a fearful aggravation of this calamity, that so far from sparing minds distinguished for genius, they are frequently its first victims; so that society has been often robbed of its brightest ornaments, even at the zenith of their greatness.

It is not surprising that a disease, so obscure in its causes, and so melancholy in its effects, should have absorbed the attention of some of the most eminent of pathologists and of mental philosophers. This is true of many European nations; and the writings of various continental physicians will never cease to be regarded as text-books in the study of this branch of therapeutics. It has, however, been too much the fashion to elevate them into undue superiority to English practitioners. The subject has been pursued in this country with persevering energy and success, and much has been done to mitigate the horrors of the disease.

The following pages may not, indeed, develope throughout totally new views respecting the nature of this afflicting malady, nor are they written with the primary intention of superseding the established treatment for it; but, as an offering, the result of candid investigation and of successful experience, the Author ventures to hope they will not prove unacceptable to the Public.

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CHAPTER I.

INTRODUCTORY REMARKS.

It need excite but little surprise in the minds of those who are acquainted with the writings of antiquity, that in the earlier ages of philosophy some of the most erroneous opinions have been entertained respecting the nature, causes, and treatment of insanity. That such errors were prevalently entertained will be obvious to the most cursory inquiry; they were widely spread, and almost infinitely diversified, and only agreed in connecting all the forms of the disease with supernatural causes. Nor has this singular fallacy even yet entirely vanished. To this day, in Turkey and among other superstitious nations, the disease is attributed to the direct and special agency of Divine Providence.

In reviewing the various notions previously entertained upon this point, we will first instance

the Jewish people, at so remote a period of their history as the days of their regal government. At that time, the inspired prophets were generally regarded as insane. Of this fact the sacred annals furnish ample evidence: in the second book of Kings, for example *, we find Jehu, after having been anointed by the prophet as king, addressed, "Wherefore came this mad fellow to thee?"

In Greece, also, the priestesses at Delphos, and at all the temples where oracular responses were given, were considered to be labouring under insanity; and the more violent the affection was, the more entirely were they thought to be possessed by the divinity of the place; and the more confident, therefore, was the applicant in the replies uttered, as dictated immediately by divine inspiration. Hence the language of Virgil, in describing the priestess of Apollo: —

"——— Immanis in antro
Bacchatur vates, magnum si pectore possit
Excussisse deum: tanto magis ille fatigat
Os rabidum, fera corda domans, fingitque premendo."

For the prevalence of these opinions, of which instances might, if necessary, be indefinitely multiplied, it is by no means difficult to account. A profound mystery has ever rested, and probably will ever rest, upon the essential nature of the mind, upon its modes of existence and developement,

* Chap. ix. ver. 12.

upon the nature of its connection with physical organisation, and upon the *rationale* of the influences which they reciprocally exert upon each other. These will always remain among the deepest secrets of human nature. They are the least obvious to philosophical inquiry, and consequently are the last to which attention is usually directed. Moreover, the vast diversity of aspects which the mind assumes, even in health, as its phenomena are modified by physical temperament, age, sex, climate, and a variety of other circumstances, tends to perplex inquiry and to increase the probabilities of error. Hence we need not wonder at that admixture of superstition which, on all subjects of great moment, is the necessary companion of ignorance and fear.

Nor do we find these superstitious feelings confined to this affection. All diseases were regarded in the primitive ages as more or less the results of supernatural causes, and as such, subject to the influence of charms, incantations, &c. Among the Jews, and particularly subsequent to their return from the Babylonish captivity, all affections analogous to mental aberration were attributed to the malign influence of demons; and the ancients in general were influenced by these sentiments in their conceptions of all maladies which they were unable to trace to any proximate and definite cause. Hence we are told that they applied the term εμβροντητοι to apoplectics, a phrase indicating a vindictive and superna-

tural agency. It will be found, on examination, that the opinions of the ancients, physical as well as metaphysical, on this subject, had a correspondence to the prevailing doctrines, prejudices, and fashions of their respective times. It is quite a matter of uncertainty whether Hippocrates, the father of physic, ever wrote specifically on insanity. No treatise on this subject by that eminent physician has ever come down to modern times. Until, however, a more illustrious era in medical history commenced with the founder of the Greek school, the ideas promulgated on all medical subjects were singularly wild and ridiculous. The mighty mind of Hippocrates first destroyed the unnatural union which had existed previous to his time between empiricism and science, and between the dogmas of mythology and metaphysics and the legitimate inductions of experimental observation. We have a work on the subject of epilepsy from the pen of Hippocrates, in which, though he gives us no definition of insanity, yet he expresses the very novel opinion, that the disease arises through the blood being carried to the brain mixed with bile.* On this principle, he attempts to account for the varieties of the disease. He observes, that black bile

* This hypothesis, for it is evidently no better, being constructed on the *à priori* principles of philosophising which prevailed until a much later period, has still the merit of preserving some semblance of analogy between cause and effect, and of thus commencing the rescue of a noble science from the hands of jugglers.

gave rise to dark passions, such as suspicion, jealousy, hatred, and revenge; while yellow bile produced high spirits, great irritability, and extravagance. He supposed also that pituita operated as a sedative principle, to retard the operation of the mind, and produce great depression of spirits, fear, anxiety, and despair. With that boldness, masculine genius, and luminous reasoning which so much distinguished him, Hippocrates combated the idea that epilepsy was in any degree connected with inspiration, and exposed with extraordinary power the credulity of vulgar minds, the deceptive arts of empiricism, and the binding influence of superstition. From Hippocrates we turn to the writings of the most ancient Greek author extant who has written on this subject — Aretæus, the Cappadocian: in his work *De Melancholia* we find a brief and elegant history of that disorder. This physician followed closely in the footsteps of his great predecessor, and adopted, with but little modification, the physiological opinions of Hippocrates. His ideas are, however, mixed up with the metaphysical and theological notions of his time. His treatise *De Melancholia* has come down to us sadly mutilated; while his work on *mania*, though well deserving perusal for the simple and unexaggerated facts which it exhibits, contains no allusion to the moral treatment of insanity.*

* This writer had decidedly clearer notions than any of the ancients beside respecting the physical causes of the disease;

Celsus, a Roman physician, has written a valuable treatise on this disease: his remarks are simply practical, unalloyed by theoretical disquisition: he has spoken at length on the moral management of the insane. Ælius Aurelianus and Alexander Trallianus have also written on similar forms of disease; but we find nothing valuable in their writings. It appears that most of the physicians believed that mania and melancholia were but different degrees of the same affection. Hellebore was their favourite remedial agent; though Alexander Trallianus expresses himself as opposed to the use of this drug, and recommends the substitution of other evacuants.

The Arabian physicians have left us no original treatises: all their writings are but miserable compilations from the works of the ancients, deformed by their own absurd physiological speculations.

I have now given my readers a concise account of the opinions of the ancient physicians on the subject of derangement of the mind. It was to be expected that, on a subject like this, all their notions must of necessity have conformed to their ideas of the human mind, and accorded with the prevailing doctrines of philosophy: moreover, on a subject that called into exercise the powers of the imagination, it was natural to anticipate that their

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yet his writings are encumbered with the doctrines of the humoral pathology. Thus we hear from him of the "inflammatory bile" exciting to mania, and the pituita by its sedative qualities depressing to melancholic affections.

views would be in some degree fanciful. Notwithstanding, however, their writings are well deserving consideration, particularly those of Celsus, who was the first physician that called attention to the *moral* treatment of diseases of the mind.

I shall now touch briefly upon some modern opinions of more practical importance.

Medical men have been subject to much ridicule in our courts of law for the great variety, and sometimes total dissimilarity, of opinions entertained by them with reference to a correct definition of insanity. The great fault consists in attempting to define with precision what does not admit of being so defined. The medical profession have, indeed, been very unjustly blamed on this point; for, when we bear in mind that we have so few fixed data upon which to reason with regard to aberration of mind, it will not appear surprising that a great difference of opinion should exist on this subject. As derangement of mind, when proved to exist, has the effect of depriving the individual so affected of his rights as a citizen, and removing from his control the management of his property, it has always been considered a matter of the highest importance for the interests both of the art of medicine and of general jurisprudence, that some definition should be established and acknowledged. It has been laid down as an axiom by a great authority in surgery*, that when

* Mr. Lawrence.

we see many modes of explaining a particular phenomenon, we may be satisfied that very little is really known on the subject.

"The difficulty of proposing," says Dr. Haslam, "a satisfactory theory of the human mind, must have been felt by every person who has touched this delicate string, since the days of Aristotle; it is, therefore, not surprising that the knowledge of mental derangement is so little understood."

In order to give a definition or test of insanity, every writer on this disease (with very few exceptions) has laid down certain rules; and so widely are they at variance with each other, that "some," as Dr. Good observes, "are so narrow as to set at liberty half the patients at Bethlehem or the Bicêtre, and others so loose and capacious as to give a strait-waistcoat to half the world." Some authorities state the imagination to be the seat of the disease. "Exalted imagination is insanity," says Dr. Reid. No doubt this physician alludes to the close approximation of the divine frenzy of the poet to insanity, of which Ovid makes mention: —

"Est deus in nobis agitante calescimus illo."

Other authorities, on the contrary, overlooking the imagination, have laid violent hands on the judgment, and pronounced this faculty to be at fault in mental derangement. The great author of the "Essay on the Human Understanding" entertains

this opinion; and our celebrated Dr. Cullen trod closely in his footsteps. Locke observes, "In fine, the defects in naturals (idiots) seem to proceed from want of quickness, activity, and motion in the intellectual faculties, whereby they are deprived of reason. Madmen, on the other hand, seem to suffer by the other extreme; for they do not appear to have lost the faculty of reasoning, but, joining together incongruous ideas, they mistake them for truths, and err as men do that argue right from wrong principles: the violence of their imaginations taking their fancies for realities, they make just deductions. Thus we find a distracted man fancying himself a king, with correct inference as to the requisites, — suitable attendance, respect, and obedience. Others, who have thought themselves made of glass, have exercised the caution necessary to preserve such brittle bodies. Hence it comes to pass that a man who is very sober, and of a right understanding in all other things, may, in one particular, be as frantic as any in bedlam, if, by any sudden or very strong impression, or long fixing the fancy on one particular subject, incoherent ideas have been cemented together so powerfully as to remain united. But there are degrees of madness, as of folly: the disorderly jumbling of ideas together is in some more, in some less. In short, herein seem to be the difference between idiots and madmen, — that madmen string wrong ideas together, and deduce imperfect propositions,

but argue and reason right from them; but idiots make few or no propositions, and reason scarcely at all." Dr. Abercrombie has ably exposed the erroneousness of this view of the subject; and, in illustration of his argument, he gives us some interesting cases.* According to Locke, very few men are blessed with sanity, if the reverse consists in drawing sound conclusions from erroneous premises. Half the works issued to the world consist of specimens of correct inferences from wrong data. As all our ideas of external objects are derived through the medium of our senses, it has been maintained by some recent writers that as soundness of mind depends upon the correctness of these senses, insanity is to be referred to a diseased condition of one or more of them. M. Dufour, a physician of great learning and experience, has endeavoured with much ingenuity to establish this point. Dr. Battie defines madness to consist in false perceptions: consequently, as Dr. Good observes, every man must be, under such a definition, pronounced insane, "who, at a distance, mistakes a square for a round tower; the bending azure sky, that terminates an extensive landscape, for the sea," &c. Dr. Arnold divides this disease into two grand species, one of which he calls notional, and the other ideal, insanity. This hypothesis is altogether founded on a purely gratuitous distinction between

* Inquiry concerning the Intellectual Powers.

ideas and notions, and in the apparent variety, rather than on the more immediate nature, of the diseases themselves: this division is not founded in nature. Dr. Crichton has entered points at what he considers the inaccuracies of Dr. A.'s doctrine, to which the reader can refer.

Crichton's definition differs but little from Dr. Battie's. The disease in question, according to this authority, consists in "general derangement of the mental faculties, in which deceived perceptions are mistaken for realities; with incoherent language, and unruly conduct." Dr. Conolly considers mental derangement to consist in the impairment of any one or more faculties of the mind, accompanied with, or inducing, a defect in the comparing faculties.* It is somewhat difficult to draw a distinct line relative to the judgment; for, although the judgment is frequently affected in derangement of mind, yet there are species of this disease in which the judgment appears sound, and where the feelings are alone morbidly influenced. I recollect the case of a man who was seized with a periodical propensity to kill either his wife or one of his children. This individual was not deficient in strength of mind; on the contrary, he was a man as much distinguished for his literary attainments as for his kindness and benevolence of heart. During the intervals of his paroxysms, he deeply lamented that he should be at times so much under the influence of

* Indications of Insanity, p. 300.

the evil one (as he expressed himself); he attributed this propensity to an inordinate determination of blood to the brain, and was most probably correct in his pathology. Previous to the attack, to use his own language, he felt a rush towards the brain, and a dimness of sight; and, subsequently, a feeling came over him to take away the life of his wife or child, though conscious he was wishing to do what was wrong; but the devil, as he said, urged him to commit crime contrary to the dictate of his own judgment and parental affection. Orfila relates a similar case of a female, who, whenever she washed the children, and saw the water trickling from them, heard a voice pronounce "laissez le couler," — let it flow; until, after a thousand struggles to banish the horrid suggestion which accompanied it, she plunged a knife into the child.

Pinel relates the case of a female who could not walk by the side of the river with her children, without feeling a desire to throw them in: whenever so placed, she used to hurry away as soon as possible, in order to remove herself from the temptation. Another case is cited of a servant maid who, whenever she washed the children of her mistress, felt a strong propensity to strangle them: so difficult was this feeling to overcome, that she went one day to her mistress and requested to be dismissed. That cases somewhat similar are of frequent and daily occurrence is not a question of doubt, though the results,

evidently for want of proper attention, are sometimes more fatal. In these cases of manifest derangement, we see the judgment and comparing faculties quite sound.

Shakspeare, who understood more of human nature than almost any other writer, and who delineated all its affections with inimitable skill, has described in several of his plays the symptoms of mental disease, and has laid down in one of them, with singular nicety, a test on insanity, on the nature of which Sir Henry Halford read a paper before the learned members of the College of Physicians. The passage to which I refer is found in Hamlet, Act iii. Scene 4., and is as follows: —

> "My pulse as yours doth temperately keep time,
> And makes as healthful music: it is not madness
> That I have uttered. Bring me to the test,
> And I the matter will reword, which madness
> Would gambol from."

But, whatever merit may here be granted to the fancy of the poet, it will be manifest to the observation of the medical practitioner that neither one nor twenty such tests of mental aberration can be held as conclusive.

In this brief preliminary view of this subject, it is not my object to give more than a superficial outline; and I shall confine myself to a similar scale in my notice of the general treatment of insanity. It should comprise both medical and moral re-

medies, — both subject to great abuses, and both beneficially applicable when directed by skill and experience. There are diversities of conflicting opinions as to the treatment of this class of disease; and perhaps it would be difficult to arrive at a just conclusion from the mass of works published, as they have been frequently written by prejudicd parties, or to subserve ulterior views.

To those acquainted with the workings of the malady and its peculiar characteristics, indeed to even a sound understanding, it will be easy to perceive the errors and partial views of such as profess to apply a medicinal agent only, as a specific, or of those who advocate a course of moral treatment only for a cure. There is no doubt that a co-operation of medical and moral means is requisite to effect a thorough cure, and these under the guidance of persons of sound professional education, and mature experience of the disease. The mixed character of the phenomena presented as the mind and body are seen reciprocally influencing each other, would seem at once to place the propriety of this order of treatment beyond a possibility of doubt.

At the same time, while this circumstance seems to dictate such a course, it also is the chief source of the multiplied difficulties which obstruct the remedy of the disease, continually concealing the primary causes of symptoms, and eluding the most

vigilant observation by an infinite variety of changes. In short, the obscurity in which the subject is involved is mainly dependent upon the ignorance which prevails respecting the mental principle itself; whose operations are in this malady presented to the view of the practitioner in such an infinite and fantastic diversity of phenomena as seem to baffle all attempts at classification. To appreciate the degree of our ignorance respecting its constitution, and its most important relations, it is only necessary to glance at that department of literature of which it forms the subject. Each succeeding age has witnessed the promulgation of some theory at variance with all which have been previously maintained; while each succeeding writer on mental philosophy has attacked and professedly confuted the views of all his predecessors in turn. Nay, the utmost ingenuity and subtlety of mind have been exerted upon what may be called the previous question; so that while one party has maintained that the belief in a mental principle is a fallacy, another has exerted the mightiest powers in demonstrating that nothing else has any real existence at all.

While these considerations afford a humiliating view of the scantiness of our knowledge, upon a subject the study of which has employed a long series of generations, and engrossed all the intellectual powers of man, they will not be without a salutary use, if they incite to more perse-

vering labours in this vast and fertile field, and inspire, in the mind of the student, that philosophical caution which discards no theories because they are novel, and adopts none because they are supported either by numbers or reputation.

CHAPTER II.

DEFINITIONS, DIVISIONS, AND SYMPTOMS OF INSANITY.

It has been invariably considered as a matter of some difficulty to give a good definition of insanity. Such as have yet been published, and somewhat generally received, either include too much, or they omit much that is important. But when we recollect the vague theories respecting the mind and the general phenomena of its activity which are so frequently mistaken for its primary powers, we cannot be surprised at the small success that has accompanied most of the attempts hitherto made to embody, within the limits of a sentence, such a definition as should be found applicable to the very diversified features presented by the disease of which we propose to treat.

A correct definition is, indeed, of extreme importance; inasmuch as it is upon the views entertained of its nature that our whole management of the disease depends.

Now, if we bestow an attentive observation on insanity, and throw aside all prejudiced notions regarding the faculties of the mind, we shall find that the difficulties complained of are not altogether insurmountable.

The connection of the faculties of the mind with the brain, or, to speak more accurately, their dependence on this organ, is a point so certainly demonstrated by the labours of modern physiologists and pathologists, that we apprehend no objection can be made to a definition of insanity couched in the following, or something like the following, terms:—*Disordered function of the brain generally, or of one, or of several of its parts, without consciousness of this derangement on the part of the individual affected, and without notable or necessary implication of the functions of any other system in the body.* *Idiotcy*, again, as intimately connected with insanity, we should define to be—*Deficiency of mental manifestation, from lesion, imperfect developement, or absence of one or more of the cerebral organs.*

We perfectly agree with a distinguished continental writer*, when he says that the disorders of the mind are only limited in number by the diversities which exist in the faculties liable to be affected. But as the mental faculties, in their state of integrity, are capable of being arranged under a few natural heads, so their disordered manifestations are also capable of being placed under titles in conformity with these. Thus the *propensities* and *sentiments* of our nature—the *moral* or *active* powers, as they are often entitled—form one grand, and, indeed, by far the most considerable, item in our

* Dr. Heinroth, quoted by Dr. Prichard.

mental constitution; the *intellectual* faculties, and, subordinate to these, the *organs of the external senses*, constitute another.

The discrimination of observers, from Pinel (the father of rationalism in the consideration of what are called diseases of the mind) downwards, has enabled them to see that the faculties in one or other of these two divisions might be affected singly, as well as conjointly and simultaneously: that insanity, for instance, might be entirely *moral*, the intellect not being affected; that it might be *intellectual*, the moral feelings suffering no deterioration in their capacities of healthy manifestation; and that it might be at once both *moral* and *intellectual*.

Divisions of insanity in accordance with these facts have been established with the happiest effects in furthering a right understanding of this interesting subject.

Those which individual observation, aided by the views of such as have preceded in the path, lead us to adopt, are the following: —

I. General affective and intellectual insanity	When accompanied with violence or exaltation, entitled *Mania* by writers generally.
II. General affective insanity	When unattended with violence, generally spoken of under the title of *Dementia*.
III. General intellectual insanity	
IV. Partial affective insanity	Generally taken in conjunction under the common name of *Monomania*.
V. Partial intellectual insanity	

We have said that insanity implied no notable

or necessary derangement in the functions of any other system save in those of the brain, or in one or more of its parts. It very rarely happens, however, that the functions of what is termed the *organic life* — namely, digestion, circulation, respiration, secretion, &c. — are unaffected. Still the degree in which the stomach and alimentary canal, the heart and the lungs, the glands and secreting surfaces generally are implicated, varies so much in each case, that the affections are clearly seen to be adventitious, and therefore by no means essential features in the more important disease. In the earlier stages of the malady, indeed, these, and especially the digestive organs, almost invariably suffer: the tongue is furred, the mouth dry, the breath unpleasant, the appetite gone, and the bowels obstinately constipated. Under these circumstances, the pulse is generally accelerated with evident febrile symptoms, such as thirst, dry skin, &c.; but none of the morbid phenomena are permanent: the digestive organs in general speedily recover their powers; the loss of relish for food disappears, and is frequently succeeded by an inordinate craving for it, with commensurate ability to digest and turn it into aliment. The tongue then becomes clean, and the bowels regular; the pulse subsides; and the affection of the brain, or of its parts, is all that remains to characterise the disease.*

* Much of the prejudice formerly entertained by the weak and ignorant against individuals labouring under mental derange-

One of the most troublesome and unfavourable accessory symptoms is sleeplessness: the patient often passes weeks, months, and, according to some, even years, without ever appearing to taste sound and uninterrupted slumber for an hour. So long as this state continues, patients seldom recover; whilst one of the most favourable indications of approaching convalescence is the return of sound and refreshing sleep.

It is among the functions of what is styled the *animal life* that the greatest disorder occurs in insanity: in fact, it is functional derangement of the whole or of a portion of the nervous system, which, as we know, is charged with manifesting the phenomena of animal life, that constitutes the disease.

The very lowest or most universally diffused of those appendages of animal existence, common sensation and voluntary motion, are very generally, and often very extensively, implicated in insanity. Patients frequently exhibit either greatly increased or much diminished sensibility of the skin: the slightest touch, or the most trifling violence done to the surface, is complained of as extremely unpleasant, or even as excessively painful. At other times, again, the skin may be pinched or pricked without any complaint being made of consequent

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ment has been removed; and it is not now considered to convey any more opprobrium to individuals so afflicted than if they suffered from gout, consumption, &c.

suffering. It happens even more frequently, that every thing touched is felt as if it were soft and yielding, or as if it were hot or cold, &c. A sense of extreme or burning heat in some region of the body, is another very usual concomitant of deranged mental manifestation.

To derangement of the functions of common sensation we must also refer the host of strange and often unaccountable notions that take such frequent possession of the minds of the insane. To the same cause must be ascribed those deplorable instances in which the insane tear themselves with their nails, and sometimes with their teeth, without betraying any symptoms of suffering.

It is unquestionably to this source also (derangement of the faculty of common sensation) that we must refer the apathy occasionally displayed by the insane to exposure to intense heat or intense cold. In this country indifference to cold, and even the power possessed of resisting its benumbing influence, have been the most frequently observed; and general inferences, extremely prejudicial in their common application, have, unfortunately, been drawn from a few of these particular instances. Because one or two were observed to be indifferent to cold, and to suffer nothing from exposure to its influence, it was concluded that all the insane were in the like predicament; and hence the neglect of all attention to atmospheric mildness, clothing, and proper facilities for introdu-

cing a suitable degree of heat. Some few individuals, indeed, whose nervous systems are deranged, do exhibit wonderful indifference to cold; but others shrink from its paralysing effects, and shiver under the slightest exposure: their nerves of sensation are not disordered; the sentinels which nature has posted round every point of the skin are not dead or asleep; and their admonitions in this disease, just as in health, are never disregarded with impunity.

It is also a mistake to suppose that the muscular system, the instrument of voluntary motion, is never affected in insanity save in one way: it is true that, in the generality of maniacs, its powers are very much increased; but, in many cases, they are as signally diminished. Whilst the whole strength of three or four strong men sometimes is hardly adequate to restrain one moderately muscular patient during a paroxysm, another is so weak as to be controlled, with little or no difficulty, by a single individual. The muscular system, therefore, suffers diminution, as well as exhibits exaltation of its powers. It very rarely happens that any thing like irregularity or imperfection of action in the muscular system is apparent during the earlier periods of the disease; but when it has continued long, paralytic, or semi-paralytic, affections frequently complicate its course. The first symptoms of this are commonly manifested in a certain hesitation in the speech of the patient, evidently result-

ing from inability to command the motions of the tongue; the same inaptitude to control the muscles of the extremities follows; and the patient sinks, at length, into a state in which motion of any kind is all but impossible; the eyelids drop; the features are discomposed: the sphincter muscles are habitually relaxed, and the limbs, if they still continue to obey the impulses of the will, do so tardily, and with extreme difficulty.

The external senses seldom escape very manifest derangement of their functions. The taste frequently becomes perverted: many patients will eat straw, filth, &c., and some complain of an abominable savour from the simplest and most agreeable food. The sense of smell, in the same way, is frequently affected; some are tormented, wherever they go, by bad smells, and may be seen compressing their nostrils, in order to escape the annoyance from which they suffer. The hearing is even as commonly disordered: they may often be observed covering their ears, to escape the noise of bells — whose incessant ringing, they declare, distracts them — or the abuse with which they are assailed at every instant, and declare it difficult to endure. Others, again, may be observed listening in an ecstasy to the songs of angels, with which they are solaced, or, on the contrary, shrinking from the howlings of the demons, by which they are tormented. The vision is commonly known to be implicated in a great number of cases of insanity: patients often complain of seeing

every object as if through a veil; or they shut their eyes to escape the flashes of light, or the crowds of insects or moving molecules with which the air seems loaded. Very frequently, too, they imagine they see spectres; or they have a constant succession of frightful objects rising before them.

In considering these affections of the senses, it is at all times interesting to inquire, whether it is the external organs, which immediately receive impressions — the tongue, the nose, the eye, the ear, &c. — or whether it is the internal faculties, which are cognizant of these impressions, that are the seat of the derangement. When patients find an escape from the noxious effluvia, unsightly objects, strange noises, &c. with which they complain of being harassed, by stopping the nose and ears, and covering their eyes, it would appear that the external instrument was the part principally in fault; and, accordingly, in some cases, we find ill-conditioned ulcers of the nostrils, a loaded state of the vessels of the eye, and defective secretion of cerumen in the outer ear, by remedying which, the illusions complained of happily cease. It is much more common, however, that the most careful examination of the external instruments of the senses enables us to discover nothing like organical lesion; in which case, the false perceptions conveyed must be regarded as generally due to some internal disorder in the nerves specially distributed to the organ of the sense affected. We say *generally* due, because

we are by no means satisfied that the olfactory nerves (to select a particular instance) are the sole seat of the derangement, when a patient gets rid of the noxious odours with which he is habitually tormented by stopping his nostrils: there is harmony between the part within, which perceives impressions, and the instrument without, which receives them: the action of the one is sometimes necessary to that of the other. But there is one class of cases in which the external organ employed in receiving impressions is altogether unimplicated, and when the seat of the false perceptions, or hallucinations, as they are then denominated by medical writers, is the part within, whose business it is to recognise them. In this instance, the patient enjoys no immunity by closing the avenues by which the painful or distressing perceptions might be presumed to gain access to his mind: the spectre that haunts him is present still, whether his eyes be shut or open; the accusations of enemies, and the promptings of wicked spirits, still disturb him whether his ears be free or closed.

It is a great mistake to treat these hallucinations as imaginary and unreal: they are as much realities to the unfortunate sufferer as the perceptions aroused in the healthy mind, under the influence of an organ of sense excited by its appropriate stimulus.

When we look inwards, and pass in review the internal senses, we find evidence of as remarkable

derangements. The feeling by which we are admonished of the necessity of taking meat and drink is very commonly either blunted, or very much exalted. Many insane persons never show the slightest signs of feeling either hunger or thirst. They voluntarily pass days without food, and would sometimes perish of inanition, were they not compelled to feed; others, on the contrary, seem insatiable in their appetites, and their whole minds are apparently concentrated on the pleasures of the table.

The feeling that associates the sexes is the subject of frequent disorder: individuals, hitherto remarkable for the modesty of their bearing and the moderation of their desires, become obscene in their language, indecent in their conduct, and are evidently under the influence of the sexual propensity in an uncontrollable state of activity. * Again, the parent, who has hitherto been devoted to his offspring, and ready at all times to sacrifice himself for their safety, often begins to look upon them as objects of aversion, and, from being their protector, sometimes resolves upon their destruction. In the same way, the feeling that links man with mankind and with his family is frequently seen to become per-

* It is a common supposition that the constitutional change which naturally ensues at the middle period of life in the female allays all the animal passion. That such is the case, generally speaking, there can be no doubt, where the system is not controlled by disease. We have observed in *maladiels* that it is most frequently quite the reverse, and this to a very considerable extent.

verted. From having been social in their tastes, and delightful members of society, many become solitary and disinclined to company: instead of attachment and confidence, they evince aversion and distrust. On the other hand, we find the feeling in question assuming such a morbid intenseness of action as is rarely evinced in the world. Pinel's remark is perfectly true in which he observes, that "nowhere save in romances met he with more tender husbands, more affectionate parents, more devoted lovers, or more disinterested patriots, than in establishments for the treatment of mental derangement."

Many insane persons are extremely irritable and quarrelsome who were previously remarkable for gentleness of disposition. The feeling which, in health, leads man to overcome obstacles, and discriminately to destroy that he may live, is frequently the subject of derangement. It is under the influence of this propensity that we see blind and ungovernable rage usurping every other power; the teeth set, the hands clenched, and all the actions indicative of violence, propelling them onward either to destroy individually or indiscriminately. Dr. Spurzheim mentions the case of a female whose malady partook of a different character; she was in the habit of carrying live charcoal in the palms of her naked hands, in order to set fire to her bed.

The propensity that originates perceptions of property among men is commonly enough met with

in a state of derangement. In some instances this feeling is so active, and so little under the control of the other faculties, that they take every opportunity of secreting and stealing whatever happens to come in their way. Sometimes they gather stones, or the most useless, and in themselves valueless, articles, and hoard them up with scrupulous jealousy. Patients so affected are often observed to exhibit consummate address in concealing their real state, as well as a mixture of deep cunning in their actions generally: insomuch that many pride themselves of their powers of deceiving. Neither is it uncommon to observe these propensities under consideration as evidently, disordered through inactivity: they then will destroy, squander, or part with every thing, give to whoever asks without consderation or regard to consequences.

When we pass in review what may be denominated the moral sentiments, we find similar indubitable evidence of disordered manifestation in regard to every one of them. Insane persons are frequently possessed with a most exalted idea of their own importance: they are fond of commanding all about them; in issuing their mandates, they fall naturally into the air of the character they wish to assume.

If we often encounter irascible and destructive patients, we also frequently observe others who are remarkably gentle and considerate, and whose benevolence is unbounded. If we meet with the

sad and desponding, we are also attracted by the gay and the happy, whose lives, amidst the utmost wretchedness, seem to flow on in one even current of present enjoyment; and whose future, if they ever look forward, is one of unclouded and happy expectancy.

The feeling which causes us to court the approbation and notice of others is, in like manner, frequently disordered. Females especially are often met with who show extreme anxiety to attract attention, who are particularly fastidious and minute as to their personal appearance, and seem to pass the whole day in decorating themselves with such finery as they can command: all the gestures of those patients whose faculty of approbation is deranged are courteous and winning. Circumspection, it must be admitted, is a powerful feeling among mankind; though, in general, its derangement is so common, and its influence so marked in numerous instances, that writers on insanity have been led to base one of their divisions (Melancholia) on its morbid activity, and evidently the very essence of melancholia is deranged manifestations of the faculty of cautiousness or circumspection. This description of unfortunates often fancy themselves objects of dislike to their fellow-creatures: they are suspicious of all around, taciturn, mournful, timid, and retiring, and often evince a strong disposition to self-destruction: they perhaps live under the weight of an undefined dread of they

know not what; and such is their state of feeling as to render it unsafe to leave them for an instant, or even allow any instruments with which they could injure themselves to be within their reach. Others again are remarkable, in the opposite extreme, for their uncomplying disposition, and the obstinacy with which they adhere to their resolutions. Now and then we observe patients tormented by foolish scruples; who imagine that they have committed some crime, or done some act against propriety, the precise nature of which they cannot always specify; who continue their lives in self-accusations, the victims of remorse; believing themselves outcasts from society here, and cut off from mercy hereafter. Others also are occasionally met with who do little else but pray, addressing their petitions with a zeal and apparent fervour truly remarkable, and which, indeed, under correct religious influences, would be extremely gratifying.*

We may class visionaries of all kinds under the general term insane. Those who are most seriously affected are impressed with suppositions of

* In Lesinkey's *Voyage round the World* there is a curious account of a religious sect in the Sandwich Islands, who arrogate to themselves the power of praying people to death; and whoever incurs their displeasure receives notice that the *litany* is about to begin. Such is the force of superstition, that the very notice is frequently sufficient with these poor people to produce the effect.

their prophetic character, or sometimes with notions of their superhuman sanctity; others are in communication with supernatural agents, whose services they command. Such as are more partially affected dwell in imaginary worlds, exhibiting the air, and even displaying much of the inspiration, of the poet; inventing romantic and pathetic tales, and even supplied with the utmost copiousness of language in which they clothe their conceptions.

Disordered manifestation of the intellectual faculties is an event of every-day occurrence. It is shown by the mind becoming unsteady, the loss of the powers of thought, and a general inability to retain ideas with sufficient precision to speak or write as formerly. The entire of the perceptive faculties are deranged; or one or two only of the number, and but partially, are affected. Incompetency to form accurate conceptions of the figure, size, weight, colour, and number of external objects, is a frequent characteristic. Strangers also are mistaken for relatives and friends, or *vice versâ;* the sight is confused; and, in reading, the lines appear contorted, or the type disarranged.

The faculty by which we estimate time is often implicated *: for instance, that by which we

* A singular instance of this was afforded by one of the most celebrated divines and orators of the past day; who, having been confined for a few weeks, in consequence of mental derangement, was impressed, even after his recovery, with the conviction that he had been laid aside for about thirty years. On being relieved from this fallacy, he with his usual sagacity developed its cause:

distinguish the intervals of musical sounds becomes either preternaturally excited, or rendered torpid in its exercise; so that individuals who had previously been remarkable for no peculiar musical talent suddenly display singular accuracy of ear and taste; or, on the contrary, those distinguished for musical talent lose the gift, and become incapable of distinguishing the comparative duration of musical sounds, deriving no pleasure from the most perfect harmony, and displaying no pain at the most discordant combinations.* The powers that constitute the mathematician are occasionally exhibited in a state

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"This," said he, "is a striking illustration of Locke's theory, that we estimate time by the number of ideas which have passed through the mind. In this interval of six weeks I have *thought through thirty years!*"

* Visiting a lady who possessed much musical talent, and performed well both on the harp and piano, I took the opportunity of hinting to her that her instrument was much out of tune, saying, "Madam, do allow me to have it tuned for you — it sounds so harsh and grating." — "Sir, I thank you. I fully admit the sense of your remark; but there is no occasion to trouble yourself, for it goes out and comes into tune of its own accord." This same lady is exceedingly deranged, and has been so for thirty years; yet she is in the habit of indulging in philosophical speculations on the capacity of her mental powers. We instance one; when we happened to overhear her say, — "There can be nothing the matter with me. I have full possession of my reasoning faculties. I know that what I am now leaning upon is a table; that object before me is a chair: I fee convinced such is the case — therefore I am competent to combat the world at pleasure."

of high activity. So also the faculty of language is frequently observed to be either diminished in its activity, or to act faultily, when the words are few and misapplied; or, on the contrary, to be in a state of high excitement, exemplified in a volubility of utterance truly astonishing. Patients thus affected will often continue talking incessantly for days together; indeed, long after the organ of voice, from over exertion, has become incapable of its office, and the motions of the lips and gestures are all that proclaim the unabated disposition to harangue.

The reasoning faculties are so frequently affected, that *loss of reason* is a common name for all the forms of insanity; and those who have paid little or no attention to the subject may feel startled when they are informed that the reasoning powers, in many of the most decided and obstinate forms of insanity, are not only perfectly untouched, but frequently manifest unwonted energy. The reasoning powers, in fact, harmonise with the general state of the cerebral organisation; the promptings of the other faculties at all times furnish the data upon which ratiocination is grounded; and these, perverted in any way, generally find the reflective powers apt to admit the propriety of their desires. In themselves, however, the reasoning faculties may, like all the others, be perverted, elevated, or depressed.

The insane are more frequently inconsistent,

their discourses rambling, and all their actions incongruous. There are some, however, who reason with remarkable precision and acuteness. This exaltation of the reflective faculties has been in many instances so remarkable as to attract the particular attention of more than one excellent writer on the subject, who have spoken of it under the appropriate title of "reasoning madness." That reason is not always in fault, is further proved by those singular cases in which the insane themselves are aware of the approaching paroxysm; desire the application of restraint in order to prevent them from doing an injury to themselves or others; and mention the probable period at which they may, without risk, be again set at liberty.*

The mental faculties, then, are susceptible of derangement in a variety of ways; a position which is abundantly proved by their perverted, diminished, or increased manifestations. But every one of these derangements may be considerably modified, both individually and as combined with other acting fa-

* We have frequently had such cases, and consider them the most distressing of any. A lady now under our charge is an unfortunate instance of this affliction. Though she admits her insane acts and deeds, her loose expressions, and deep execrations, her answers invariably indicate the horror with which she views them. "I know it, I know it, and deeply lament my state; but what can I do? I have not the power to control either my speech or actions, though sensible of their impropriety."

culties; for the disordered faculties of the mind combine and produce a variety of results in the same manner as the healthy powers. The various symptoms mentioned are but the disordered manifestations of different organs, and not particular and distinct diseases.* The same cause may lead to disorder of very different faculties, precisely as the sight of the same external object may, and does, suggest entirely dissimilar notions and reflections to different individuals, or even to the same individual at various times.

We thus readily conceive how one labouring under functional derangement of the brain may experience alternations of fury, of apathy, of pride, of great humility, of vanity and indifference, of a mischievous disposition or gentleness, &c. The same law holds in regard to the parts of the brain which represent the several mental powers, as to those which are charged with the offices of organic life: they influence each other mutually in their manifestations; andprecisely as derangement of the functions of the kidney is generally accompanied with morbid phenomena to a greater or less amount in one or other of the vegetative functions, so is disorder of the organs of common sensation, self-esteem, &c. accompanied by morbid changes in one or more of the cerebral parts, or in some other portion of the nervous

* Spurzheim, loc. cit., p. 301.

system, — which, taken in the aggregate, is the instrument of animal life. We cannot, therefore, be surprised either at the number of symptoms met with in different cases of insanity, or at their modifications in the same case at different periods.

CHAPTER III.

PREDISPOSING CAUSES OF INSANITY.

Among the most powerful of all the causes predisposing to insanity, may be reckoned the constitution received by offspring from their parents: if there be family resemblance, there are also family liabilities, not only to this disease, but also to a host of others, such as scrofula, consumption, gout, apoplexy, dropsy, &c. Yet we must admit that what is called hereditary tendency to insanity is often taken in too wide a sense. The offspring of parents, one or other of whom may have become mentally deranged, from a combination of many powerfully exciting causes of insanity, — such as unmerited misfortune, great privations, severe domestic afflictions, &c. — if their lot be cast happily in life, are probably not more liable to insanity than the average of mankind. If these individuals exert due caution to avoid cerebral excitement of every kind, and lead quiet and sober lives, they will have little or nothing to apprehend on account of their parentage.

Insanity is much more common at some ages than at others; for the disease is hardly known in in-

fancy, and very rarely occurs after sixty years of age: between twenty and forty it is undoubtedly more frequent than at any other time. Still instances are not wanting of children, and individuals in the decline of life, becoming affected. Idiotcy, on the contrary, is common in early life, when it mostly depends on general deficiency of the powers of the brain: hence it is occasionally seen to follow the progress of chronic hydrocephalus, injury to the head, severe general disease, &c.

One of the most deplorable species of idiotcy we are acquainted with is that which occasionally attacks children of precocious intellectual and moral endowments: the faculties, it would seem, sometimes prove too active for the organisation, which becomes worn out, or deteriorated to such a degree, that the prospect of a brilliant career is frustrated by imbecility or death. Less degrees of this disappointment are of more frequent occurrence; children, who are remarkable for their quickness and ability, often indicate in manhood nothing above mediocrity: just as in the vegetable world, the plant that is forced into bearing at too early a period soon becomes sickly, ceases to produce, and withers prematurely. Great general susceptibility, with precocious developement of the moral and intellectual faculties, may therefore be set down as one of the predisposing causes of cerebral derangement.

Many of the maladies to which we are ex-

posed in after life would seem, in so far as their type or character is concerned, to depend on the treatment we receive as infants: thus it is found that a great proportion of sthenic insane adults were strong children, who, probably, from having been highly fed, and habitually stimulated, were rendered susceptible of disease in its more acute form, upon exposure to the exciting causes of morbid action generally. On the other hand, early bodily weakness, and indifferent treatment, although occasionally followed by a vigorous display of talent, seems often to lay the foundation of insanity.*

In speaking of the predisposing causes of cerebral derangement in youth, we have seen that general susceptibility of constitution, with very early and unusual activity of the faculties of the mind, were sometimes efficient in producing idiotcy. All that tends still further to excite the mental faculties of children thus constituted may be held as conducing to bring about this consequence; which, therefore, ought especially to be guarded against. The education, under such circumstances, will require great caution, and should be conducted as much as possible in the open air, so that the organs of the senses and the perceptive powers may be exercised upon the physical qualities and relations of external objects, at the same time that the body is strengthened by exercise, and the inhalation of the uncontaminated atmosphere of the fields.

* See lives of Pascal, Cowper, Zimmermann, Lope de Vega, Tasso, D'Aubigny, &c. &c.

Here, in enumerating the causes predisposing the system to aberration of mind, we must not omit to draw the reader's attention to the influence which the mind of the mother is supposed to have over the fœtus in utero. Many eminent physicians deny that the imagination of the parent has any influence on the child; but, with all deference to their opinion, we are induced to believe that the mind of the mother affects the offspring very materially; and well-attested facts, as well as physiological reasoning, bear us out on this point. That this notion was entertained in former times, appears from the account preserved in ancient writings; for instance, the contrivance which the patriarch Jacob is represented to have employed in order to augment the number of calves, the lambs, and kids, which, according to the agreement, were to fall to his share. (Gen. xxx. 37—39.) Galen, in his address to Piso, remarks that the ancient Greeks and Romans, in order to have beautiful children, took especial care that the mother should behold only agreeable paintings, beautiful statues, and other objects fitted to excite the most pleasant and delightful mental images. The tyrant Dionysius, who was deformed and ill-favoured himself, in order that he might have a comely issue, is said always to have had a beautiful picture set before his wife, that by the force of fancy she might conceive the likeness of it.

The fine novel of antiquity, "The Loves of Theagenes and Chariclea," by Heliodorus, is founded

on this idea; and, in fact, Hippocrates as we have seen, and Galen, and all the great authorities both before and since, have advocated this notion.

The poet Hesiod certainly has gone considerably further in this idea; and such of our readers as are acquainted with his writings may recollect his advice to married men: —

> Μηδ' απο δυσφημοιο ταφου απο νοστησαντα
> Σπερμαινειν γενεην, αλλ' αθανατων απο δαιτος.
>
> Hes. *Op. et Dies*, 735, 736.

It is generally admitted, that the nerves are the media for the conveyance and transmission of impressions to and from the brain. It was formerly the opinion of anatomists and physiologists, that there was no nervous communication between the mother and child prior to birth: but the late Sir Everard Home satisfactorily demonstrated in his Croonian Lecture, delivered before the Royal Society Nov. 18. 1824, and subsequently published in the Philosophical Transactions, that the notions of former anatomists were incorrect, and that there is a communication between the nervous system of the mother and the child, —that any violent agitation of the parent may be conveyed along the nerves to the child, and in this way affect it.

Again, every portion of the human body is formed from one fluid — the blood; which is conveyed from the heart to every other part of the frame in vessels; and as fast as the body wastes away, or is removed by the absorbents, the nutritious arteries

deposit from the blood fresh matter. The absorbent vessels are constantly in action, removing the old substance of the human body; and the nutritious vessels are perpetually depositing fresh substance in its place. These nutritious vessels, which exercise such an important function in the animal economy, depend for their healthy action on the *influence of the nerves*, their concomitants; and any derangement in the nervous system affects the whole frame, by modifying the action of the arterial system. So, with regard to the infant, the same dependence exists between the arteries and nerves as in the adult. Every portion of the child previous to birth is secreted from the blood; and if a violent agitation in the nervous system of the parent, produced by fright, grief, or any other cause, be communicated, as it must necessarily be, along the nerves of the mother to the nervous system of the infant, the action of the nutritious arteries (being under the dominion of the nerves) must be modified; and in this way we may satisfactorily account for malformation in the fœtus being produced by constitutional disturbance in the mother through nervous excitement. M. Esquirol observes, that it is often in the maternal womb that we are to look for the true and predisposing causes of mania and imbecility. The same writer also remarks that, during the agitated periods of the French revolution, many women then pregnant, and whose minds were kept constantly in a state of anxiety and alarm, and their nervous

systems thereby rendered irritable in the highest degree compatible with sanity, were afterwards delivered of children whose brains and nervous systems were similarly susceptible, insomuch that as children they were subject to spasms, convulsions, and other nervous affections, and in youth to madness or imbecility, and that without almost any exciting cause. The same was observed during the Irish rebellion and the American revolution, when, in both countries, from the minds of the inhabitants being in a state of great excitement, a vast number more of paralytic, idiotic, and unhealthy children were born than at any other time.

We knew an instance of a female who was subject to shocks of terror inflicted by her husband when intoxicated; which used generally to occur once a month, consequent on his receipt of a pension. She was afterwards delivered of a well-formed though delicate child, who, up to the age of eighteen, continued subject to panic terrors at intervals of a month. Dr. Combe mentions a case of a young lady who suffered much from many forms of nervous affection, the constitutional susceptibility of which had been produced by the intense excitement under which her mother laboured whilst pregnant; and another case marked in its character came under our observation some time ago. A lady and her husband, who had lived together in mutual endearment for a number of years, surrounded by friends,

and gratified by every blessing, were obliged to part for a period, the first time since their marriage. We were present at the parting interview ; and the touching lines in Rowe's *Lady Jane Grey* vividly occurred to our mind —

> " Oh! wherefore dost thou soothe me with thy softness?
> Why dost thou wind thyself about my heart,
> And make this separation painful to us ? "

He left her under the care of some excellent relatives, with every bright prospect of a speedy return, and a renewal of their quiet, and mutual happiness. The issue, however, proved only another verification of the oft told tale of the moralist — that transient is all earthly felicity : indeed, in the words of the poet —

> " The spider's most attenuated thread
> Is cord — is cable — to man's tender tie
> On earthly bliss : — it breaks at every breeze."
>
> YOUNG.

Mr. —— had not been absent many weeks before his wife received the abrupt and melancholy intelligence of his sudden death.

The shock was severe indeed, and the more melancholy through the period of her advanced stage of pregnancy. By our recommendation she was removed far from the scene that agitated her, and induced such painful and melancholy recollections, in which the happiness of by-gone days was strongly associated.

After the lapse of a few months, in which the soothing influence of time had greatly contributed to calm her feverish mind, she was confined of a child. This infant, however, differed materially from all the rest — for she had had many previously, remarkable for their robust health and strength of nerves — being diminutive, unhealthy, and eventually becoming idiotic.

The period of life most exposed to mental disease is that in which the passions may be considered to be naturally the strongest and most active. M. Pinel observes, that among the cases at the Bicêtre, during the third year of the republic, he clearly traced the leading causes of these diseases to the vivid temporary emotions of the mind. "Out of 113 cases," says he, "which I took pains to make myself acquainted with, 34 were reduced to this state by domestic misfortunes, 24 by obstacles to matrimonial unions, 30 arose from political events, and 25 were traced to religious fanaticism."

Georget's statements coincide with these; and we have numerous examples quoted in his *Traité de la Manie*. In the hospital La Salpétrière it is a common belief, that none become insane except by "revolutions in the economy of the mind."

In another table given by M. Esquirol is the following proportion of cases from mental causes. Out of 273 admitted during 1811 and 1812, he reckoned that 105 originated in domestic chagrins,

77 were occasioned by poverty and reverse of fortune, 45 by disappointment in love, 38 by fright, and 8 by fanaticism. The failure of the South Sea scheme was a source of much mental disease. And it is stated by a writer of veracity in the North American Quarterly Review, that, a short time previous to the abolition of lotteries in Great Britain, a scheme was formed in London which contained several magnificent prizes, — twenty, fifty, and even one hundred thousand pounds each : the display of this scheme induced many adventurers to risk their all in the purchase of tickets, — and the night following the drawing was signalised by *fifty suicides !*

It is still uncertain whether sex has any influence in predisposing to insanity or not : the number of men and women affected, in some countries, has been said to be nearly equal. In Germany, the number of males is said considerably to exceed that of females ; in France, the opposite statement has been made on very secure grounds. It is probable, therefore, that sex has no necessary and intrinsic influence in predisposing to insanity. The differences that exist, or that have been presumed to exist, in various countries, in regard to the relative numbers of each sex labouring under derangement, must depend on the social condition of the sexes. Every Englishman is struck, on visiting France, with the much more active part taken in general business by the women of that country than

in England. Females in France are, most probably, exposed in a greater degree to the immediate exciting causes of insanity than either in England or Germany.

In spite of the popular persuasion to the contrary, it is impossible to say that one season of the year predisposes to insanity in a greater degree than another. The lunar influence has never been satisfactorily proved to have any power in producing an ebb and flow in the vital spirits of the human body, as it does in the waters of the ocean. The belief in the influence of the moon over insanity (hence called lunacy) appears to be entertained in ignorance as profound of the general physical laws that govern the universe, as in contempt of the particular physiological laws that regulate the human constitution. Accidental or accessory conditions of the atmosphere certainly have far greater influence over the state of the mind than the more uniform variations of the seasons. We feel dull and depressed during weather that is cold and foggy, whether it happen in May or November; and, on the contrary, elated in spirits under the influence of a clear and dry atmosphere, whether in December or June.

On the same principle by which individuals of every variety of mental constitution are liable to become insane, we find insanity conjoined with every possible variety in the form of the head. Nevertheless one of the predisposing causes is, unquestionably, excessive activity in the manifestation of some par-

ticular faculty; and, in conformity with this fact, we find indications of unusual activity, or the reverse, in certain parts of the brain in many of the individuals affected. Upon this point M. Foville says, "We do frequently observe among the insane the most regular and harmonious configuration of the head imaginable; but it is also certain that we find a much greater number of faulty conformations than we should discover among an equal number of healthy individuals selected by chance." Allowing, however, that configuration of head possesses a slight influence as a predisposing cause, and that a well-balanced head is in some measure to be regarded, the same as a well-balanced mind, still it must not be forgotten that size, or free developement of an organ, is not invariably indicative of its extent of action; for its powers do not so much depend upon magnitude and shape as upon specific tone and healthy principle.

It is not easy to recognise any marked predisposing influence in professions or modes of life; though, speaking generally, we may say that professions predispose to insanity, in the same proportion as they expose those who exercise them to sudden vicissitudes of fortune, whether they be successes or reverses.

Perseverance in a course of intellectual application may occasion serious and extensive functional derangement of the mental faculties generally. The chemist who shuts himself up in his

laboratory for a succession of days or weeks, — the poet who secludes himself from the world, and scarcely takes any sustenance, in order that the operations of digestion may not impede the progress of thought, — each runs the risk of so far over exciting one or other of the intellectual faculties, and injuring his general health, that an attack of cerebral derangement may be expected to supervene.

Poets, and those in whom the imaginative faculty is inordinately developed, are particularly liable to morbid affections of the mind. Aristotle laid it down as a maxim, that "Nullum magnum ingenium sine mixturâ insaniæ." This philosopher carried the sentiment to so great an extent, that he affirmed no poet was in possession of his right mind. He quotes, in illustration of his opinion, the case of Marcus, a citizen of Syracuse, who, when he had lost his senses, became a fine poet; but who, on recovering them, ceased to possess the talent. It has been maintained, for similar reasons, by the poet Dryden, that —

> "Great wit to madness nearly is allied,
> And thin partitions do these bounds divide."

The same rule applies to the extraordinary developement of any, or all, of the mental faculties. In illustration of this we may mention the names of the poets Cowper, Collins, Tasso, and Nathaniel Lee. It is also said, that the illustrious author of the "Principia" was mentally afflicted when he wrote

his comment on the Revelations. Lucretius was supposed to be insane when he composed the splendid work "de Rerum Naturâ," more particularly those passages relating to death and the state of the soul, in his third book. Des Cartes died of an affection of the brain. Lord Byron frequently laboured under excessive exaltation of sentiment. The mind of our sweet poet Burns was frequently influenced by delusions of the imagination. The late Mr. Hogg appears to have been somewhat similarly affected. Sophocles was accused of φρενῖτις before the tribunal, and only acquitted of insanity by reciting his "Œdipus" at Colonos. Pascal, the mathematician, was hypochondriacal. The great novelist and poet, Sir Walter Scott, suffered through the same cause. Swift and Rousseau were insane. Luis de Camoens died whilst under the influence of this disease, at Lisbon; and the immortal author of Don Quixote, he who, according to Byron, "laughed Spain's chivalry away," died mad in a hospital at Madrid.

Over exertion of the mental faculties in youth we have seen to be occasionally followed by very melancholy consequences.* The same cause may,

* Cicero points out the danger arising from inordinate exertion of mind, and has laid down some excellent rules on the subject. M. Van Swieten relates some interesting cases arising through "literary watchings." In the consultations of Wepfer we find a singular instance, worthy of observation, wherein a young man aged twenty-two, through intense study, was suddenly attacked with a fit of the disease. All his limbs stiffened in the attitude

and unquestionably sometimes does, produce similar ill effects, as we have illustrated, in riper years: generally, however, in manhood the brain is capable of supporting every ordinary and even much extraordinary exertion of an intellectual kind without suffering essentially, — it merely becomes fatigued, and then the operations in which it is engaged must necessarily be suspended, or such a state of exhaustion supervenes as compels the reluctant student to suspend his labours for some considerable interval.

Absolute idleness may be stated as a frequent cause of derangement. Those who have no call upon their energies to provide for their daily wants, or are not so fortunate as to have created some occupation for themselves, are the victims of ennui and hypochondriasis to a greater or less extent; and insanity is without doubt relatively more common among the wealthy and indolent than among the classes who by necessity are laborious.

A larger proportion of unmarried than of married persons are said to be affected with insanity; but there may be many causes for this, independent of the state of celibacy.

It is a curious fact, but impossible to be con-

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he was in when the disease first seized him; he remained upon his seat, holding his pen, and fixing his eyes upon the paper, so that he was thought to be still at his studies, till, being called to and then shaken, he was found to be without motion or sensation.

troverted, that this malady is one of the attendants upon civilisation and intellectual cultivation. According to many well-authenticated accounts, it is comparatively unknown among savages; and although we should consider this statement very questionable, we can easily imagine that in a state of barbarism its virulent activity is rarely excited. It is easily conceivable that the mere animal in the shape of man, who eats, drinks, and sleeps, giving no thought for the morrow, is less liable to become deranged than he of a more polished and meditative character. Von Humboldt states that he found few cases of insanity among the American Indians; and a similar remark may be applied to Russia, China, and Turkey,—in which we may instance the hospital at Grand Cairo, a city containing 300,000 people, wherein M. Desgenettes found only fourteen afflicted with a nervous malady.

As health cannot be said to exist unless a perfect harmony of action reign throughout the functions of the body, one organ or function cannot be preternaturally excited but at the expense of the others. It is only by looking at the subject in this light, that we can understand why children who discover remarkable genius are often so short-lived; because a great portion of the nervous principle, which should be equally disseminated throughout the body, is called off to become subservient to the operations of the mind. Quintilian lost a promising son early in life, and he attributed his pre-

mature death to the "humours" which ought to have assisted in nourishing the body being called off to the brain.

It is an observation, and frequently correct, that many individuals who become insane have been remarkable all their lives for a certain flightiness, or eccentricity of character and disposition: this amounts to the same thing as saying that those persons have particular parts of the brain of predominant activity, a condition which we have already specified as a predisposing cause.

What is termed temperament, or constitution of body, has been held to have some influence over the *form*, at least, of insanity to which individuals are subject. We speak familiarly of melancholic and excitable temperaments, deriving the terms evidently from peculiarity of mental constitution. The melancholic temperament has been said to predispose to particular derangement of one or a small number of faculties, so that individuals of this habit of body who become insane are generally monomaniacs. The sanguine temperament again has been said to be most frequently conjoined with mania, or general disorder, with excitement of the whole of the affective and intellectual faculties. These deductions, however, are of comparatively little practical value.

CHAPTER IV.

PROXIMATE CAUSES OF INSANITY.

Speaking, as we so frequently do, of insanity under the name of functional derangement of the brain, our views in regard to the part more immediately affected in this disease are apparent enough. Assuming that the brain is the organ, or, more properly speaking, the aggregate of organs of the whole of the mental functions, propensities, and sentiments, as well as intellectual faculties, we believe that a morbid condition of the brain generally, or of one or more of its component fasciculi, is the cause and accompaniment of the irregular or disordered manifestation of these functions.

That the brain is the organ through which the mind manifests its operations during its union with the body, is now an almost undisputed principle in physiology. The facts upon which this is founded are many and conclusive. We know that all sensation takes place in the brain, from the circumstance that sensation is not excited if the communication of the part where the impression is applied with the brain is cut off by a division of its nerves, as long as the continuity of the nerves with the brain is pre-

served, sensation can be produced; but when this continuity of nervous texture is destroyed, all sensation is lost. For example; interrupt all nervous communication between the brain and the hand, by dividing or applying a ligature to the nerves going from this organ to the hand, and all feeling is immediately suspended: we may burn the hand, or cut it, and the individual experiences no sensation of pain.

"In favour of this opinion," says an able writer*, "that the seat of sensation is in the brain, it may be observed, that sensations are repeated when their existence in their supposed original seat is precluded: thus persons have the sensation of vision, hearing, &c. in their sleep, when their senses are not only indisposed to be acted upon by the positive causes which otherwise excite them, but when also the objects represented by these sensations are either at a distance, or do not exist at all. Thus also the sense of pain in the toes occurs after amputation of the limb to which they belong. Thus also the sensation of the presence of the object. So vision occurs in the dreams of those who have been many years totally blind from gutta serena."

In order to show the dependence of this faculty upon a healthy state of the brain, a case is related by Hildanus, and cited by Van Swieten, of a boy of quick parts who had a depression in his skull

* G. Pring, on Intellectual and Moral Relations.

near the lambdoidal suture, produced by a blow on his head. No severe symptoms taking place, the depressed portion of cranium was left without any attempt to remove it. The boy's memory began gradually to fail, and he became idiotic.

Dr. Prichard relates the following interesting case illustrative of the same point: — "A student in an American University, possessing a good share of classical knowledge, was suddenly deprived of all his acquisitions in consequence of being attacked with a severe brain fever; his knowledge of Latin entirely left him, and he lost all recollection of the grammar. When he regained his bodily health, being naturally of a persevering disposition, he began again the first rudiments. Every thing was quite new to him: he passed through the accidence and syntax in his grammar, and was learning to construe; when one day, when he was making a strong effort to recollect a part of his daily lesson, the whole assemblage of ideas which he had formerly acquired and lost suddenly reappeared to his mind, and he found himself able to read and understand the Latin authors as he did before his illness." Dr. Prichard, in this case, admits that the organs of the brain more particularly affected had gradually approximated to a healthy condition during the period of convalescence, and had been so far restored to the healthy tone, as to be capable when roused of suddenly resuming their healthy actions.

The great Dr. Cullen (in his *Practice of Physic*, vol. ii. p. 38.) observes, "We cannot deny that the operations of our intellect always depend upon certain motions taking place in the brain;" and Dr. Gregory, in speaking of the intellectual functions, says, "Omnes hæ facultates (videlicet, memoria, imaginatio, judicium) tam purè mentis sunt, quòd primo intuitu haud quicquam corporei iis inesse videatur. Docent tamen morbi qui eas impediunt, certum cerebri statum, ut bene exerceantur requiri; idque sensuum internorum primarium esse organum."

Magendie, the French physiologist, observes, "that the brain is the material instrument of thought: this is proved," says he, "by a multitude (une foule) of experiments and facts."

We dwell much on these and other authorities, as it has been foolishly supposed by some that the consequence of its admission must lead to materialism, and remove notions of moral responsibility, upon which are founded all our ideas of right and wrong. Dr. Doddridge, an author far enough removed from the doctrine of materialism, affirms, "that he doth not find himself to think, see, hear all over, in every part of his body; but the seat of cogitation and reflection he finds in his head; and the senses, by which a knowledge of external nature is conveyed to him, all tend to the same place." It is plainly something which resides, then, in the region of the brain that by the medium of the

nerves governs the body, and moves the parts of it. Others equally opposed to the doctrine of materialism, and eminent for their Christian piety, do not scruple to admit, "that the brain is the great instrument, or condition rather, of thought and contemplation."

Bishop Brown, the excellent author of the *Procedure of the Understanding*, who contends strenuously for the distinct nature of spirit, soul, and body, says, "If we have a soul within, which could think and reason independently of all material and bodily organs, we never should be tired of thinking; on the contrary, we feel it to be labour of the brain, and we find ourselves as much wearied with intense thought as with hard physical labour."

If we have recourse to the facts of comparative anatomy, we shall find, in tracing the gradations of nervous structure in the animal creation, that in proportion as we discover the developement of the nervous system, so in exact proportion do we find the intelligence of the animal increase.

In the lowest scale of animals, where they approximate almost to the vegetable tribe, we can discover nothing analogous to nervous texture; but as we ascend in the scale, so do we find that the nervous system is manifested, and with it instinct or intelligence, until we come to man, in whom we see the most complicated nervous fabric, and a proportionate developement of mental power.

In infancy we find that the brain is but imper-

fectly formed ; and in this stage of human existence the mind is imperfectly manifested. As the child increases in growth, so do we find the brain expand and the mind develope itself. In manhood, after the brain is fully formed, the mind is fully expanded.

The brain being in every instance the seat of all sensation and mental power, the mind cannot be deranged without a diseased condition of the organ through which it is developed taking place ; so that in partial insanity, when one faculty of the mind is deranged, the organ which is the medium for the manifestation of this faculty is in a state of disease.

It is also said, that a remarkable increase of temperature takes place when any particular organ of the brain is in a state of disease, and that an excess of heat may be observed by the application of the hand externally to the seat of the affected organ. Dr. Elliotson, and several other physicians, who take this view of the subject, represent themselves to have frequently noticed this phenomenon.

Of the kind or nature, however, of the morbid state which precedes or accompanies deranged manifestations of the mental powers, we are bound to speak with great reserve. The *post mortem* researches, to which we shall have occasion to refer, will be found to be much more fertile in results when instituted under the guidance of knowledge, and conducted with adequate care, than was for a long time, and, indeed, than is still generally supposed. Cases of any standing that

terminate fatally are, we may venture to say, *never* investigated by the skilful pathological anatomist without obvious traces of structural disease being discovered; nay, even cases of what may be termed sympathetic insanity, in which the mental derangement is consequent upon irritation in some distant but important organ of the body, and which we might naturally expect to be most deficient in evidences of organic lesion, have still been found connected with manifest alterations in the colour and consistency of the cortical substance of the brain.

Now, the organic changes so uniformly found in the brain of individuals who have died after having long laboured under mental derangement are, by common consent, allowed to be such as supervene upon undue vascular or inflammatory action. The appearances, too, which have been detected in the brain after an attack of mania that has proved fatal, without having lasted for any great length of time, seem fairly enough referable to the same kind of unnatural vascular action. So much may be granted: still it is difficult to conceive of the occurrence of mental derangement, under all the variety of circumstances in which it appears, as one and the same disease.

The insanity that attacks the youthful and vigorous, living in the midst of abundance, warmly clothed and sheltered from all the inclemencies of the season, must surely differ from that which in-

vades the worn-out and feeble, long inured to cold and hunger, and exposed to hardships of every kind. Pathological inquiries are not, perhaps, sufficiently advanced to admit of a definitive judgment being pronounced upon this point. In the present state of our knowledge, however, thus much may probably very fairly be inferred ; — that, whatever the essential nature of the organic change may be which precedes and accompanies derangement of the mental manifestations, it is modified in amount as well as kind, in every individual case, by the general constitution of the patient, the circumstances under which the disease originates and advances, and the causes which have proved immediately efficient in producing it. This we must also know in practice, that one and the same form of treatment is not applicable in every case alike ; — another circumstance, that proclaims modification at least in the nature of the organic malady, upon which the functional derangement must unquestionably depend. The amount of functional derangement we, as general pathologists, are aware, does not uniformly or necessarily depend on extent of organic change. Even what we call nervous susceptibility differs widely in different individuals : some suffer extensive injuries, and undergo formidable operations with really a very small amount of bodily pain ; others suffer acutely from the most trifling accident — the prick of a needle occasions them extreme agony, perhaps even causes them to faint away.

Insanity, it must be very evident, then, is a generic word applied to functional derangement of the brain, occurring under extremely diversified, and often even opposite, states of the general system, which require corresponding modifications in the manner of accomplishing the most simple and obvious therapeutical indication — that, namely, of abating irregular vascular action. This we shall see is to be accomplished in various ways: sometimes by attacking the disease directly in its essence and in its seat; sometimes by the abstraction of blood, and the antiphlogistic regimen; at others by improving the general health and restoring the balance of the circulation, by imparting strength to every part of the system alike. This portion of the subject will of course be particularly considered when we come to speak of the treatment.

CHAPTER V.

GENERAL AND EXCITING CAUSES OF INSANITY.

From all that has preceded in this Essay, it will be evident that we regard the cause of insanity as corporeal; and are even careful to avoid the expression "disease of the mind*:" the brain and the nervous system are the parts immediately or mediately affected in every case of disordered manifestation of the mental faculties.

If we believe that the mind itself admits of undergoing those slow and progressive changes which lead to disease, and that it is not necessary that this malady should be associated with, or the consequence of, *material* disorganisation, we shall never be able to form correct notions of the nature of this affection, or, what is much more important, be competent to apply remedial agents successfully for its removal.

With Dr. Spurzheim we conceive the soul to be the immaterial principle or essence included within the body, itself subject neither to disease nor to

* "We have decisive evidence that a certain general state of body is in all cases necessary to the production of insanity; consequently that brainular derangement may sometimes be the leading general exciting cause, and sometimes the particular effect of general leading causes."—*Baillie's Morb. Anat.*, p. 214.

death, but for its manifestations having need of certain corporeal instruments that are liable to disease, and which occasion the perversions, diminutions, or exaltations of the mental powers before mentioned as characteristics of insanity.

The most frequently exciting cause of idiotcy is congenital malformation of the brain. The majority of born idiots have a brain imperfectly formed in every material point requisite for the due fulfilment of healthy functions, and inadequate for its mental offices; and it signifies little whether this is occasioned by incipient disorganisation, accumulation of fluid, or otherwise. Some few have heads of the *natural dimensions* and appearances; in which case we may suppose the brain to be insufficient in its internal organisation for the display of healthy functions.

Idiotcy is seldom quite complete; that is to say, it rarely happens that the whole of the affective and intellectual faculties are suppressed: if there be but one exhibited, we may be assured that the organic activity to which the function is attached exists in the brain. Idiots are frequently cunning, destructive, acquisitive, &c. Some show a partiality to music; some even excel, without exhibiting a shadow of what is called sense or judgment, by their mechanical or verbal memory; and others, again, seem to feel the necessity of communicating their sensations, but never succeed, from

inability to acquire the ordinary vernacular sounds, or a knowledge of written signs.

Partial idiotcy, in the truest sense of the word, is not incompatible with very high intellectual and moral endowments. Those who cannot distinguish one musical note from another are as essentially idiots in regard to tone; as those who cannot see any difference between bright green and scarlet are, to all intents and purposes, idiots in regard to colour. A want of conception of numbers is a marked character. Great hebetude also, and occasionally even total deficiency in some one or other of the affective faculties, are encountered, owing undoubtedly to imperfect action, or perhaps to the total absence of the stimuli necessary to the healthy progress of the particular propensity or sentiment in fault.

Acute disease, and injuries to the head, are other occasional causes of imbecility of this kind.

Insanity may also be traced, though rarely, to merely mechanical causes; for it has been known to follow injuries of the head of various descriptions, the exposure of this part uncovered to the burning rays of the sun, the growth of exostoses or bony humours from the under surface of the skull, &c. It is also now and then traceable to debilitating causes, which act injuriously on the system generally, and in this way upon the brain; or which act upon some particular organ, and through this sympathetically upon the brain.

Thus, insanity sometimes makes its first approaches when the body is reduced by fever, or privations; indeed, the delirium that so constantly accompanies fever differs from insanity in nothing save its occurrence as one of the symptoms in an acute disease, and its subsidence along with the state of febrile excitement which gave rise to it.

Protracted exposure to intense cold, the pernicious habit of dram-drinking, debauchery, excess of any description, great loss of blood, whatever produces great exhaustion of the system, or the debility that ensues from total inaction of the mental powers, — tend to the same result.

It is not difficult to conceive the mode in which the brain is sympathetically affected in many disorders of particular systems, or individual organs in the general economy; nor why certain forms of its disordered manifestation should have been denominated hypochondriasis, melancholy, &c. The brain is not merely the seat of the affective and intellectual faculties, but the centre of general sensation, and the source of nervous energy: it takes unceasing cognizance of all that is passing in the system, and supplies every organ with the amount of the peculiar kind of stimulus which is essential to enable it to perform its functions. All know familiarly how bodily pain affects the mind, — how irritable we become, and incapable of thought and sympathy, when suffering even from such a trifling malady as toothache.

Nor is the amount of influence upon the brain, in consequence of morbid action in some distant organ, always in the ratio of the quantity of positive suffering endured; many of the most important functions of vitality go on without our knowledge: in these the brain is nevertheless no less efficient than in those whose offices are inseparably linked with consciousness. Hence we are not surprised that the presence of worms * in the intestinal canal of a child should sometimes be attended with such symptoms as squinting, blindness, drowsiness, convulsions, and various other formidable characteristics of dangerous diseases in the brain itself; nor that deranged digestion, and faulty action of the liver or other abdominal viscera, should so frequently prove an immediate cause of mental derangement.

A celebrated writer of France † has gone so far as to maintain that the causes, next to those of a moral nature, which are most influential in producing derangement of the cerebral functions, are irritations propagated from the stomach, duodenum, and liver to the brain; and farther, that moral causes, or causes acting directly upon the brain, frequently only take effect there, after having oc-

* The following singular circumstance is related by Jones (Med. Phil. and Vulgar Errors, p. 73.):—"An idiot of seventeen years' standing, being one day very thirsty, drank near a pint of thin white lead paint; after which he discharged such a quantity of worms as caused him to recover his senses."

† Broussais, De l'Irritation et de la Folie, 8vo. Paris.

casioned disorder in the stomach and intestinal canal, as if in some individuals the brain required the re-action of derangement in the abdominal viscera to produce such a degree of irritation as was incompatible with the continued healthy manifestation of its function. And it is not improbable that this view may, to a very considerable extent at least, be grounded in truth. We know that the first effect of disagreeable moral impressions, of uneasy feelings, of excitement of the mind, in innumerable instances, is to produce derangement of the functions of circulation, digestion, &c., which are often severely affected when the brain itself seems to escape almost entirely; and it is perfectly consonant with sound physiology to ascribe a certain influence to the irritation, fastened, as it were, upon, and propagated from, this new centre. The more intimate we have become, in the course of time, with the various forms of functional disorder of the brain, the more are we impressed with the necessity of directing attention to the state of the chylopoietic viscera, in endeavouring to remedy the disease.

The suppression of any habitual discharge, as of the hemorrhoidal flux in either sex, of the periodical evacuations in females, &c. has been held by competent authority as influential in causing functional derangement of the brain. Where there is a strong predisposition to disease of this kind, it would be rash to deny the influence of

such causes: they are not, however, observed to be very commonly efficient in the production of insanity; and their influence, perhaps too much neglected in England, has probably been often highly exaggerated on the Continent. All the other exciting causes of insanity added together do not probably amount to the hundredth, or even the thousandth part of such as originate in, or act directly on, the brain itself, considered as the organ of the affective and intellectual faculties.

These are what have commonly been termed the *moral* causes of insanity; an objectionable description on many accounts, and instead of which the word *functional* has been proposed *: though we are inclined to consider *idiopathic* as a still better epithet. In the same way as the instrument of the organic functions — say of digestion and chylification — is liable to be disordered by the excitement occasioned by too large a quantity of food, or by food of an improper kind; so the instrument of the animal functions is exposed to derangement under the excessive or too long continued action of their appropriate stimuli, and the continuance of states analogous in their nature to what we denominate pain, when we speak of the disagreeable affection of the nervous parts presiding over common sensation. Strong odours, for example, sometimes affect the olfactory nerves so powerfully, that

* By Dr. A. Combe, in his Observations on Mental Derangement.

the impression, made perhaps in a moment, is not got rid of for hours or days. The effects of sudden or long-continued exposure to intense light is often extremely distressing, and followed by pain in the eyes, imperfect vision, or even total blindness. Uninterrupted application of the eyes to any object produces a similar effect. Loud noises are apt to produce a ringing in the ears, that lasts long after the exciting cause has ceased; and all who are susceptible to the influence of music know what it is to be haunted with what we have heard expressively designated as the ghost of a tune: in the whole of these cases the sensation remains long after the impression has ceased, and is very commonly succeeded by temporary indistinctness of hearing, or permanent injury to these faculties. The very same thing happens in regard to the internal faculties: the organ of any one of the propensities, sentiments, or intellectual powers, strongly excited or unpleasantly affected, is liable to become deranged in its functions; and the consequence is, that the balance upon which sanity of feeling and intellect depends is disturbed, and the individual loses all command of that function, at least, whose organ is more particularly affected. But the mischief does not commonly rest here: all the parts of the brain are in the most intimate relationship with one another, and morbid impressions are no less certainly propagated among these than healthy ones; so that, instead of a single function disordered, we may

have several, perhaps all, sympathetically affected, and the temperate and judicious individual be transformed, within a few days, into the raving and incoherent maniac.

Functional derangement of the cerebral organs arises in two ways, either from internal activity, or from the stimulus of external objects.* Among the number of the predisposing causes we have placed over-activity of one or more of the faculties; and this is generally conjoined with or dependent on disproportionate power of the cerebral parts intrusted with the manifestation of these faculties. It has been already remarked, that men of genius border on insanity: the peculiar intellectual faculty whose manifestation characterises their genius acts with such energy, that it is apt to escape the control of the powers at large, and to occasion what is called monomania, or to derange the organs of the whole of these when mania is the consequence.

Now that which happens in regard to the intellectual faculties occurs in a ten-fold greater degree in regard to the propensities and sentiments, the cerebral organs of which are much stronger, and generally much more active among mankind, than those of the higher powers: there are unquestionably many more individuals insane from over-active *affective* than from over-active *intellectual*

* Spurzheim. Combe, loc. cit.

faculties. The animal passions are powerfully operative, so much so, if not subdued, as to reduce all the moral and intellectual powers, and even eventually to destroy the control of reason. At first they are held in due subordination, and may, to a great extent, be elevated or depressed at pleasure; afterwards, when reason drops the rein, they become rooted, assume the entire mastery, and subserve the others to their own action. In proof of this, we may adduce the number of victims to the disorder of the sexual propensity; the abuse of which is one of the very frequent causes of cerebral derangement, showing itself either in decline of the mental powers and imbecility, or in some modified form of mania. The feeling that leads man, with so many of the lower animals, to cherish his offspring, when excited to an over-active degree, frequently occasions cerebral disorder. Young women of irreproachable lives, and unmarried, imagining themselves to be pregnant, and displaying great anxiety about their approaching accouchement, may generally be presumed to be labouring under especial excitement of the cerebral part which, beyond all possibility of doubt, has been shown to be appropriated to the manifestation of parental love; and, upon inquiry, the first symptoms of the malady will generally be referable to disorder of the feeling in question. The loss of children is another ordinary cause of the malady, more especially among females. What anguish

can surpass that which the fond mother suffers on the death of her beloved infant! We have known in one instance the mere temporary separation of a lady from a child prove to be the cause of insanity; and we cannot wonder that utter bereavement of a cherished object should so frequently be met with in practice as an immediate exciting cause. Violence done to the feeling of attachment, or its longings unsatisfied, may therefore be instanced as occasioning the disease, as there are few more powerful acting causes than the passion of love, which may be proved by reference to the tables of most of the writers who have taken the trouble to form an estimate of its effects — Esquirol, Pinel, &c. Our own poet Spenser appears to have fully imbibed this truth: he says, in his quaint phraseology: —

——— "So love does raine
In stoutest minds, and maketh monstrous warre;
He maketh warre, he maketh peace againe,
And yet his peace is but continuall jarre;
O miserable men that to him subject arre."
Faery Queene.

Silent love has a more destructive influence on the body than that which is relieved by tears. The lachrymal secretion may act beneficially in relieving the brain of congestion. Also the communication of our sorrows to others: that "sympathy in woe," of which the poet speaks, tends greatly to relieve the mind; — for

——— "The grief that does not speak
Whispers the o'er fraught heart and bids it break."

The sinking and oppression frequently experienced in the region of the heart, in cases of protracted grief, has most probably led to the fallacious notion of this passion giving rise to a broken heart.

Crichton does not appear to think that insanity arises so frequently from the passion of love as is generally supposed. He says, "Disappointed love and unsuccessful love are often said to occasion insanity; but this is an effect which I believe to be a much rarer event than what the world at large imagine: not that the pain of disappointed love is not as great as any other cause of grief, but because grief itself seldom terminates in permanent delirium, except there be a considerable degree of nervous predisposition." He then continues to notice the reasons why this passion is supposed to give birth to mental derangement: — "When this disease is about to break out, both the exalted state of the imagination and the increased sensibility of the body dispose to the passion of love; and it frequently happens that the very first symptom by which the disease manifests itself is the person's fancying himself to be violently in love."

The influence of grief is ably handled, among many other writers, by the late Dr. Darwin, in that splendid work his "Zoonomia." Pinel relates a very striking and singular case that occurred during the period of the French revolution, and which fell under his own observation:—"Two young men, conscripts, who had recently joined the army,

were called into action. In the heat of the engagement, one of them was killed by a musket ball at the side of his brother; who, petrified with horror, became motionless at the sight. Some days after, he was sent in a state of complete idiotcy to his father's house. His arrival produced a similar impression upon a third son of the same family: and the news of the death of one brother, the derangement of the other, and state of the third, produced such consternation and stupor throughout, as might have defied the powers of ancient or modern poetry to give adequate representation of."

The sudden communication of joyful feelings has also been known to produce insanity. The fact is on record of an artisan of Milan, who, having had the good fortune to find an instrument that formerly belonged to Archimedes, went mad in a transport of joy; and Plutarch, in his life of Artaxerxes, relates the case of a soldier, who, having had the high honour of wounding Cyrus in battle, became so overjoyed that he lost his senses. To Pinel also we owe the following remarkable instance: — "In the Committee of Public Safety in the second year of the republic, a project for an enquiry into the merits of a newly invented cannon was proposed, the effect of which would be tremendous. A day was fixed for the experiment; and, the result being satisfactory, Robespierre wrote to the inventor so flattering a letter, that, upon perusing it, he was transfixed motionless

to the spot, and shortly after became idiotic. Joy, therefore, is a powerful stimulus; and as all the stimuli act more strongly in proportion to the quantity of energy and irritability redundant in the constitution; and as sorrow and grief, and what are termed the depressing passions, allow these principles to be accumulated, we see one reason why sudden transitions from extreme grief to extreme joy are at all times so dangerous to the health of the mind.

It has, however, been observed, that the passion of joy is more likely to occasion mental derangement than grief*; because the former cannot, like the latter, find relief in tears, they being the natural vent for the cerebral excitement and congestion. If intense grief does not find this natural outlet for increased cerebral action, derangement of mind, with a propensity to suicide, is the frequent consequence.

Few events operate more powerfully on the youthful mind than a first separation from friends and country. Almost all who have left their homes, to engage in the business of life, have felt, at times, the desolation of their lot. Attachment unsatisfied

* Sanctorius states that the effect of joy arises from an increase of perspiration, which he supposes to force out some of the nervous juices, and thereby to occasion a loss of thought. Parsons, in his physiology, supposes the effect of this passion to be owing to the blood being propelled from the heart to the extremities. Haller suspects a kind of apoplexy to take place. No two medical writers agree on this subject.

is a feeling that makes a wilderness of the crowded city, and infuses a sense of abandonment and loneliness into the mind, even in the midst of gaiety and parade.*

* We have a remarkable illustration of this fact in those who die of *nostalgia*, or what is called the Swiss *malady*. This affection is said to be peculiar to the inhabitants of Switzerland (at any rate, through circumstances, it has not been so much observed in others). It is occasioned by a desire of revisiting their native country, and of again witnessing the scenes of their youth. The disease commences with melancholy and sadness; love of solitude, accompanied by bodily weakness; pining for their long-left homes, notwithstanding the great privations they frequently undergo there. We have this feeling beautifully depicted by Goldsmith, where he says, —

"Dear is that shade to which his soul conforms,
And dear that hill which lifts him to the storms;
And as a child, when scaring sounds molest,
Clings close and closer to the mother's breast,
So the loud torrent, and the whirlwind's roar,
But bind him to his native mountains more."

We may further instance, as a similar affection, the disease which occurs occasionally among sailors, known by the name of the calenture, in which the sufferer is so impressed with the belief that he sees, around the ship, fields and trees, and the habitations of of men, that he sometimes even leaps overboard in order to reach them. This is the singular malady which forms the subject of the beautiful lines in Wordsworth's poem "The Brothers:"—

——— "He in his heart
Was half a shepherd on the stormy seas.
Oft in the piping shrouds had Leonard heard
The tones of waterfalls, and inland sounds
Of caves and trees: and when the regular wind
Between the tropics fill'd the steady sail,

Unrequited affection is borne with difficulty by either sex; and as the feeling of attachment is generally stronger in the female than the male, whilst she is at the same time restrained by the usages of society from seeking to gratify it, it is not surprising that women should be the most common victims of unsatisfied, of lacerated, and perhaps of outraged attachment. The cerebral derangement that ensues upon disturbance of the faculty of attachment often stops short of actual insanity, but many anomalous, hysterical, nervous, and hypochondriacal affections, as they are called, are consequences of this state.

Anger was long ago characterised as a brief insanity; and there are many instances recorded in which undue activity of the cerebral parts, upon which the phenomenon of anger depends, has led

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And blew with the same breath through days and weeks,
Length'ning invisibly its weary line
Along the cloudless main, he, in those hours
Of tiresome indolence, would often hang
Over the vessel's side, and gaze, and gaze.
And while the broad green wave and sparkling foam
Flash'd round him, images and hues which wrought
In union with the employment of his heart,
He thus, by feverish passion overcome,
Even with the organs of his bodily eye
Below him, in the bosom of the deep,
Saw mountains, saw the forms of sheep that grazed
On verdant hills, with dwellings among trees,
And shepherds clad in the same country grey
Which he himself had worn."

to insanity of the most deplorable kind; for then the unhappy sufferer himself is not always the only victim. Irascibility of temper, and uncontrolled bursts of passion, are dangerous to be indulged in at all times, and are very common proximate causes of insanity, let the disease originate from what other and remoter cause it may.

Anger possesses evidently immense influence over the functions of organic life: the heart and arteries throb violently, digestion no longer goes on, secretion generally is suspended, and the bile sometimes absorbed back into the system, producing jaundice. Can we be surprised that an organ whose over-excitement re-acts with such power upon the system at large should itself be liable to become deranged, or that it should disorder the cerebral parts with which it is so much more intimately connected? Those, therefore, who may suspect that they have any hereditary tendency to functional derangement should be upon their guard against explosions of anger.

We have mentioned a disposition to destroy as one of the prevalent symptoms of insanity; and even as man in his healthy state employs his mind in overcoming natural obstacles, in rooting out that which is valueless, in order to plant that which is of importance and worth, and in taking away life that he himself may live, so is man labouring under functional disease sometimes seen employing this

power in senselessly destroying that which is useful, against the powerful instinct of self-preservation attempting his own life, and, at utter variance with all his former conduct, and on the most trivial occasions, raising his hand against those who are nearest and dearest to him.

Excessive activity of the organs whose manifestations are ordinarily known under the names of pride, ambition, and self-esteem, are commonly exciting causes of derangement : the latter sentiment has many victims, especially among men ; for it is this which makes so many complain of the neglect and ingratitude of the world, and converts individuals, in other respects fitted to ornament a more limited circle than the world at large, into misanthropes and hermits, and finally occasions their conduct to appear so strange as to require the interference of others. If self-esteem, in a state of over-excitement, be a common cause of cerebral derangement, love of *éclat*, and the pursuit of wealth, which in this country especially is so constantly combined with it, are still more frequent causes of this unfortunate result. As observers of mankind, and possessing the confidence of families, medical men are too well aware of the immense number of such cases occurring among the mercantile community that can be traced to over-activity of the organs of love of self-esteem and acquisitiveness.

On the same principle how frequently it is found

that those whose minds have been educated at the expense of their bodies, who have moved in the artificial atmosphere of fashionable life, whose passions have been pandered to at the expense of their constitutions, are more liable to, and often suffer in consequence from, mental aberration. Dr. James Johnson, in his able work, has justly observed, that, "in this country, where man's relations with the world around are multiplied beyond all in any other country, in consequence of the intensity of interest attached to politics, religion, amusement, literature, and the arts; where the temporal concerns of an immense proportion of the population are in a state of perpetual vacillation; where spiritual affairs excite, in the minds of many, great anxiety; and where speculative risks are daily involving in difficulties all classes of society, the operation of physical causes dwindle into complete insignificance when compared with that of anxiety and perturbation of mind."

Dr. Combe has drawn an admirable picture of the influence of these feelings in producing derangement, which I cannot resist the temptation of quoting. He says, "Sudden changes of fortune, whether good or bad, are known to excite cerebral disease and insanity, by stimulating too powerfully some of the mental organs, particularly self-esteem and acquisitiveness. It has been remarked, that of the men who suddenly acquired wealth and rank, many were unable to with-

stand the excitement thereby given to the above faculties, and consequently became insane. It is, in fact, the gradual conversion of healthy action into diseased activity that explains the change so frequently observed in the mind both of the gamester and the mercantile speculator, long before absolute insanity occurs: in the outset, before organisation has suffered, all the powers of the mind are healthy, efficient, and under control, and a certain degree of prudence, foresight, and arrangement is manifest in every venture. After a time, however, whether of success or mishap, the organs of acquisitiveness, self-esteem, &c. from excessive stimulation become permanently and uncontrollably excited, and assume the mastery. The suggestions of the other faculties become proportionally feeble, and are not listened to; the shortest and most dangerous road to the point desired is alone looked at; and speculations are entered on with a rashness and defiance of sense and obstacles that astonish those who are unacquainted with the cause, and which in the beginning of his career would have astonished the individual himself. Either chance is his friend, and every thing prospers, or blow follows blow, till he is bent to the earth: in the former case his ill-regulated mind cannot bear the elevation of prosperity; and, in the latter, his misfortunes strike too hardly upon his already over-active faculties: these give rise to despair, and he sinks, without proper remedies are

applied, into hopeless melancholy, or perhaps commits suicide. The mercantile annals of England are full of such examples; and every change in her fortunes, whether to prosperity or adversity, sends its devoted and unhappy victims, from one or other of these causes, into a state of mental disease." *

Intensity of false conceptions in the religious sentiments is another very frequent exciting cause: many have been seriously injured, and some utterly and irremediably deranged, by terrific representations of the miseries of final perdition. The obdurate sinner may require powerful and proper representations to bring him to a sense of his danger, but the weak and timid have need rather of encouragement and consolation. No medical man can practise long in England in this branch of the profession without meeting with individuals, generally of an amiable and noble cast of character, whose derangement is clearly traceable to over-excitement of mistaken religious sentiments. Let us not be understood as intending to derogate from the importance and sacredness of religion; —it is against its perversion that these remarks are directed.

——— "True religion
Is always mild, propitious, and humble;
Plays not the tyrant." MILLER.

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* On Mental Derangement, p. 177.

"The piety," says Dr. Spurzheim, "that is confiding and affectionate is a great blessing to the individual; but devotion overstrained, religious scruples carried the length of terror, and fanaticism that only conceives an avenging and terrible God, ever ready to furnish with an eternity of torments, are frequent causes of insanity." * The forms which superstition assumes depend on the other disordered manifestations with which the principal feature in the malady happens to be combined. It is difficult to regard in any other light than as an exhibition of insanity many of the sacrificial observances practised by mankind in different countries. Whether the individual makes a victim of another or himself, we have evidence of such a degree of destructiveness in the sacrifice offered to his Deity as is hardly compatible with mental sanity. When remorse and a dread of futurity intermingle, we may be certain that the sentiments of conscientiousness and cautiousness are in a state of over-activity, and require our particular care.

We are conscious now of treading upon delicate ground; but the subject is much too important to be allowed to escape attention. Our holy Christian religion, like the temporal blessings bestowed upon us, is frequently perverted; and it is only when such is the case that it can be considered as leading to mental derangement.

* De la Folie, p. 108.

Many utopian philosophers of the present day are apt to imagine that religion has been productive of more injury to the world than good; and who thereby infer that if it were possible to divest the mind of all religious anxieties at once, as well as of a belief in the divine precepts of the Gospel, they would be gainers by the change. To individuals imbued with such a foolish and dangerous notion, we would direct attention to the following picture of the condition of France during the revolutionary period: —

"The changes which have taken place," says Esquirol, "during the last thirty years, in our moral sentiments and habits, have produced more instances of insanity in France than all our political calamities. We have exchanged our ancient customs and fixed habits, our old and established sentiments and opinions, for speculative theories and dangerous innovations. Religion now is only brought forward as a formal usage in the solemn transactions of life; it no longer affords its soothing consolations to the afflicted, or hope to the desponding. Morality founded on religion is no longer the guide of reason in the narrow and difficult path of life. A cold egotism has dried up all the sources of sentiment; there no longer exists domestic affections, respect, attachment, authority, or reciprocal dependencies; every one lives for himself; none are anxious to form those wise and salutary provisions which ought to

connect the present age with those which are destined to follow it."

That superstitious excitement may unhinge the mind, is too self-evident to admit of being seriously disputed; but mental disease does not originate generally so much from this cause as is supposed. In females of constitutional delicacy and of great nervous susceptibility, and in those who evince a strong predisposition to insanity, there can be no question but that powerful emotions produced by intensely darkened pictures of futurity, and vehement preaching, very frequently act as exciting causes of the disease. There are numerous cases on record establishing this fact, and it is also corroborated by our own observation.

"In the kingdom of Naples," says M. Berthollet, "there exists a custom of preaching in favour of missions, by a particular set of priests. In order to animate the faith of believers, they accompany their orations with peculiar acts, which are often of such a nature as to produce too powerful an effect on weak minds. They hold their hands over flaming torches, and whip themselves with scourges garnished with iron points. Their sermons are prolonged to the close of day; and the feeble glare of a few flambeaux heightens the effect of the scene." One of these sermons gave rise to the case of mania which M. Berthollet relates in his Memoir. "The subject was hell: to heighten the colouring of the frightful picture

which the preacher had traced, he took a skull in his hand, and, having raised a question as to the abode of the soul to which it belonged, he exclaimed, invoking it, — 'If thou art in heaven, intercede for us; if thou art in hell, utter curses.' He then cast the skull from him with violence." The lady whose case M. Berthollet subsequently describes was soon violently affected. Nor need this excite any surprise in our minds. The strongest-minded individual would not be safe, exposed to such revolting fanaticism as this, which is far removed from religious feeling; and derangement of the mind ensuing through such perverted effects cannot, with any show of justice, be attributed to the operation of the divine influence of Christian precepts.

The very erroneous notion is entertained by many on witnessing a person mentally afflicted from superstitious delusions, that religion is the exciting cause: but this conclusion is by no means warranted, for, as Dr. Burrows justly states, "a person may imbibe a religious as well as any other hallucination, and yet be deranged from another cause." In the one case, however, it is a cause, and in the other an effect. On this point we cannot place any reliance on the records kept in establishments; for to obtain a knowledge of the previous history of patients is always attended with difficulty; and therefore we should not be justified in concluding that patients thus afflicted

have become so from religious excitement. In the early period of French history, Pinel has ascertained that no less than 25 out of 113 cases of insanity arose from religious enthusiasm carried to excess: but Esquirol, whose statement carries with it great weight, observes, that religious fanaticism, which formerly occasioned so much insanity in France, has almost ceased to have any influence. In more than 600 cases in La Salpétrière, he discovered only eight; and in 337 cases admitted into his private establishment, he recognises only *one* such case. In referring to Mr. Tuke's account of the Retreat at York, we find the following observations on the influence of religious excitement: — "Very few of the cases admitted into the Retreat have been, at their commencement, connected with religious impressions; and in most of the cases which have occurred, inquiry has proved that the unhappy religious notions have not been excited by any external means, but have arisen spontaneously in the mind, and have been either preceded or attended by symptoms of approaching insanity."

Mr. Madden, an intelligent surgeon, who visited the Levant some years ago, has gone rather too far in his notions on this subject, when he states "the great cause in all countries, except Mahometan ones, of insanity is fanaticism *; and one

* Travels in the Levant, vol. i. p. 315.

would think, *à priori*, that where religious zeal is so strong as it is in Turkey, insanity would be most frequent. The reverse, however, is the fact. The reason is, that their fanaticism is founded on essential doctrines of faith, which neither admit of doubt nor disputation. They all believe themselves certain of salvation sooner or later; and this reflection soothes every moral anxiety. But with us, this overwrought feeling originates from a different cause; and insanity, in consequence, is sometimes the result. The Report of the Cork establishment, published a few years ago in the Edinburgh Review, proved that the disease prevailed only in those districts where the Ranters were most numerous. A physician in Paris assured us that, since the former revolution, the greater number of lunatics were females, in the proportion of two to one; and the reason he assigned was this: — "Since the revolution, the churches are only frequented by women; for one man that you see in a church at Paris, you may count a dozen women. Thus the clergy, to preserve any power over their flock, are obliged to practise on the enthusiasm of the women, and, not content with making them religious, they render them devotees."

This may have been the case at Paris some years ago; but when we were resident in that city, we had frequent opportunities of visiting the celebrated places for the reception of the mentally afflicted, and of conversing with physicians who

made this disease their exclusive study, and they have always led us to believe, that not five cases out of a hundred owed their origin solely to religious excitement.

The physicians connected with the Bicêtre and La Salpétrière endeavour as much as possible to ascertain the previous history of every patient admitted into the private as well as public establishments; and it is a rare occurrence to trace the disease to religion as a cause. We saw many cases in which the patient laboured under apparent religious delusions; but there was no evidence that their affliction was produced by religious excitement of mind. As we entered the ward of the Bicêtre, a fine handsome man, with a remarkably expressive countenance and dignified air, fixed a pair of piercing eyes upon us, and exclaimed, — "Fall down and worship me; I am Jesus Christ — I am the true Saviour of the world." Here was a delusion connected with religion; but we understood that the immediate cause of this man's derangement was a violent and long-continued attack of brain fever, which left him labouring under the peculiar delusion of fancying himself our Saviour. Superficial observers would have attributed this person's insanity to religion.

Another instance that we met with elsewhere was that of a most lively and interesting French girl, whose disease consisted in fancying herself the object

of divine vengeance. There was nothing violent or revolting about this case; the girl was quiet and melancholy. As we were conversing with her on the point of her religious impressions, she turned her head away from us, as if to suppress some internal commotion; and then looking up with a very melancholy expression of countenance, repeated the following couplet in her native tongue: —

> "Like a tired child I could lie down,
> And weep away this life of care."

Her malady, the physician under whose care she was placed informed us, arose through a protracted attack of indigestion; and all her friends protested that religious excitement had nothing whatever to do with its origin. This young lady was remarkable in early life, when quite a child, for a strict performance of her devotional duties; but she had never listened to any violent preaching, and had had no intercourse with fanatics. She was seized with an affection of the digestive functions; and her delusions did not manifest themselves for some time afterwards, and not till the stomach possessed sufficient influence to re-act upon the functional organ of the brain.

We have thus seen that numerous cases of mental delusion have been falsely ascribed to the influence of religion; for, on the investigation of

all such histories, we have invariably found that the reasoning which has led to the adoption of that opinion is both erroneous and illogical.

On investigating the operation of the passions, we find that they act on the arterial, hepatic, vascular, and nervous systems. In fact, when we come closely to examine the internal relationship subsisting between the vascular and nervous systems, and the dependence of the different organs on the condition of the latter, we need not feel surprised at the structural and functional derangements consequent on agitation of mind.*

It would be easy, were it necessary, for me to go through the catalogue of mental manifestations, and show, that insanity is directly caused by the over-excitement of the cerebral organs, or, on the contrary, by their exhaustion, and deficiency in tone.† A healthful state of mind is the result of its several affections being presented in due equili-

* Avenbrugger gives some excellent practical illustrations of organic lesions arising through these influences, more particularly in the Swiss malady, and as he had extensive opportunities of investigating this matter, we should consider his authority perfect.

† A point to be understood throughout; as it is frequently the case, when one or two organs of the mind assume an overactivity, the rest lose a certain active power, and become comparatively dormant. Passive insanity partakes much of this character; consequently, in the curative treatment of insanity, it requires nice skill and judgment to direct the attention positively and negatively, perhaps at the same period, to organs adjoining.

brium; a view which Pope has expressed in the following inimitable lines: —

"Love, hope, and joy, fair Pleasure's smiling train,
Hate, fear, and grief, the family of Pain,
These mixed with art, and to due bounds confined,
Make and maintain the balance of the mind—
The lights and shades, where well accorded strife
Gives all the strength and colour of our life."

CHAPTER VI.

FORMS OF INSANITY. — ITS DURATION, AND EFFECTS ON MORTALITY.

It seldom happens that mental derangement shows itself suddenly. The catastrophe is almost invariably preceded by a series of changes in the character, habits, and actions of the individual about to be affected, as well as by an evident deterioration of the general health, which, when there is latent predisposition, especially deserves the most serious attention on the part of the physician and friends. The person threatened with an attack of functional derangement of the brain generally complains of headache, or a sense of tightness and confusion in the head, of sleeplessness, and, in case he doses for a moment, of being awakened by some frightful or distressing dream or impression. He is frequently conscious of a change in his intellectual capacities, feeling himself, when he attempts to fix his mind upon any particular topic, sometimes expressing astonishment at what has befallen him, or otherwise showing great anxiety to conceal this state of perturbation from those about him; in which case he applies, or attempts to apply himself, more sedulously than usual to whatever he may

have in hand, but without making any progress. The temper and disposition undergo still more obvious changes; the simplest opposition causes an explosion of passion, and angry answers are returned to the most simple and pertinent questions. There is something odd and unusual about the whole bearing of the individual; the peculiarities of his natural disposition become greatly exaggerated, or his character is entirely changed: the fond parent can no longer bear his children out of his sight; when not with him, he imagines evil in a thousand shapes is about to befall them: the individual who was perhaps but little more than simply attentive to the courtesies of life and the opinions of the world, becomes scrupulous to the last degree in performing all the punctilios of society, and anxious in his consideration of what the world will say: he who claimed but the respect which is accorded to others in his own rank of life, begins to exact unusual deference from his family and servants, assumes the carriage and gives his orders in the tone of one who possesses the most absolute authority: he who was merely cautious in his dealings with mankind, and reserved to strangers, becomes unnaturally shy and timid, suspicious of every one, perhaps most so of those whom he would formerly have treated with the utmost confidence; he seems to live in a state of doubt and apprehension, imagining every one he meets to be plotting and conspiring against him:

he who was formerly no more than just, becomes profuse, and gives to all with reckless extravagance: he who was rationally pious, and duly and regularly attentive to his religious duties, yields himself up in an inordinate degree to the exercises of devotion, to the neglect of many other important duties; perhaps from having an encouraging faith in the promises of Revelation, he is beset with scruples about his sincerity, and with unreasonable fears for his eternal safety. Or, on the other hand, the feelings are often strangely perverted: those who were previously valued and loved, are viewed with aversion; domestic ties are disregarded; the decencies of life neglected, and the moral sense apparently quite lost. Whilst these moral revolutions are going on, the general health invariably suffers in a greater or less degree; the patient becomes emaciated, his features shrunk, his skin hot and dry, aud his appetite partial. He exhibits all the symptoms of dyspepsia; the bowels are constipated, the pulse generally quick, and the strength is exhausted for want of sleep; and an undefined restlessness of body and mind is experienced. This state of *incubation*, as it has been called, may last for very different periods in different cases; indeed the ignorance of the public at large, and even of medical men generally, in regard to the features and proper character of insanity, causes it frequently to be overlooked, or fatally mistaken.

In cases where the patient has experienced beneficial treatment, the progress of the malady is checked; and though he may have long continued an object of anxious solicitude to his friends, and sometimes of misery and aversion to himself, he begins to exhibit the effects of appropriate remedies. The symptoms of general bodily disturbance subside, the appetite returns, the cerebral functions resume their integrity, and the patient and his family rejoice in his rescue from confirmed insanity.

It is easy to conceive that it is often a difficult task to fix the precise date of the commencement of functional derangement of the brain; for it is obvious that the accidental circumstance which occasions the final explosion is often the mere spark which ignites the train that had already long been laid in the system. This incipient state very commonly lasts for weeks, it has often been distinctly traced through months, and now and then through a period even of several years. It is more especially liable to happen in that form of partial functional derangement of the brain which is characterised by medical writers as *melancholia;* and this leads us naturally to say a few words on the forms assumed by functional derangement of the brain and its parts. Upon this topic we shall be very brief; for we perfectly concur with those writers who acknowledge that insanity, in any one case, may assume successively and alternately all the forms that have

been described by authors as particular diseases. "Monomania, mania, dementia, &c.," says Esquirol, "alternate with and replace each other in the course of the same disease in the same individual."*

Idiotcy, by common consent, has been separated from all the other forms of mental aberration; and that we concide in the propriety of this arrangement, will evidently appear through the former statement in these pages, as well as from the definition we have given of the state of idiotcy in the outset of this essay.

Dementia.

The states included under this title do not essentially differ from certain species of idiotcy. Young persons, from blows on the head, exposure to terror, and other overpowering emotions, from severe attacks of febrile and other acute diseases, sometimes from the improper indulgence in certain propensities, and occasionally from sheer exhaustion of the cerebral organs in consequence of over-application, fall into a fatuous and idiotic state — of all others the most distressing and the most hopeless. Repeated attacks of hysteria, long endurance of certain anomalous forms of cerebral affection characterised as nervous, and severe and frequent epileptic fits, occasionally lead in later years to the same deplorable result. The kind of fatuity thus induced is like congenital idiotcy; occasionally indeed cer-

* Dict. des Sc. Méd., art. Folie.

tain incomplete manifestations being entirely suppressed, whilst others remain in a greater or less degree of vigour. Incomplete dementia is, however, but rarely to be met with, as the aggregate organs of the mind generally suffer simultaneously. The complete, is a more frequent consequence and termination of mental derangement. Even when patients do exist for a number of years, and the disease, as it does in some instances, bears lightly upon the main springs of organic life, they almost invariably fall into a state of fatuity, in which they seem to have no more consciousness of their existence, and no more enjoyment in it, than a vegetable.

The mere progress of years even leads to a state of intellectual and moral existence that differs but little from the dementia that is the effect of direct disease. The senses are blunted, the propensities and sentiments suppressed, the memory is gone, and the intellect obscured or lost. The machine is then evidently the mere wreck of what it was, and the brain is unfitted, as it was formerly adapted by its Creator, for the manifestation of the godlike powers that were once connected with it; just as the muscles, through age, become shrunk, and hence incapable of those displays of vigour that emanated from them when in the vigour of youth.

How, we are almost forced to exclaim, was it possible that the influence of the organisation should have been so long overlooked in the consideration of

the most interesting class of diseases that now engages our attention!

Dementia, therefore, is no more than a symptom, which may occur at different periods of life, and as a consequence of accidental causes, which are either temporary or permanent. * The suppression of the mental manifestations is the result of the weakness of the brain, or of injury done to its substance; and in the same way as we have seen that the faculties of the mind are not exhibited as the body acquires maturity from infancy to manhood, if the action of the brain be defective, or there be general weakness in the constitution, so may these powers be suppressed at a later period by the disorganisation of the brain, or by general and local weakness.

Monomania.

Monomania and Melancholia have sometimes been used synonymously to designate the state of partial cerebral derangement so often encountered in practice. All that has preceded, however, must, we trust, have made it apparent, that there is no peculiar disease of the entire brain, considered as the organ of the mental manifestations, which can be entitled monomania. Monomania is the functional derangement of any one cerebral organ, the others continuing healthy, or only so far disturbed in their actions as they are swayed by the impressions

* Spurzheim, loc. cit. p. 139.

conveyed from the part more especially affected. He whose sexual appetite becomes over-active, so that it leads the unhappy individual to break through the decencies of life, and to commit all manner of extravagances, is a monomaniac from amativeness: he whose parental feelings are so much disordered that his children become sources of misery to him, is a monomaniac from philoprogenitiveness: he whose mental manifestations become disordered from lacerated attachment, &c. is a monomaniac from over-excited adhesiveness: he who imagines that he possesses an intimate knowledge of all the arts and sciences, that a great nation is unhappy and ill-governed because *he* is not placed at the head of its affairs, whose schemes of aggrandisement reach from pole to pole, is a monomaniac from over-active self-esteem: he who becomes absorbed in notions of his religious obligations inconsistent with the duties of life, and the charities and enjoyments so liberally mingled by a beneficent Creator with our existence, who spends the night and the day in uninterrupted prayer, and goes about among his friends, in season and out of season, admonishing and denouncing them, is or soon will be a monomaniac from over-excitement of the combined sentiments of veneration, hope, and the sense of the supernatural: he, again, who conceives that he has discovered the perpetual motion, and bores the world incessantly upon his discovery, is near, if he be not actually,

a monomaniac from exalted constructiveness; and so on, through the whole list of the primary powers of the mind.

Melancholia.

Melancholia is a title more particularly applied to those cases of partial affective insanity, in which the faculty that leads man to be cautious or circumspect is either primarily over-excited, or is aroused into unwonted action in sympathy with deranged manifestations of various other powers. We have, consequently, such varieties as common melancholy, religious melancholy, love-sick melancholy, suicidal melancholy, hypochondriacal melancholy, &c. described by medical writers as if they were so many separate diseases, like fever, asthma, consumption, gout, &c., instead of the same form of functional derangement of that portion of the brain which presides over the manifestations of cautiousness, either alone and singly, or is associated with morbid actions in those parts that are the organs of the religious sentiments, of attachment, of destructiveness, or that presides over the functions of digestion, biliary secretion, &c.

Mania.

By Mania is generally understood functional derangement of every part of the brain simultaneously: although under this title we occasionally find comprised a particular derangement of the organs of

combativeness and destructiveness, which would make it a variety of monomania. Violence, raving, and incoherence are generally taken as the distinguishing characteristics of mania; and in every exhibition of violence we are perfectly well assured as to several of the cerebral parts which are particularly affected.

Partial and general functional derangement of the brain, or monomania and mania, are constantly observed alternating with one another. Even differently characterised varieties of the partial disease are frequently seen succeeding and giving place to each other mutually. This circumstance occasioned infinite perplexity to the reflecting writers of times gone by, when the physiology of the brain and the nervous system was in its infancy. Now, that we have not only discovered nerves adapted to every variety of function, but also a cerebral fasciculus for every propensity, sentiment, and intellectual faculty with which we know ourselves endowed, we have no difficulty whatever in explaining the phenomenon. "Nothing," says Pinel, "is more inexplicable, yet nothing is more certain, than the two forms which melancholia (monomania) may assume: sometimes it is an explosion of pride, associated with chimerical pretensions to the possession of immense wealth, and power without bounds; at other times it is characterised by the most abject humility, extreme consternation, and utter despair. The patient who at one time is

overwhelmed with apprehensions for his life, compliments himself by and by with the title and prerogatives of the King of France; the individual who becomes insane, assumes at length the name and bearing of the King of Corsica, &c."

We may say that the cerebral fasciculi are singly as well as simultaneously open to disease; and that their functional derangements are liable to a kind of metastasis, or alternation, much in the same way as we see rheumatism affecting now the wrists and elbows, then the knees and ankles; now the right shoulder, then the left; now the nerves and muscles of the spine, then those of the hip and thigh, &c. And this leads us naturally to the consideration of another very interesting phenomenon in the history of mental derangement; namely, —

Intermittence.

Intermittence, or periodicity in the symptoms, is one of the most universal laws which affects organised beings. No action appears to be incessant: all are subject to certain intervals of repose. The heart, that goes on pulsating for seventy or eighty years, has considerably longer periods of repose than of exertion: the muscles, that carry us five, ten, or fifteen miles without enduring extreme fatigue, only do so by a succession of alternate contractions and relaxations: we can move the limbs backwards and forwards for hours, but we cannot hold one of them out in a straight line with the

body for more than a few minutes at a time: the stomach that is incessantly stimulated to digestion soon refuses the office; food must be taken at intervals only, if we would have it continue its functions healthily. Finally, the activity of the nervous system during the day is succeeded by the repose of the night.

Periodicity, in the diseases generally to which we all are subject, is a phenomenon upon which it is unnecessary to insist: even the most violent class of disorders is observed to exhibit periods of remission and of exacerbation; and some are marked by the regularity of their recurrence and remission at definite periods. It is the same with regard to insanity. It rarely happens that this disease runs through its course unmarked by exacerbations and remissions, more or less decided; and, in numerous instances, the paroxysms recur almost with the regularity, and are characterised by the same intervals of intermission, as a tertian ague.

Pinel informs us that, out of 200 maniacs in the Asylum at Bicêtre, there were 52 whose paroxysms recurred and intermitted at irregular intervals, and 6 in whom the periods of accession occurred regularly. Among the latter class, there was one whose paroxysm returned every year, and lasted for three months, ending regularly towards the middle of summer. A second was subject to extreme fury during a fortnight every year, being perfectly calm and in the possession of his reason

for the remaining eleven months and a half. The disease in a third observed the type of a tertian fever; there being one day of complete intermission.*

M. Foville mentions the case of a young woman who was one fortnight "in a state of complete dementia, and another fortnight in the complete possession of her reason." † These complete and regular intermissions are to be carefully distinguished from what are called *lucid intervals*, — which are observed, in various degrees, in almost every case. In these there is no proper suspension of the disease, the symptoms only abate in intensity: the individual does not cease for a moment to be insane, although the interval be protracted for several hours, and sometimes even for several days; there is that in the general air and in the eyes of the patient that tells of the continuance of the derangement, and still forbids us to entertain any hopes of permanent improvement in his or her state.

In the same manner as the greater number of the acute, and even more serious, diseases to which the body at large is liable, manifest a disposition to run through a certain course, the tendency of which is happily towards the restoration of health; so may functional derangement of the brain and its parts be shown to exhibit certain shapes

* On Insanity, English transl., p. 13.

† Dict. de Méd. et Chir. Mal., tom. i. p. 525.

throughout, and, where no adverse circumstance intervenes, may be said to tend naturally to a cure. After a longer or shorter period, the disease breaks out, and the symptoms increase gradually in intensity for some days; after the lapse of a week or a fortnight, they begin to decline in violence, and go on abating for some time; but soon they seem to acquire fresh energy, and the patient is as much, or nearly as much, affected as ever; still the paroxysm lasts for a shorter time, and by and by begins to abate once more. This alternation of increase and subsidence in the symptoms occurs repeatedly, the fits becoming shorter, and less and less severe, and the lucid intervals longer and more complete; until, at length, the disease seems to exhaust itself, and the patients, whether male or female, find themselves in the possession of all their faculties, and as before the attack.

We do not believe, however, whatever be the form it assumes, that any precise period can be assigned as that of the probable duration of an attack of insanity. Nevertheless, those cases that occur under certain circumstances, as from the abuse of intoxicating liquors, during the puerperal state, and even in consequence of unusual vexation and worry of mind, where there was no predisposition, generally get well speedily. We have certainly seen the whole of the symptoms, not only of impending but of actual mania, mitigated by the use of proper means in four and twenty hours;

and it is probable that, were the nature and treatment of insanity better understood, it would be found a disease generally susceptible of being guided to a speedy and favourable issue.

It is gratifying to find that, in proportion as knowledge of the physiology and pathology of the brain and nervous system has extended, the period assigned to effect a cure has gradually lessened. In 1806, Pinel stated from five to six months to be the mean term of the duration of insanity: his estimate must therefore be regarded as having been made from patients under the most favourable circumstances; his data being derived from those cases only which had been under his own care from the beginning. Esquirol, much more recently, and from the whole of the cases promiscuously received into La Salpétrière Hospital during the course of ten years, consequently from data much less favourable, has extended this period considerably. Of the whole number admitted, 640 recovered within the first year, 502 in the second, 86 in the third, and 41 in the next seven years: from whence it would appear that by far the greater number of recoveries take place within the first two years; that the mean term of treatment is somewhat less than a year; and that after the third year the probabilities of cure are greatly diminished, hardly amounting to 1 in 30 of all the cases that remain.

There is a tabular view of the same author, as quoted by Dr. Combe, which shows the stage in

the disorder in which the influence of treatment is clearly perceptible. This table includes 269 cases, of which "27 recovered in the first month, 32 in the second, 18 in the third, 30 in the fourth, 24 in the fifth, 20 in the sixth, 20 in the seventh, 19 in the eighth, 12 in the ninth, 13 in the tenth, 23 after the first and within the second year, and 18 at all periods after two years." That is, 151 recovered during the first six months, and 64 during the next four months; or 215 within the first ten months, and not more than 41 at any subsequent period in the two years.

"Preceding the month of August, 1827," says M. Foville, "91 patients, held capable of receiving benefit by treatment, were admitted into the establishment of the Lower Seine. At the date indicated, 51 had been dismissed cured at the undermentioned periods; viz. 8 in the first month, 12 in the second, 11 in the third, 2 in the fourth, 2 in the fifth, 7 in the sixth, 2 in the eighth, 3 in the ninth, 1 in the eleventh, 1 in the twelfth, 1 in the fifteenth and 1 in the twentieth:" from which it appears that one sixth of the whole recoveries took place in the course of the first month, two fifths in the second, and three fifths, or more than a half, in the third."*

These results are enough of themselves to impress on every mind the *immense importance* of recourse to early and efficient treatment in the cure of insanity.

* Dict. cit., p. 529.

It is unquestionable that by far the larger proportion of recoveries in these relative statements occurred among the recent cases: the moieties of the whole numbers treated that remain as incurable were, in all likelihood, in this predicament before those means which are the best calculated to bring the disease to a happy issue were enforced. Broussais, the chief of what is called the physiological school in France, positively affirms that he and his disciples can cite numerous cases "in which topical blood-letting, by means of leeches applied during several consecutive days, have cut short incipient mania, and restored the patient to reason as quickly as we are accustomed to see pneumonia and gastro-enteritis removed by blood-letting." *

By far the greatest number of recoveries, then, take place within the first six and twelve months; though innumerable instances are on record (many have fallen under our own observation) in which recoveries occurred after much longer periods — after five, ten, fifteen, and even twenty years. So long as no symptoms of organic lesion of the brain appear, we may still flatter ourselves with the hope of accomplishing a cure, and continue sedulously

* De la Folie, quoted by Dr. Combe, op. cit. p. 272.

There is very little doubt of the benefit of this practice in some instances, though we take it comparatively at the commencement. Every practitioner possessing much knowledge of the features of this disease is free to admit the prejudicial influence of bleeding in a general way.

to use every means calculated to bring about this very desirable consummation.

The mortality in insanity has varied greatly at different times; that is to say, according to the circumstances in which the insane have been placed in regard to lodging, food, clothing, &c. Previous to the French revolution, the whole allowance to the insane was one pound of bread per diem; and the patients were generally lodged wretchedly in places worse than pigsties, and the mortality then appears to have been very great.

Pinel reckoned it, at the beginning of the present century, at 1 in 20 or 23. Esquirol believes it to be considerably greater, amounting, in some forms of the disease — namely, in dementia, or the fatuous state in which incurable insanity so commonly ends, — to as many as 1 in 3. In mania, however, he is led to conclude that it is not higher than about 1 in 25; whilst in monomania it appears to be about 1 in 16. The average mortality, in cases of every description, is, consequently, 1 in 15. M. Foville, writing in 1829, states the average mortality at the establishment of the Lower Seine at 1 in 12 of the whole inmates, and at 1 in 23 of the recent cases. From a total view of 2445 cases admitted into Bethlehem Hospital between the years 1819 and 1833 *, it appears that the number of deaths amount to 99, which

* Liberally furnished by Mr. Lawrence, and published by Dr. Prichard, in his able "Treatise on Insanity," p. 141.

nearly gives an average on the whole of 1 in 24½. As the cases admitted into this asylum are mostly what may be called recent, and, if not cured within a year, are dismissed, this must be held as the rate of mortality in cases of mania and monomania. The mortality in several of the avowedly best conducted establishments in England is very much higher than, from the preceding reports, it appears to be in France; a fact for which we feel at a loss to account. Thus, of 128 cases received into the Retreat at York, 63 of which were of less than three months' standing, and 65 of less than twelve, the deaths amounted to 17, affording the average of about 1 in 7; whilst, of all the cases indiscriminately received into the institution, the above included, and 334 in number, 50 died, which gives nearly the same high average mortality.*

From these considerations, therefore, it would appear necessary to modify our views in regard to the influence of insanity upon longevity: the disease which, under any circumstances, reckons 1 victim in 3, or 1 in 7, or even 1 in 16, can never be viewed as among the number of those which have no tendency to shorten life; a too common persuasion, and one which has its weight in inducing families, in innumerable instances, to delay having recourse to efficient medical assistance

* For a table of the average mortality in England, the reader is referred to Dr. Prichard's work on Insanity, p. 143.

at a period when it really is of the first importance.

Some of the insane, indeed, live to a great age; but these are, undoubtedly, the exception. The majority of the insane die before the average number of years has elapsed which, at their respective ages, individuals in a good state of health are known to attain. The mortality is very much greater in the first and second years of the disease than at any subsequent period: of 790 deaths which occurred in the Salpétrière between 1804 and 1814, 382 happened in the course of the first year from the admission of the patients; 227 in the course of the second year; and 181 during the seven succeeding years.*

Death, in the earlier periods of insanity, that is, within the first year, very commonly happens from mischief done to the system of organic life — the heart, the lungs, the stomach, intestinal canal, &c.; by the state of ceaseless excitement in which they, and the whole machine, are kept by the over or perverted activity of the brain. The fever induced by mere over-exertion of the muscular system is frequently followed by deranged nutrition, and a sinking of the general powers, from which the youthful often suffer severely; and the very same thing happens from unremitting excitement of the organs of the mental functions, whether only one or several of them be affected.

* Esquirol.

The patients who die insane have always lost flesh, often to a great extent; their tongues are brown and parched; their teeth and lips encrusted with sordes; their pulse is quick; their eyes are glassy; their skin dry; their bowels constipated, &c.

The insane, however, that get over the first or more acute periods of their malady without recovering their reason, to use a familiar expression, do not always die directly of the cerebral disease. This, indeed, is liable to go on from simple functional derangement to disorganisation; when paralysis of the most hopeless kind supervenes, and is rarely long in proving fatal. Apoplexy is also known to occur more commonly among the insane than among people in health. Diseases of the lungs and intestinal canal are also extremely prevalent among incurables, and often prove the immediate cause of death. The insane are, besides, liable to all the accidental diseases to which the human body, unaffected with functional derangement of the organs of the affective and intellectual faculties, is obnoxious; many succumb to fevers of a typhoid character, to acute pulmonic or more chronic catarrhal affections.

CHAPTER VII.

MORBID ANATOMY OF THE BRAIN IN INSANITY.

One of the most interesting anecdotes of antiquity to the anatomist and physician, is that of the visit paid by the Father of physic to Democritus, who was presumed by his townsmen to be mad. Hippocrates found the philosopher engaged in searching for the cause of the very malady under which he was himself supposed to be labouring. The bodies of a number of animals, which he had been dissecting, lay before him: these he examined from time to time; then he wrote in his tablets; then he was observed in meditation; again he looked into the bodies, and again he committed his thoughts to writing.

The intellectual faculties, at least, have been so uniformly believed to be dependent on the brain, that it is wonderful the direction thus early given by the Greek philosopher should have been so long lost sight of in studying the derangements which their manifestations exhibit. Pathological anatomy, however, as far as relates to organs whose structure and functions are best known, is a science of very modern creation; and, in regard to the brain and

nervous system, the structure and functions of which have only been successfully investigated in our day, may fairly be said to be still in its infancy. The illustrious Pinel, whose powers of general observation and candour no one will call in question, was induced to conclude that no light whatever was to be thrown upon the subject of insanity by examining the state of the brain in those who had died whilst labouring under this disease.

His follower, Esquirol, adopted the opinions of his master upon this point in the beginning of his career, from data however which, to the unbiassed mind, would never have admitted of such an inference; for, of rather more than 400 cases in which morbid alterations were conspicuous, these occurred in 263 in the brain and investing membranes, in 46 in the lungs, and in 113 in the abdominal viscera.

More recently, M. Esquirol has seen reason to change his opinion: for he admits that, "probably from the greater care with which the brain is now dissected, very few bodies of lunatics are now examined in which there are not proved to exist at the same time injections or adhesions of the meninges, softenings and tubercles in the brain, serous effusions into the cavities, &c.;" although, from analogous alterations having been met with in the bodies of those who had died unaffected with insanity, he would have us conclude that they had no necessary connection with this disease.

"May we not, however," says M. Foville, "venture to inquire, whether the alterations now admitted to occur in the brain of the majority of those who have died insane have been adequately studied, or not? whether all the care requisite in conducting researches of such delicacy was bestowed before such a conclusion was come to, as that morbid anatomy proved nothing in regard to the organic nature of insanity? Undoubtedly not: even the men who are most deeply versed in the subject of pathological anatomy generally, and whose labours have contributed to the advancement of this interesting branch of natural science, are but too often incomprehensibly negligent in their inquiries into the lesions of the brain. We have seen the pathological state of the brain investigated with the rudest and most clumsy instruments: a fork, for instance, thrust through the membranes, and the substance of the encephalon removed at a sweep to the level of the ventricles; and, these being ascertained to contain a considerable quantity of serum, or not, the examination concludes; unless, perchance, the operator held it farther advisable to make a few more gashes into the substance of the brain. Unquestionably, so long as inquiries of this nature are thus conducted, they who conclude that little or nothing is to be learned from them will be borne out by the fact. Is not as much attention requisite to appreciate the morbid condition of any organ, as to discover its normal structure and appearances?

and is it not a truth, that anatomists are not yet agreed as to the true structure of the brain? that some, even of the highest merit, have denied its fibrous structure,—although all who have taken the pains to interrogate nature aright, from the time of Galen downwards, have positively recognised this peculiarity of texture? How, then, anticipate any thing like agreement as to the morbid states of a most delicate organ, from men who were notoriously at variance in regard to its healthy structure and physical conditions generally?" *

This in itself is so interesting a subject, and one so fraught with importance in its bearings on our general pathological views and treatment of insanity, that we shall enter into its consideration somewhat at length, yet with every possible attention to brevity in the details.

In investigating the morbid anatomy of the brain in insanity, we are never to lose sight of the fact, that it is, in most instances, no more than a functional malady; that is, a disease in which the symptoms arise from a change in the *mode of action* of the organs, depending upon an alteration in the state of their vessels or general constitution so slight as to be almost or altogether imperceptible after death. Individuals who have long laboured under functional derangement of the organs of circulation and digestion have been found after death, from disease

* Op. cit. 533.

of another kind, to be unaffected with any evident organic derangement of the heart or stomach. Unquestionably, some alteration of a very transient and slight description occurred in these organs during life: their functions were impaired; and long-continued functional derangement is certainly productive of organic change, which supervenes, sooner or later, in every case, unless prevented occurring at all by that sovereign interferer with healthy as well as morbid actions — death. Functional disease of the brain evidently continues for a great length of time in some cases, without degenerating into, or inducing, organic disease: patients recover who have been insane for many years: many, too, who become affected with acute inflammatory and febrile diseases, regain the use of their mental faculties within a short period of their death; a fact which vouches for the disease of their brain having been functional only.

That there are vascular and organic, though unappreciable, lesions, even in the simplest and most recent cases, is apparent from the sensible alteration in the temperature of the integuments over the regions principally affected. It is absurd to expect assurance of the existence of organic lesion in so delicate a structure as the encephalon from any change short of absolute disorganisation, the presence of a tumour, the deposition of a mass of coagulable lymph, or the effusion of fluid over the membranes or into the ventricles.

Dr. Spurzheim, writing in 1818, says, "I am satisfied that sundry changes in colour and texture may always be detected in the brain of those who have died insane, by any one who will bestow the degree of attention requisite in researches of this description. In fever, accompanied with delirium; in insanity, attended with great excitement of the faculties; in those precocious children, who have suffered in their intellectual powers in consequence of what are called *cerebral fevers;* and in patients generally who have sunk into a state of fatuity, I have invariably found traces of organic alteration in the substance of the brain itself, in its blood-vessels, in its membranes, or in the bones of the cranium."*

M. Bayle so uniformly found traces of organic defect in the membranes of the brain, that he was led to adopt an opinion of the proximate cause of the disease being seated, not in the brain itself, but in its meninges.†

M. Calmeil‡, in his researches into the morbid anatomy of the brain, in cases of paralysis connected with insanity, always found the bones of the cranium in a highly vascular state; growths, springing from the pia mater, with absorption of corresponding points of the inner table of the skull; effusions of

* De la Folie, p. 139.

† This view is maintained in his work, entitled "Traité des Maladies Mentales."

‡ De la Paralysie considérée chez les Aliénés. Paris, 1826.

serum into the tunica arachnoidea, ventricles, and spinal cavity; false membranes between the laminæ of the tunica arachnoidea, encysted concretions and apoplectic cells within the same membrane, or effusions of blood into the lateral ventricles, and a highly vascular state of the membranes, with thickening of the pia mater and arachnoid coat; adhesions of the pia mater, either generally, or locally and in patches, to the cineritious substance of the brain; superficial or deeper softenings, yet without absolute disorganisation of the cineritious substance; erosions and discolorations of the same substance; greater consistence than natural of the white substance, &c.

The result of M. Foville's inquiries are still more interesting, and bear even more strongly on the point under consideration, as having been made on the bodies of those who died solely from the effects of insanity, and also from the brains that were supposed to be in a morbid state having been compared with other brains which were presumed to be normal in their condition. In the more acute cases, M. Foville invariably found the cineritious substance of a very intense red colour, similar to that of the skin affected with erysipelas: this tint was not confined to the superficies of the brain merely, but extended into the cineritious matter, so that the colour of a cut portion often looked redder than that of the natural surface; or it was marbled and variegated with a variety of hues,

from the bright scarlet of arterial blood to the pale purple of the lilac. The cineritious substance was generally softened internally, and apparently increasing in consistency on the superficies; and sanguineous points were frequently observed in the midst of the marblings. In some very violent cases of mania, the cineritious substance of the convolutions was found beset with small extravasations of the size of pins' heads. Its vessels, so delicate in the natural state as to be scarcely perceptible, were frequently found so much enlarged, that when the surface of a convolution was incised their open mouths were every where conspicuous, and of such magnitude as readily to receive a common pin. The vessels, too, were so much increased in density, that instead of yielding to the scalpel, they were apt to be dragged through the softened grey substance upon its edge. In these acute cases, no adhesions of the membranes to the cineritious substance were ever found.

The most uniform alteration of the cineritious substance discovered in chronic cases was a very sensible but superficial hardening of its surface, together with a diminished density, or material softening of the whole of its deeper portions. This made it easy to remove the surface of the convolutions, in the shape of a kind of membrane of uniform thickness, smooth externally, but flocculent internally, and of a paler colour than natural; whilst, as in the acute cases, the tint of the substance underneath was

much darker than in the natural state, and its surface, after the removal of the condensed investing pellicle, was soft, red, and mammillated, so as to bear a considerable resemblance to the outside of a granulating sore. The external condensed portion of the cineritious substance resisted an attempt to remove it by scraping with the scalpel; the deeper portions, on the contrary, came away with the utmost facility, offering no greater resistance than the pulp of any boiled fruit. Whenever the condensation of the cineritious substance was observed, the colour was at the same time found to be paler than natural; so that some parts in this condition, yet allowed to consist of grey matter, became almost perfectly white. The parts that had undergone this change presented a silvery aspect. The surface of the convolutions, too, was sometimes found to have lost the smoothness and polish that properly belong to them.

The convolutions under these circumstances may be found either to have retained their natural dimensions, or to be shrunk in size; in the latter case they are often marked on the outside with a number of irregular depressions, and corresponding to these internally is discovered an infinity of small cavities full of yellowish serum. It seems very probable that these small lacunæ have followed the minute sanguineous effusions, which have been mentioned in connection with the appearances presented in acute cases. The atrophy of the convo-

lutions in other cases occurs principally towards their summits, when they end in an angular or sharp edge, which looks as if it had been produced by pinching them between the finger and thumb; or otherwise the principal loss of substance appears to have taken place longitudinally on their base, when they look pediculated. In every case, the spaces between the convolutions are augmented, and sometimes even exceed them in width themselves: this atrophy in some cases is found to have proceeded to such lengths, that in particular regions no more than faint traces of convolutions remain. The atrophy appears to take place principally, or altogether, at the expense of the cineritious substance, and the little that often remains of this constituent of the brain is always greatly altered: it is mostly harder, and its colour much paler, than in the natural state. Sometimes it is of a clear tawny yellow externally, and of a pale rosy hue within; in which case, when a convolution is cut across, the cineritious substance appears as if it consisted of two parallel membranes of different colours applied to one another.

The indurated cineritious substance, when torn, is found to present the same distinctly fibrous structure it exhibits when the brain has been prepared by boiling in oil, or maceration in alcohol: this atrophy is always a partial affection, and is constantly confined to a few regions of the brain.

Very frequently two or three neighbouring convolutions are reduced to such a degree of tenuity, that they almost seem to have disappeared. The same change commonly occurs in the corresponding convolutions on the opposite side: the others preserve their usual dimensions.

Besides the simple softening of the cineritious substance mentioned above, it is frequently met with entirely diffluent and pappy, so that it adheres to the fingers or sponge applied to absorb the fluid with which it is apparently surcharged: the whole of the cineritious substance becomes in this way affected, and is much browner than natural. This softened state is not by any means general; it is often confined to a comparatively small space, and its extent accurately defined.

The cineritious substance contained within the interior of the brain, as in the thalami, corpora striata, &c., is less frequently affected than that which is cortical or external.

The white substance of the brain is also very commonly found altered in its colour, its density, and its texture. Its vessels, too, are frequently preternaturally injected, especially those of a certain size, so that the surface of a section of this substance appears thickly dotted with sanguineous points; the injection in other cases seems to exist rather in the finest vessels, when, instead of the dotted appearance just mentioned, we have intermingled a remarkable marbling of brighter and deeper, or duskier and

more purple-coloured, streaks, very similar to what we observe in some of the finer kinds of Castile soap. That these marblings are actually produced by the injection of the capillary vessels, is made evident under the magnifying glass. The whole substance, again, is not unfrequently of an unusually brilliant white, mostly conjoined with a degree of induration, the amount of which it is difficult to conceive without having examined a brain thus affected. Sometimes it is so great, that the brain preserves its shape completely after removal from the cranium. Sometimes, again, it is more remarkable for its toughness than its firmness. The kind of resistance experienced when cutting through a brain in this state resembles that which is felt in dividing several layers of skin placed one above another. The white substance thus indurated is always less manifestly fibrous than in the usual state, as if every individual fibre had contracted adhesions with all those in its neighbourhood. This diminished fibrousness of structure, however, is by no means necessarily combined with an increase in its density; a fact which it is of importance to know. The several fibrous planes, by the superposition of which the white substance of each hemisphere appears to be composed, and which in the normal brain are readily separated from one another, can by no means be parted after chronic derangement in the functions of the brain. M. Foville never met with but two cases,

in subjects affected with consecutive paralysis, in which this impossibility of separating the fibrous planes was not encountered.

The brain generally in certain cases is so completely infiltrated with serum, that the state of the organs might be characterised as œdematous; fluid is seen distilling copiously from the surface of every incision made into its substance. There is another rarer but very remarkable alteration, in which the brain when incised displays a multitude of small cavities, capable of admitting a millet or hemp seed, and sometimes even a hazel nut. The fluid contained in these cells is always as limpid as water; and their sides are perfectly smooth and white. A section of the brain thus altered presents the greatest similarity to the cut surface of some kinds of cheese. The nerves that arise from the brain and medulla oblongata are very often greatly altered in their texture and appearance; the optic nerves have been found hard, and as transparent as gelatine in the greater part of their substance.

In certain forms of what may be entitled *accidental* insanity, particularly in those which arise from a debilitating cause, such as the puerperal state, &c., no appearance in the brain is more striking than the extreme and uniform paleness of its cineritious substance. Even in these cases, however, certain marblings of a bright rosy colour are frequently to be observed, although they are so slight as almost to make us hesitate to pronounce them

pathological. As investigation is extended, it is probable that many other morbid changes will be detected in the cerebral nerves generally.

Changes in the membranes of the brain are also so common in those who have died insane, that some, indeed, have even ascribed all the phenomena of the disease to their influence. M. Foville never found the membranes altered without corresponding alteration in the substance of the brain. In acute cases nothing more is generally met with than simple injections of the pia mater, which is in proportion to the inflammation, or simply softened state, of the cineritious substance. The minute vessels which plunge along with the pia mater between the convolutions, being distributed over their surface, are distended with blood, as if they had been prepared by the most successful injection. The veins are at the same time gorged with dark-coloured blood. The arachnoid membrane in these cases usually preserves its natural appearance. The injection, in very violent cases, is found to predominate in the anfractuosities between the convolutions, the convexities of which even appear paler and more exsanguine than usual; an occurrence which seems to be purely mechanical, and to result from the general distension of the brain, especially internally, forcing the peripheries of the convolutions into unwontedly close contact with the inside of the dura mater and bony case.

It is under such circumstances that the brain

appears to be hypertrophied, and projects forcibly through every partial opening made into the dura mater after the skull-cap has been removed. The alterations occurring in the membranes in chronic cases are much more numerous; they consist for the most part in opacity, increase of consistence, thickening of the tunica arachnoidea, the formation of granulations and false membranes upon its surface, and the effusion of serum into the cellular substance of the pia mater, as also into the ventricles.

The membranes thus affected often adhere to the cineritious substance of the brain, especially on the convexities of the convolutions; and the arachnoid then appears opaque, thickened, and of a milky or pearl-grey colour, either almost uniformly or in patches here and there. The free surface of the arachnoid is sometimes found covered with false membranes easy of detachment. The serous surfaces of the ventricles are also occasionally observed to be overspread with granulations of various dimensions, the colour of cartilage, and either thinly scattered or agglomerated in great numbers. In such cases the quantity of effused serum is sometimes very considerable, and is generally limpid and colourless; though occasionally it is yellowish, and in some slight degree gelatinous.

The cranium very generally presents certain appearances in insanity which bespeak a condition other than that which is normal, and natural

to it. Greding, Gall, Spurzheim, and others remarked that it was often thick, heavy, and indurated; at other times thick, but spongy: in a few cases, again, it was unusually thin, and frequently preternaturally loaded with blood. M. Foville's observations are directly confirmatory of the whole of these particulars. Along with alterations in the texture of the bones he has also frequently observed changes in the pericranium and scalp, which are all interesting.*

Dr. A. Combe says, "If we examine the numerous cases in which mental alienation has arisen from a species of morbid action, involving organic changes by its simple continuance, or in which death has proceeded from the mere progress of the malady, we shall generally meet with unequivocal traces of cerebral disease in the various forms of changes of colour, of consistence, or of alterations of structure. Such, at least, are the results at which I have arrived; and they seem to be so accordant with what occurs in other organs as to present no unusual difficulties to the pathologist." †

The same excellent writer quotes the observations of Mr. Davidson, the house-surgeon of the Lancaster County Lunatic Asylum, which contains upwards of 400 patients. Mr. Davidson carefully examined the bodies of more than 200

* Dict. de Méd. et Chir. Pratique, t. i. p. 531. et seq.

† Op. cit. p. 287.

who had died in the hospital since his appointment; and scarcely did he meet with a single instance in which traces of disease in the brain or its membranes were not evident, even when recent, and the patient's death was occasioned by another cause. The pia mater and cortical or cineritious substance were the parts he found most frequently in a morbid state; the former was generally injected, thickened, covered with coagulable lymph, and finally adherent to the cineritious matter beneath, which pealed off with it, leaving a rough unequal surface. Changes of colour and of consistence, with adhesion to the pia mater, were the variations most commonly met with in the cineritious substance, although not so constantly as M. Foville describes them. These alterations were sometimes extensive, and at others partial, occupying a small portion only of the membranes or cerebral surface. Mr. Davidson, generally speaking, found morbid appearances much more rare in the fibrous than in the cortical substance and membranes.*

That obvious and very extensive morbid changes occur in the brain, and parts connected with it, in insanity, seems to be placed beyond the reach of doubt; but that any morbid condition of the brain, peculiar to and characteristic of the disease, has been discovered, is a fact that has been called

* Id. Op. ut supra.

in question. Were the case really so, very obvious reasons for the circumstance would be, that it really is not always the same disease. We admit, however, that there exists morbid condition of the brain characteristic of deranged manifestation of the mental faculties: for, in fact, a highly injected state of the capillaries of the pia mater and vessels of the substance of the brain; those partial softenings without dissolution, and those marblings of the cineritious substance; those evidences of inflammatory action in the deposition of false membranes or coagulating lymph upon the membranes; those adhesions of the membranes to the substance of the convolutions; those effusions of serum; those thickenings and increases of density, or those preternatural thinnings of the cranium, and injections of its substance, — are never to be met with unless accompanied with manifest disturbance in the faculties of the mind (that is, in the functions of the brain) for some considerable time before death.*

* Insanity is not an entity superadded to the organisation, but evidence of derangement in the organisation itself intrusted with the manifestation of the faculties or functions deranged. Let it only be conceived, therefore, that the brain is the seat of the affections and intellectual faculties, and there is no difficulty about the matter; it is enough to recognise derangement in the manifestation of the faculties, to be assured of the existence of derangement in the organisation with which they are connected. This is the only rational ground upon which we can regard the treatment of insanity as a point within our

In some of the slightest and most evanescent forms of insanity, those, namely, which supervene during the puerperal state, and in all probability from sympathy with irritation in the uterine system, we have seen that the practised eye can detect, in the colour especially of the cineritious substance of the brain, departures from the normal or healthy condition of this delicate structure. When we hear of violent symptomatic disease, without any trace of organic lesion discoverable after death, we may rest assured either that the competence of the individual who made the post mortem examination is questionable; that due care had not been practised in endeavouring to arrive at a correct conclusion; or, finally, that the evidence of organic mischief has been effaced by the cessation, after death, of all action in the part affected. As the brain and the nerves of smell, sight, hearing, taste, and muscular motion are concerned, it is worthy of remark that we are without one of the most signal and constant concomitants of organic mischief in almost every other part of the body, namely, *pain*, the absence of which has probably had its share in inducing the prevalent scepticism, as to the occurrence of alterations of structure in

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province. If there be any fallacy here, we must at once yield all pretensions to a knowledge of the nature, causes, and seat of the disease, and at the same time renounce all claim, as professional men and naturalists, to undertake its cure.

the brain in connection with insanity. It is at first difficult to conceive how the part which has never ached should become changed in its intimate structure; but when we come to regard pain as indicative of disagreeable affection or derangement of the nerves of feeling, — in those nerves peculiarly which are dispersed over the body as its sentinels and monitors for the prevention of injury,—and consider the other nervous fasciculi as entrusted with their own peculiar sensations, (one of which is smell, another sight, another hearing, another taste, another the sexual appetite, another the love of offspring, another general attachment, another the perception of the existences of things, another of their magnitude, another of their colour, another of their number, &c.,) we at once perceive that their disorder will not be made manifest to us by the presence of pain, but by the disorder of the specific functions over which they severally preside. Pain, increased heat, and augmented redness, are the characteristic local symptoms of inflammation affecting the parts of the body at large. The first is absent when the substance of the brain itself is affected in a way that is evidently identical with inflammation implicating other structures; the integuments of the head, however, or of particular regions of the head, are frequently much hotter than natural; and when the disease has continued for some little time, before death occurs we have generally abundant evidence

of increased vascularity in the parts themselves: could we inspect them during life, we should certainly find them preternaturally surcharged with blood.

This absence of pain, again, has always stood in the way of those physiologists who, in ignorance of the pathology of the brain and nervous system, have been led to draw the strongest and most unwarrantable inferences from those cases in which extensive disorganisation is discovered in the brain after death, although, during life, there had been no evident symptom of any thing being amiss. There are numerous cases of this kind on record.*

* "A man received a musket shot in the head, which penetrated the skull, and remained lodged within the brain, so that after his death it was found lying upon the pineal gland; yet this man continued to live several years after the accident, without any derangement of his intellect. — A child eight years of age had its skull fractured by the kick of a horse, and portions of the brain, as large as pullets' eggs, were discharged; nevertheless this child recovered, without its intelligence having suffered.—Another child seven years of age, by a fall from a horse, received a severe wound of the head, which penetrated to the substance of the brain, but without causing any diminution of its intellect. — Another child lost a large quantity of brain from a wound in the head; the cortical substance was entirely destroyed in the situation of the injury, and the cavity that resulted continued for four months to be bathed in pus; yet the child spoke rationally up to the time of its death.—A gamekeeper received the antler of a stag through his brain (the horn entered the orbit, and the tip came out at the upper part of the head); yet he walked two leagues to his own house after the accident."—"A lady passed the evening with her friends; next day she died suddenly: one hemisphere of her brain was found

To reconcile these facts with the only rational physiological system of the brain which has been promulgated, and which we believe to be based on nature, it is necessary to inquire whether pathologists have as yet been in a condition to pronounce with certainty as to the influence which injuries and diseases of the brain ought to have upon the manifestations of its functions. It must be conceded that, to make accurate pathological observations, it is necessary, as a preliminary, to be acquainted with the structure and functions of the organ affected. In the first place, the true anatomy of the brain is only a recent discovery, and is still but imperfectly known to anatomists; although many of late have begun to feel the necessity of demonstrating its parts in connection, and tracing them in their continuity, instead of exhibiting a variety of sections of these at different levels, and calling the appearances presented its anatomy, — in the same manner as the structure of the arm is displayed by removing the integuments from the shoulder to the points of the fingers, and clearing the vessels, nerves, muscles, &c. of fat

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in a state of dissolution." [a] — "A clergyman of Vienna preached and gave a lesson, as usual, at his school; three days afterwards he was struck apoplectic, and died. On opening his head, a portion of the middle lobe of the right hemisphere of the brain, as large as the fist, was found in a pulpy and disorganised state." [b]

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[a] Abercrombie, quoted by Dr. Combe.

[b] Gall, quoted by Dr. Spurzheim.

and cellular membrane, not by making transverse sections of the limb at various distances downwards, and calling the appearances presented by the cut surfaces of the different tissues a demonstration of its structure. With regard to the functions of the brain, we venture to say, that all that is known about it by the generality of medical men amounts to a well-grounded belief of its being the organ of the mind; and when we find it stated that individuals have continued to manifest all their mental faculties who had received severe injuries of the head, lost portions of the cerebral substance perhaps, or exhibited large masses, and even a whole hemisphere, in a semi-putrid and diffluent state, we shall always find the mental phenomena manifested under these circumstances entitled *consciousness, a knowledge of those about them, memory*, and, as the individual did not rave, *reason*. With consciousness, memory, and judgment, nothing very essential is wanting to make up the constituents of mind; *ergo*, the patient continued in possession of all his mental faculties to the last.

The strict and only conclusion from such observations would undoubtedly be, that the brain was not the organ of the mind; and this inference has actually been drawn. But the faculties of the mind enumerated in the schools, and commented on by various metaphysical writers, are readily shown to be mere modes of action of certain of the truly primitive powers of the mind; and, further,

an immense number both of affective and of intellectual faculties can be demonstrated in nature, the existence of which is never even hinted at by the authorities in mental philosophy. So long as the functions of the several cerebral parts were unknown, it was impossible to judge of the effects thereon of injuries and partial disorganisation: but he who is acquainted with the functions of the convolutions lying immediately under the middle of the parietal bone, whilst he is not surprised, should those parts be injured, or lost, or converted into a pappy disorganised mass, that neither consciousness, memory, judgment, nor imagination is obviously concerned, would be very much amazed were the individual, in case of his recovery, to manifest so much cautiousness or timidity as was before habitual to him. If the corresponding convolutions of both sides in the situation indicated were materially injured or totally disorganised, the cerebral physiologist would as well imagine that the mind should continue to perceive impressions of light after the loss of both of its instruments — the eyes, as that the individual should, in the event of his recovery, exhibit any thing like the mental manifestation entitled cautiousness or timidity.

And here we are led to notice another oversight in the account we have of injuries done to, and of morbid appearances found in, the brain; which is, that the brain is always described as if it were single, and not composed of two symmetrical or similar

halves. One eye may be destroyed, and the other continue the function of vision; one half of the brain may be disorganised, and the other continue to manifest all the faculties of the mind; we are even familiar with paralysis of the muscular motions and general sensation of one side of the body, in consequence of organic lesion of the deeper parts of one hemisphere of the brain, whilst the motions and sense of feeling remain unimpaired on the opposite side. The same thing must necessarily hold good in regard to the particular cerebral fasciculi which are the organs of the specific mental affective and intellectual functions. Each cerebral fasciculus of one side suffers in its own function. We must conceive, however, that two organs act with greater energy than one, just as we see better with two eyes, hear better with two ears, &c. than with one; whilst we should be perfectly warranted, consequently, in saying that where an individual, one of the hemispheres of whose brain was disorganised, manifested all the faculties, we should not expect that they would be exhibited with such energy as if both hemispheres were in a healthy state.

CHAPTER VIII.

PROGNOSIS IN FUNCTIONAL DERANGEMENT OF THE BRAIN.

The prognosis in mental derangement, as in almost every other disease, varies according to its causes, symptoms, and duration, and is modified by the constitution, age, and sex of the individual affected. Recovery is generally more difficult when there is hereditary predisposition than when no tendency exists in the constitution to mental alienation. The functional derangement of the brain that is induced by external influences is generally a much less serious disease than that which arises from internal causes; and the disease induced by accidental untoward circumstances of a moral nature is less intractable than that which comes on slowly, and without any manifest moral provocative. The disease brought on by distressing moral causes, grief, &c. continued for a long time, is less easily subdued than that which explodes suddenly after emotions of a more violent kind. The prognosis in sympathetic mental derangement of the brain is always more favourable than when the affection is idiopathic. Puerperal mania, for instance, almost always ends favourably and speedily. The mania and melancholia that oc-

casionally occur among females at the age when the periodical evacuation is about to be established, are generally of a very transient description, and subside when the new function becomes regular,— just as the delirium of a fever subsides with the symptoms of the general malady.

Mania, — that is, functional derangement of the brain, characterised by greatly increased activity, rather than perversion of the manifestations, — is generally cured more certainly and speedily than monomania, especially those forms of partial derangement associated with undue or perverted action of the faculty of circumspection ; for which reasons very satisfactory have, we believe, been rendered. In mania, the symptoms are alarming, and make a great impression on surrounding friends, so that the invalid is immediately attended to, and every desirable assistance at once procured.

It is otherwise with the melancholic patient: the symptoms in this disease are generally long in attracting serious notice: he is left to himself, perhaps for years; and, not unfrequently, he is treated as a fanciful, contradictory, and disagreeable person, who is nowhere so well as in his own chamber, and left to the companionship of his own solitary meditations. " The progress of the disease in this instance is, therefore, very insidious ; and it has often become incurable before some intervening accident causes it to appear in its proper

guise."* Nor is it merely friends and attendants who thus treat the melancholic as fanciful beings labouring under no malady but what they are pleased to style imagination. We regret to state that many members of the medical profession are not yet aware of the corporeal nature of these derangements of the imagination. We have heard and known of several medical gentlemen attempting to persuade an individual labouring under many symptoms of disordered cerebral function that the strange sensations he experienced were merely imaginary and fanciful.

The form of cerebral derangement characterised as mania would also appear to be in itself a more tractable malady than that which is distinguished by the epithet melancholia. Mania is commonly a disease of pure excitement; and the inflammatory state of the brain is successfully attacked by blood-letting, reduced diet, and smart purgatives, — the most powerful of all the therapeutic agents.

Melancholia, again, is essentially a chronic affection, marked with little of excitement in any organ of the body; appearing among weakly, delicate, and what are called nervous individuals, and generally supervening under depressing or debilitating influences. The same active remedial measures are totally inapplicable here, and we are left in possession of others efficacious in controlling morbid actions. The general prognosis is, conse-

* Spurzheim, De la Folie, p. 231.

quently less favourable in melancholia than in mania.

When mania and melancholia succeed and alternate with one another, the disease of the brain is generally rebellious.* Certain forms of melancholia are more intractable than others; religious melancholia, for instance, is cured without difficulty. The monomania which takes its character from predominating varieties of self-esteem or cautiousness is also difficult of treatment. The impress which a defect of the latter faculty, in combination with a propensity to suicide, makes upon the malady, has even been held to be incurable, or, at least, as very seldom cured. We have had frequent opportunities of confirming Spurzheim's judgment, who maintained it curable as well as mania. "When the cause of insanity," says that great writer, "shall come to be regarded as corporeal, and the nature of the disease is distinguished from its symptoms; when recourse shall be had early in the malady to adequate means of treatment, the number of cures will certainly be found to increase immensely." †

The recovery from derangement that follows the habitual indulgence in spirituous liquors is generally very speedy: but, dram-drinking being a habit but rarely corrected, the disease repeatedly occurs, often ending in organic changes of the brain, and frequently leading to paralysis, when the malady becomes utterly hopeless. The prognosis in this

* Esquirol, Dict. des Sc. Med. t. xvi.

† De la Folie, p. 240.

kind of insanity, therefore, is mostly unfavourable. So also when it is complicated with epilepsy. When the disease of the affective or intellectual faculties is associated with false perceptions, or *hallucinations*, as they are called, depending on affections of the internal organs of the senses, it is less amenable to treatment than when without this accompaniment.

The time during which functional derangement of the brain has existed bears directly on the nature of the prognosis: in the abstract, and generally, the prognosis is favourable as the case is recent, unfavourable as it is of longer standing. So long, however, as an individual keeps free from symptoms of organic lesion of the brain, it is impossible to maintain that he is absolutely incurable: individuals have recovered after having been insane for ten, fifteen, and twenty years. The mean term of treatment in cases that recover is somewhat less than a year. The greatest possible number of cures are accomplished within the first two years. It is impossible to fix upon any period at which simple functional derangement of the brain (*i. e.* mania or monomania, uncomplicated with organic mischief) becomes incurable.

Individuals of robust constitutions recover much more certainly and speedily than persons of delicate and susceptible habits. Very evident affection of any other organ, as of the stomach, liver, &c., renders the prognosis less favourable.

Individuals attacked with cerebral derangement under or about the middle age are more likely to recover than those who become so later in life: the prognosis among the youthful, especially where hereditary predisposition is known or suspected to exist, and the disease is not traceable to any purely accidental circumstance, is generally unfavourable. Such cases are very apt to be followed either by acute disease in the brain or its membranes sufficient to destroy life, or they end in fatuity and premature decay of body as well as mind.

The sex of the individual has been said to influence the prognosis — that, all circumstances equal, more women recover in proportion than men: in the mass this may be so, though in individual instances the influence of sex is always lost sight of, and the prognosis must be based on the other circumstances of the case.

Every thing like an appearance of dementia, or fatuity, must be held as a bad omen: the prognosis is also very discouraging where no kind of treatment employed produces good effect within a moderate period of time. On the contrary, when the more acute stages of the disease have been accompanied with considerable attenuation of the frame, and the *embonpoint* begins to return at the same time that the symptoms become more moderate, and the patient shows something of a disposition to revert to his favourite occupations and wonted habits, we may augur very

confidently of the happy issue of the malady. The return of appetite, a natural expression of countenance, and a fulness of flesh, with a natural pulse, without decrease in the symptoms of functional derangement of the brain, are, however, signs frequently of a very unfavourable character: the disease is then apt to terminate in dementia.* Still there are many circumstances in this state which may induce us to modify this prognosis: fatuity is by no means a necessary consequence. We have had under our charge numerous instances of chronic cases in which we have succeeded in accomplishing cures by the continued application of moral means; by exciting those faculties that remained in a healthy state, and, by muscular exertion and other remedial agents, obviating nervous susceptibility. To these direct measures, in inveterate cases, we have added another of a purely medicinal nature, of the effects of which we are inclined to think most highly: this is the exhibition of iodine internally, till a certain predisposed constitutional change is effected. Of this we shall have occasion to speak more at large in our chapter on the medical treatment.

* Foville, loc. cit., p. 561.

CHAPTER IX.

TREATMENT OF FUNCTIONAL DERANGEMENT OF THE BRAIN.

THE treatment of deranged manifestation of the mental faculties has very commonly been considered under two heads, one designated MEDICAL, the other MORAL. The propriety of adding a third and preliminary head, on the PREVENTIVE TREATMENT, is made so evident by a perusal of the latest and best work on mental derangement *, that we shall briefly follow this author on the means most proper to abate predisposition, and to ward off impending or incipient functional derangement of the brain, before entering on the remedial means for the established disorder.

Preventive Treatment.

"Children who may be suspected of a constitutional tendency to derangement," Dr. Combe justly observes, "ought to be educated with express relation to their infirmity, and every precaution adopted to give them security against becoming its victims. The nervous system in these children is often extremely and prematurely active; they

* By A. Combe.

learn with great ease all that is required of them, and are mostly very sensitive in their feelings and passions. To prevent this high activity from becoming truly morbid, the amount of mental occupation must be carefully regulated, and never continued long without intervals of relaxation and bodily exercise; no lessons are on any account to be given late in the evening, nor is mental occupation ever to be allowed immediately after meals. Every means are, at the same time, to be employed which by experience are known to increase the vigour of the muscular and organic functions generally; varied out-door exercise, the practice of gymnastic games in the open air, riding on horseback, &c., and the careful avoidance of excessive stimuli of all kinds, moral as well as physical. Whatever feeling appears too active should be carefully guided in its use and application, and rather kept in abeyance than maintained in its energy by being constantly appealed to. Many of the predisposed, at a very early age, exhibit certain of the affective faculties, more especially, in a high state of activity. It can hardly be necessary to say that these are not by any means to be encouraged. It matters not whether they be of the lowest order of the propensities, or of the highest of the sentiments: all faculties — the highest as well as the lowest — gain strength by indulgence;" and it is an unimportant matter, whether a patient

is mentally deranged through inordinate and perverted activity of combativeness and destructiveness, of cautiousness and conscientiousness, of self-esteem and love of approbation, or of benevolence, veneration, hope, and the sense of the supernatural. Be it remembered also that the converse of this proposition is likewise true, and that every faculty by neglect declines in power, so that even the organ by which it is manifested shrinks in size. The convoluted or closely folded retina of quick and far-sighted birds becomes simple and continuous when they are shut up in a narrow cage, or kept in the dark. How important, then, to keep alive all the powers of the mind! — even to attempt to arouse those that are naturally most inactive, — although the task is one, the unpleasantness of which may be judged of by its being almost uniformly neglected by those who have the charge of the education of youth.

The necessity of a habit of self-control should be constantly impressed upon the minds of children: a proud and violent child never becomes better for having his self-esteem offended by blows, and witnessing his own most easily besetting sin — passion — in his instructor. The virtuous and proper direction of self-esteem must be pointed out; its encroachments in every other quarter must be carefully repressed, and never suffered to pass unnoticed. Nor is there generally much difficulty in finding a means of satisfying its possessor

that extravagant ideas of one's own importance are ridiculous.

The child who would domineer over a servant, for example, should be left without the assistance of any attendant for some time: this would be better discipline than a blow.

Those powers, again, that are inactive must be strengthened; a modest deportment should be inculcated; benevolence should be stimulated by all appropriate motives; and habitual courtesy of bearing and gentleness of conduct should be enjoined. But were we to proceed further with this subject, we should appear to be writing a treatise on education, instead of continuing our remarks on the treatment of mental derangement.

But of the advantage of watching and directing the manifestation of the faculties in the predisposed with the view of preventing the occurrence of mental derangement, there cannot be a doubt: and were this done to a greater extent than it is, and the grounds of procedure better understood, there is little question but predisposition might in many cases be overcome entirely, and nobly endowed individuals secured in the possession of their mental sanity.

Of the importance of the topic we now touch upon, some idea may be formed by an attentive perusal of the following passage from one of the works of Esquirol, the pupil and friend of Pinel,

and among the greatest of living authorities on the subject of mental derangement: —

"Almost all the insane committed to my care," says M. Esquirol, "had offered some irregularities in their functions, in their intellectual faculties, in their affections or feelings, before becoming deranged, and that from their earliest infancy. Some had been distinguished for excessive pride; others for great irascibility; others for a ridiculous levity, predominant hope, and love of approbation: some for a great uncertainty in receiving instruction; others for an obstinate application to whatever they undertook: others peevish and discontented, fearful, timid, and irresolute; and some rashly daring. Most of them, too, had suffered from nervous diseases: the women from convulsions or hysterical attacks; the men from cramps, palpitations, or palsy. With these primary or acquired dispositions nothing was wanting, except some moral affection to determine the explosion of furious mania, or the deepest melancholy."

With attentive observation, we hold it impossible to overlook the influence of excessive activity of individual faculties in inducing functional derangement of the brain; and, as a corollary from this fact, we recommend strongly the necessity of repressing by every means predominating activity of any one faculty over the others, and, as the most effectual means for accomplishing this, the propriety of exercising habitually and constantly

the most sluggish of the propensities, sentiments, and intellectual faculties. He who will do so systematically may depend upon it that he is by no means wasting his labour. He has a barren soil, it is true, to cultivate, but it will yield him something in almost every case; and the majority of them will even turn out more productive than he anticipated.

The value and importance of *regular sound sleep* cannot be sufficiently estimated, as a means of warding off an attack of this insidious malady. The want of this is very generally one of the earliest symptoms of impending danger, and should at once arouse all our fears, and excite our vigilant attention, where we are led to suspect that there are causes at work calculated to produce the disease. It matters very little what the nature of the cause may be — whether too eager study, too constant devotion to business, crosses or successes — that excite the mind: if the want of sleep be experienced, particularly if it be associated with the direction of thought in one particular channel, the individual, or his friends, should immediately take the alarm, and business or serious occupation of every kind be forthwith abandoned for relaxation and ease. Change of scene will be found very important also, in most instances.

It is in these cases, too, that one or other of those invaluable and recent adjuncts to our pharmaco-

pœia, the salts of morphia, become of essential service. By a cessation also from his usual avocation, by regular muscular exertion, early hours, abstemious diet, together with a dose of the acetate or muriate of morphia each night at bed-time, and as much castor oil, confection of senna or aloes, and myrrh pill as will keep the bowels comfortably open in the morning, the threatened attack may, in the generality of instances, be prevented, and the individual enabled ere long to return to his accustomed pursuits, warned by experience of the necessity of moderation.

It is superfluous, we should hope, to insist upon the propriety of the predisposed, or even others, especially avoiding all the known direct exciting causes of functional derangement. These we do not consider it necessary to enumerate here, having done so in a prior chapter.

CHAPTER X.

MEDICAL TREATMENT OF FUNCTIONAL DERANGEMENT OF THE BRAIN.

We can scarcely be surprised that the medical treatment of mental derangement should hitherto have been so singularly defective. In very many establishments, nominally destined for the cure of this disease, the amount of all that has been done medicinally is so little, that it never could have any influence over the progress of the malady: nature has as yet worked far more cures than the physician. Where something like more active practice was attempted, it usually consisted in a mere routine of vain attempts to subdue particular symptoms, and the indiscriminate use of therapeutic agents, without any consideration of the nature of the disease itself, the circumstances under which it had arisen, or the constitution and general health of the individual affected. How can we hope to treat successfully any infirmity with the nature of which we are totally unacquainted? With what show of reason can we prescribe abstraction, purging, or any other remedial means, if we deny that there is any system in the body specially affected? or if we view insanity as a disturbance of

the soul or vital principle, with the entire nature of which we are totally unacquainted, instead of regarding it as a corporeal disease, subject to the laws of the vital organisation, and to be influenced in the same way as pleurisy, rheumatism, or neuralgia, why do we recommend the employment of therapeutic means, blood-letting, the regulation of temperature, diet, &c., and the regulation of the functions of organic life generally?

But the veil of obscurity that has so long hung over this particular class of diseases is already beginning to admit the light of anatomical and physiological science; and the day is certainly not far distant when empiricism, hypothesis, and prescription will all give place to a rational theory, the result of pathological principles, and resting on the immutable basis of observation and induction.

One word in regard to the importance of medical treatment, before we enter upon its particular consideration. In the public asylums of the Continent, this country, and America, the total number of recoveries varies from about 30 to 50 per cent. Broussais, however, speaks confidently of his ability to arrest incipient mania with as much certainty as incipient inflammation. We have avowed our own concurrence in this statement of the distinguished chief of the physiological school. Dr. Ramsay cites the continual experience of the Dundee Asylum, as proving beyond all doubt that the disease, at

its first appearance, yields, for the most part, readily to prompt and judicious measures. At the Retreat, near York, the recoveries in recent cases previous to 1811 were in the ratio of about 89 per cent.; since that time, the ratio in the same description of cases is even higher, being about 90 per cent. In those of every variety, the ratio in the same establishment is less favourable, scarcely amounting to 50 per cent.

Dr. Burrows, a physician of deserved celebrity, gives the ratio of cures effected in recent instances at about 91 per cent., and in all cases at about 81 per cent.

At the Connecticut Retreat, North America, so admirably is the treatment adapted to the varieties of the disease, that no less than 21 out of 23 recent cases, or 91$\frac{3}{10}$ per cent., recovered.*

So much for the value of medical treatment. It cannot surely be a matter of indifference to us, as professional men or not, whether one in four or five, or nine in ten, of those whom we know to be bodily afflicted, or who are confided to our especial care, shall recover; and no one, who has paid the slightest attention to this subject, can doubt for a moment that the potential cause of the difference of result arises from the medical means enforced.

The medical treatment of insanity, then, is to be

* Hall's Travels, U. S.

conducted on the principles of general pathology. The brain is the organic part particularly affected: what shall we do for its relief? We must proceed precisely as when we have to do with any other organ of the body in a morbid state,— make a particular study of the symptoms in the case before us, and ascertain whether it is a general or only partial affection of the organ implicated. This inquiry is of importance as regards the brain, which is not a simple structure, but formed of distinct parts intimately connected with each other. If the derangement is partial, it is essential to ascertain the particular cerebral fibres most strikingly disordered. In addition to all this, we must endeavour to discover the cause of the derangement; and, further, to keep an eye on the modifications which, as pathologists, we know to be induced in the morbid affections of every organ by the circumstances under which they make their appearance: the age, sex, temperament, and mode of life of the individual affected; the climate, season of the year, &c., in which they happen.

Idiotcy from birth, whether complete or partial, yet evidently depending on defective organisation of the brain, or a morbid condition of that organ, such as hydrocephalus, hypertrophy, &c., is beyond the reach of medicine, in so far as the mental deficiency or infirmity is concerned. Idiotic or very dull children, however, from the natural configura-

tion and size of whose heads no congenital or organic imperfection need necessarily be inferred, although not properly falling under the care of the medical practitioner, should still enjoy the advantages of his notice. He should rescue them from harsh treatment, and enforce a constant attention to their general physical developement, in the hope that, with the progress of years, the brain will acquire greater strength, the mental faculties be manifested with higher energy, and the individual become susceptible of more extended education. The change and the improvement in such cases, where they do fortunately take place, is hardly greater than that which we witness between the infant a few days or weeks or months old, and the man in his maturity of years and strength of moral and intellectual endowments.

Experience has not yet demonstrated that dementia, or the fatuity consequent upon active functional derangement of the brain, is absolutely incurable up to that stage in which it becomes complicated with paralysis, or with evident diminution in the size of the head, in consequence of atrophy of the brain. When dementia has supervened under a debilitating plan of treatment, or has followed acute mania in an individual who has become insane under exposure to privations of every kind, we may hope that an invigorating system of diet, moderate exercise, and the use of every means

calculated to arouse the enfeebled organisation into activity, may prove of service.

There are many cases on record which warrant us in persevering under these circumstances. One of the most remarkable is related by the respectable Dr. Rush, of a gentleman whom loss of fortune had first made insane, and then fatuous. This individual was reduced to so low an ebb, that he became insensible to the stimulus of hunger: he would have died of inanition without complaint, had there not been some one to watch him. For five years he was tended like a child — fed, clothed and unclothed, &c.; where he was set he remained immoveable throughout the day, his eyes fixed upon the same spot on the ground. Tonics and a nutritious diet were the only remedies prescribed. One day, to the astonishment of all, he bade the other convalescents of the establishment good day, and even thanked the attendants for all their kindnesses and attentions to him. From this time forward he improved rapidly, and within a short period had completely recovered. He afterwards said, that, during the long period of his illness, his mind had been entirely lost to him; but that, for about two months prior to the day on which he spoke, he had begun to have thoughts and sensations as before his affliction.

This fact is surely enough to operate upon us never to despair, nor to desist from endeavours in conformity with the general circumstances of the

case to accomplish a cure. Consciousness of existence, and restoration to all that makes life desirable, are still to be regarded as blessings that may be extended to every patient whose brain has suffered no organic change, however impenetrable may be the cloud that hangs over his moral and intellectual being. We have seen this to be often dissipated by the approach of death; and that he who has lived for years, perhaps, totally insensible to passing occurrences, often brightens up some few hours or minutes before the spirit quits the clay, apparently reinstated in the possession of all his faculties.

This fact alone is an assurance that the corporeal organs, with which the Creator has connected the manifestations of the mind, are not deranged to the extent of utter inability to resume the functions for which they were originally designed; nor can we ever be persuaded that science is without the means calculated to accomplish that remedially, which we occasionally see so fatally produced by the declining powers of life. The anatomical and pathological facts quoted afford full conviction that the derangement of the functions characteristic of insanity, or with which it is at all events accompanied, is to a certain extent attributable to a disturbed state of the circulation in the brain or its parts. Many have not hesitated to speak of this state as inflammatory, and most writers have

used other words to designate it which seem to signify the same, or something not materially different from inflammation. And so, probably, it is in the early stages of very many cases of insanity, although not in all.

It must be admitted that the most efficient means we possess of controlling increased vascular action, arising from fulness of habit, is blood-letting. Is blood-letting, then, a practice commonly beneficial in the treatment of insanity? This is a question that has been answered in diametrically opposite ways by the very highest authorities upon the subject of mental derangement; and whilst some have held blood-letting to be the principal or the sole means of cure, others have decried it in any shape, as utterly impotent in arresting the progress of the disease in its earlier stages, and even positively injurious in all the after-periods of the malady, as prejudicial to the general health, and as materially retarding the recovery of the patient. Pinel was a decided opponent of blood-letting, and he is an authority worthy of the highest consideration. "A bleeding," says he, "is a very rare occurrence in the Hospice des Aliénés since I have had the charge of the establishment." Pinel thus generally proscribed blood-letting as positively detrimental; although, we believe, he somewhere admits in his work that the abstraction of a little blood will sometimes prevent the occurrence of the paroxysms in cases

of intermittent mania. The pupil and friend of Pinel too, the benevolent Esquirol, has never found blood-letting indispensable as a general rule in the treatment of mental alienation. He has, on the contrary, always remarked, that the disease is aggravated by the periodical evacuation in females when it proves copious; and he has even seen a state of simple depression of spirits pass into one of maniacal furor by a resort to one, two, or three bleedings from the arm. Still there are circumstances under which this distinguished practitioner admits the topical abstraction of blood to be unequivocally useful and indispensable—among the obviously plethoric; in those in whom some habitual sanguineous or other evacuations were suppressed; and in those in whom the blood seemed to be driven suddenly towards the head, as if jerked by a piston. He frequently orders leeches to the back of the head and temples, in small numbers at a time; whilst cold applications are kept to the head with the best effects.

All our experience has led us to conclusions precisely similar to those of M. Esquirol. In the youthful and obviously plethoric, and in the first periods of the attack, general blood-letting may be adventured on cautiously; unless, indeed, the symptoms approximate to, or prove identical with, those of phrenitis, when, indeed, copious venesection becomes indispensable to subdue action so

violent in itself as immediately to threaten the patient's life. It is cases of this class — which are, more properly speaking, phrenitic attacks — that are alluded to in the tables given by Dr. Burrows and others; and they are, of course, as simple, and as easily subdued, as any other inflammatory action in the system.

At later periods of the disease we have never known general blood-letting to do anything but harm; and we are of opinion that even topical bleeding may, in the vast majority of cases, be advantageously dispensed with. There are others again in which, even at the beginning, it is productive of unmingled mischief, — where mania or melancholia, that was in all human probability perfectly within the reach of art, is changed into incurable fatuity or hopeless idiotcy. The individuals to whom these remarks apply are for the most part of delicate general health and weakly bodily constitution; they are of a highly nervous or sanguineo-nervous temperament, and upon inquiry will commonly be found to have been exposed to debilitating influences previous to their illness, or to have been subsequently reduced by lowering treatment below the standard at which healthy action can alone proceed. Cases of this description require a tonic course of treatment: yet the diet, although nutritious, should by no means be stimulating.

The warm bath generally, and the application of cold locally, are among the most universally available of all the remedies we possess for the treatment of this malady. The simple warm bath, in cases where the skin is unperspirable, is decidedly beneficial, being calculated to restore the functions of this very serviceable membrane; and must, therefore, be held as greatly contributing to the cure.

The direct medicinal effect of the warm bath is greatly increased by keeping cold applications to the head whilst the body is immersed in the water; and this not for a few minutes, and once only, but for hours at a time, and repeatedly in the course of the day.

All who have had opportunities of watching the effects of this mode of using the warm bath must have observed its powerful influence in subduing agitation and producing tranquillity. Patients whose violence no other means can control, and whose obstinate sleeplessness nothing remove, become calm and peaceable, and often sleep uninterruptedly in consequence. This combined remedy is also applicable, in many cases, from the very commencement of the attack, and has even been held sufficient of itself, if taken in time, to subdue the disease. To this we can speak positively, and believe it generally capable of arresting an impending attack of intermittent mania; and we

know it is one of the most beneficial measures that can be adopted as an adjunct in the treatment of many stages of mental derangement.

In making cold applications to the head, the shower bath deserves mention; though pounded ice has very generally been preferred, as being, undoubtedly, a very powerful allayer of irritation. It is most desirable to diffuse the ice over the entire superficies; yet more necessary, perhaps, in the majority of instances, that it should be applied around the base than merely upon the crown of the head. The bladder in which the pounded ice is contained ought always, consequently, to be of the requisite size and shape; though it is, perhaps, better to have it a little too large than otherwise.

We are of opinion, however, that ice is by no means an indispensable article in the kind of treatment we are now considering. The body immersed in a warm bath at from 80° to 100° Fahrenheit, and a sponge dipped in water or vinegar, or spirits and water, at the temperature of from 40° to 50°, applied at short intervals over the surface of the skin, and uncovered, so as to keep up constant evaporation from its surface, is hardly inferior to the direct application of ice. Nay, we are inclined to give it the preference in some cases: if less speedy in its effects, the reaction that follows its use is less considerable; it is of the most easy application, and always within our reach, which is more that we can say of ice.

In very delicate females, we apply the sponge at a temperature which is not unpleasant to the feelings, in the first instance, and trust to the ensuing evaporation as the refrigerating agent. In those cases in which the disease is characterised by disturbed functions of one or other of the cerebral fasciculi rather than of the brain at large, we are in the habit of partially applying refrigerating means, and mostly with excellent effect. To do this advantageously, of course, implies acquaintance with the seat of the several fasciculi appropriated to the various species of mental manifestation.

How it happens we cannot very well explain; but there is no question of the fact, that disease of the internal organs is in many instances proclaimed by pain, uneasy sensation, or increased heat in the integuments covering the organs. The same thing has been remarked by several observers in regard to the affections of certain portions of the brain; over which the integuments are found manifestly hotter than over the parts or organs in their immediate neighbourhood. We have often remarked a considerably augmented temperature in the upper part of the nape of the neck where the cerebellum was affected. Ice applied to the part for several successive hours, and renewed twice or thrice in the course of the day, here proves always salutary.

We have also known the same means, applied in a different situation, of essential service in cases characterised by much violence, — in others distinguished by inordinate suspiciousness, vanity, pride, &c. &c.

The cold bath is less generally available in the treatment of mental derangement. In debilitated constitutions, the tepid and then the cold shower bath, conjoined with nutritious diet and a general tonic regimen, have often proved of unquestionable benefit. The *cold douche* to the head, whilst the rest of the person is immersed in a warm bath, is a modification in the manner of applying cold, which, by the suddenness of the shock, has a similar effect to what is called the *bath of surprise*, — a means still retained in some establishments, but which, in our opinion, requires to be used with great discretion; for we are very doubtful if we have not seen it tend directly to *confirm*, instead of to cure, disordered manifestation of the mental faculties. Its effects may be thus described: — The naturally courageous and strong individual all at once finds himself in a situation of imminent danger, and, suddenly plunged out of his depth in cold water, may hence be aroused from the delusions that possess him, and such a change possibly be effected in his mental operations generally as might restore him to his senses; but the naturally timid and delicately constituted individual, in such a

situation, is only more completely overwhelmed, when the shock, instead of proving advantageous, becomes positively injurious.

The bath of surprise, then, is a doubtful remedy; and in all cases where good hopes are entertained of a cure, we do not think it justifiable to resort to the adoption of any measure of such a character.

Purgative medicines are of approved use in the earlier stages of functional derangement of the brain; and in every period of the disease gentle aperients should be administered if the bowels evince the slightest disposition to sluggishness. In confirmed insanity all violent remedies do mischief, and purgatives among the number. In these cases we have long banished drastics from onr practice; quantities of the confection of senna, of the aloes and myrrh pill, of the compound rhubarb pill of the *Edinburgh Pharmacopœia*, or of a pill containing equal parts of the extract. hyoscyami and extract. colocynth. comp., conjoined with some aromatic, as the confect. aromaticæ, sufficient to secure one healthy evacuation of the bowels in the course of the four-and-twenty hours, being all we have ever found beneficial—more especially so when combined with mild and safe hepatic remedies.

Somewhat akin in their action to aperient medicines are *revellents*, or *counter stimulants*. All are aware that blisters, the most generally em-

ployed of all the remedies of this class, when applied in the neighbourhood of parts affected with acute disease, before the first general symptoms have been abated by appropriate treatment, far from proving serviceable, almost invariably aggravate the malady. Blisters to the scalp are now much more rarely prescribed than they used to be; and unquestionably the practice has fallen into discredit from the want of success attending their application. We have no doubt but that in recent cases they have often done a great deal of injury. When functional derangement has become essentially chronic in its nature, however, we believe counter-stimulants to be generally available, and to prove highly curative. It is not at all times easy to regulate the extent of inflammation produced by blisters. Where it runs high, and considerable pain ensues, no good, but on the contrary mischief, is done; a consideration which has induced me to have recourse to rubefacients, rather than to the degree of inflammation which is followed by vesication.

This is a means, too, which is readily applied to the part over the cerebral organs which we are anxious to arouse into healthy action, or the mode of whose action we would gladly change. We have found no rubefacient so effectual as the moxa, passed closely over the surface to be stimulated, and at such a distance as may produce the amount of stimulus desired. It is exceedingly manageable,

and the effect produced is much greater and more permanent than that which follows the application of a blister for such a length of time as is required to accomplish the same apparent amount of excitation. Another remedy, which may be viewed in the light of a counter stimulant, although its action is probably also combined with something of a specific effect, and which we have been in the habit of using with great confidence in many of the chronic cases, and often with the best effect, is an ointment of iodine, or hydriodate of potash. This we have, for the most part, directed to be rubbed in over the cerebral organs which gave evidence of being, at one time or other, in a state of disease, and which, by their primary derangement, seem to have been the cause of the general overthrow of the mind which has ensued. As a counter-irritant, the ointment of tartarised antimony may be used. These, or any other remedies, are to be enforced in conjunction with an alterative or otherwise active treatment of the digestive organs, and the adjuncts of baths, &c. But on this point we shall hereafter give a more digested plan.

The grand *tonics* are unquestionably nutritious and easily digested food, pure air, and regular exercise. Without these, we lavish the preparations of bark and steel, astringents and bitters, in vain : with their powerful assistance, we can generally dispense with the whole catalogue of

medicines to be found in books of the materia medica as tonics. Still there are cases in which advantage is derived from the exhibition of light infusions of preparations of bark, and particularly of the colomba root. In others, of pale leucophlegmatic habits, unquestionable benefit is obtained by the exhibition of iron in one or other form of preparation, — the carbonate, the muriate, or the sulphate. These last medicines, however, require great care in their administration: they often prove a two-edged sword, and in unskilful hands may cause much mischief. They are consequently to be exhibited cautiously, and their effects particularly watched.

Although not properly included within the class of tonics, there is another medicine which has frequently an effect very similar to that which the mind conceives as characteristic of the kind of action implied by the word *tonic*, and which we have often had occasion to witness as very beneficial in cases of chronic functional derangement of the brain with want of power in the system generally, and more especially in the digestive organs: this is the *carbonate of soda* simply, or its power heightened by the combination of an infusion of bark, colomba, &c.

All who have paid attention to the subject of mental derangement, especially as it occurs among persons of delicate constitution and tender nurture, must have remarked the weakness of stomach,

and proneness in this viscera to generate acid, as a very constant and obstinate feature in the general malady. We have never hesitated, in the first instance, to attack this state of stomach by means of the carbonate of soda, and that not in the inert doses of a few grains, as generally prescribed, but in quantities of one, two, three, and even four drachms at a time. This course, continued for a period (with due attention to the bowels subsequently, and a regulated diet), has proved with us universally beneficial; and has very frequently, as we are justified in believing, laid the foundation of that success which has ultimately crowned our efforts to subdue the irregular and morbid action in the brain that caused and kept up the mental imperfection under which the individual laboured.

We are not by any means prepared to maintain that the excessive generation of acid is a feature common to every case of dyspepsia or indigestion. Thus much, however, we will say, that it is one of very general occurrence. The result of the best experiments we possess upon the subject of digestion proves the existence of a certain amount of free acid in every, even the most healthy, stomach; but then the quantity is extremely small, and its kind is not invariably the same, the muriatic as well as the acetic acid having been detected in different animals. In weak stomachs given to the generation of acid this appears to be invariably the acetic; and it is assuredly occasioned by the unwonted fermentation of the food.

The strength of the acetic acid, or vinegar, sometimes engendered in the stomach is surprising; it is such as severely to excoriate the throat and mouth when ejected by vomiting, and so acrid as rapidly to corrode cloth, iron, or steel.

One of the earliest symptoms of indigestion is the presence of an undue quantity of acid in the stomach; and the whole train of uneasy sensations that occur is often almost instantaneously suppressed by neutralising this acid through the medium of some of the absorbent earths, as they are called — chalk or magnesia, or by one of the alkalies — soda, potash, or ammonia. Nor is it only in correcting the mischief when accomplished that these agents are effectual; some of them, we feel assured, possess the property of entirely preventing its occurrence. To be satisfied on this point, we tried a variety of experiments upon different species of the lower animals, one or two of which we shall briefly refer to.

We selected two healthy young monkeys, nearly of an age. We preferred them to any other, in this instance, for experiments, on account of their similitude to man in their omnivorous capacities, as also in their passions. These creatures we had placed precisely in the same circumstances, and treated as nearly as might be in the manner in which we are accustomed to treat ourselves in society; that is to say, we had them placed in a comfortable warm room, gave them little opportunity for ex-

ercise, dieted them, according to the fashion of the times, with an abundance of the staple articles which constitute the food of an Englishman: they had tea, bread and butter, with some animal food, for breakfast; meat, vegetables, fruit pies, raw fruit, beer, and wine, for dinner; and tea and supper as these meals are taken among the middling classes of society. In short, they were treated every way alike; save that to the one, and not to the other, a drachm and a half of the carbonate of soda, dissolved in water, was regularly administered in three doses during the course of every day. At the end of six months the two animals presented a very different exterior, and were evidently in dissimilar states of health. The one to whom the soda had been given was plump and lively: the other was thin, spiritless, and obviously diseased. We had this creature killed; when, upon examining its body, we found the muscles to be shrunk and pale, the stomach and alimentary canal congested, the mucous coat of the former especially thickened, the right lobe of the liver indurated, and the mesenteric glands much enlarged.

For fear the above result might have been occasioned by circumstances with which we were not acquainted, or over which we had no control, the same experiment was repeated, with precisely similar effects, on two other animals of the same species; and also a third time, upon two strong whelps of

the Newfoundland breed of dogs, without any material difference being observable. The carbonate of soda appeared to prevent the accession of disordered function in each instance: — the animals that were pampered and over-fed, without having it administered to them, became sickly, and pined: those who took the salt three times a day throve, and enjoyed to all outward appearance the best state of health; nor, upon dissection, could any trace of disease be found in their bodies, which was always very apparent in those of the others.

Infants, we know, occasionally suffer exceedingly from the formation of acid in their stomachs; and we have been witness, in a very remarkable instance, of the excellent effects of the alkalies in combination with a light infusion of rhubarb: we shall briefly relate the circumstance. Twin boys, very healthy children, were placed, as nearly as might be, in similar circumstances, with two different and excellent dry nurses. One child was observed to thrive amazingly; but the other looked puny, and was evidently in indifferent health. Upon expressing our particular satisfaction at the appearance of the robust infant one day, the nurse, with a very complacent look, begged to assure ue that "it all came of her bottle." On analysis of this medicine, we found it to contain a mixture of liquor potassæ, infus. rhei, aqua anethi, and simple syrup. This mixture she was in the habit of giving to her little charge in

the dose of a tea-spoonful night and morning, and more frequently still when he did not seem quite himself; though the original instructions prescribed only a few drops.

The following instance illustrates the influence of the alkaline carbonates in correcting a deranged state of the digestive functions: — A gentleman holding a high official situation, aged forty, whom we met accidentally in company, we observed to be exceedingly particular in all he ventured to eat. On inquiry we were informed that he had suffered so long and so severely from indigestion, that life had become a burthen to him. He was sick at the mention of medicine, having tried many kinds for years without the slightest permanent benefit. We, however, persuaded him to try the effects of two drachms of carbonate of soda dissolved in a little weak bitter infusion, twice or thrice a day, under the care of the professional gentleman who habitually attended him. Although somewhat startled at the magnitude of the dose, he said he would, in desperation, make the trial, on our assuring him that the medicine certainly could not do him harm, but, on the contrary, as we felt persuaded, great good. Five months afterwards, we received a letter from this gentleman informing us that, almost from the first day of taking the large doses of carbonate of soda, he had felt himself another man. At the date of his letter he was eating and drinking *ad*

libitum; he had recovered all his former strength, and had grown so hale and stout that he assured us we should not know him again.

A lady of distinction, whom we visited for some time, along with her ordinary medical attendant, a practitioner of eminence, suffered from indigestion nearly or altogether in as great a degree as the gentleman whose case we have mentioned above. All dietetic means, combined with the exhibition of alteratives, aperients, small doses of the alkalies, &c. had also proved utterly unavailing in his instance. At our earnest request, the patient was prescribed an ounce of carbonate of soda, divided into five equal portions, in the course of the four and twenty hours. Under this medicine alone she rapidly and completely recovered, regaining all her former spirits, and once more presenting the plumpness and bloom of perfect health.

It would be easy for us to adduce many more instances of a similar kind. These, we hope, will suffice to call attention to the important point we would enjoin upon our readers.

In the foregoing pages we have spoken of the influence of disorder of the digestive organs in producing derangement of the functions of the brain; and we need only further say, that we have found no means of correcting disturbance in the chylopoietic system, when it exists in these cases, as it does in a very great proportion of them, equal in efficacy to large doses of carbonate of soda. Notwithstand-

ing that we generally prescribe the carbonate of soda, we occasionally find the carbonate of potash to be not less efficacious; and when the disorder of the stomach is combined with amenorrhœa, dysmenorrhœa, or other morbid conditions of the female economy, we have sometimes substituted the carbonate of ammonia with very manifest advantage.

But the grand tonics, as we have before stated, are wholesome food and pure air. It would be out of place were we here to enter at any length upon the subject of dietetics. We will only say that, in chronic mental derangement, a certain portion of good plainly dressed animal food, poultry, or game, at least once a day, and a liberal allowance of the best wheaten bread, ought to form the main staple in the diet.

Experience has long shown that one of the most digestible and also the most nutritious kinds of animal food is good wether mutton of suitable age. Game of different species is also light and nutritious; tender venison sits easily on most stomachs; and the flesh of the partridge, among birds, we have remarked to agree extremely well with the delicately nurtured class of patients whom we have principally had under our care. Of so much consequence do we esteem wholesome and unadulterated bread, that we consider it necessary to recommend its being prepared on the premises, and of flour made from the first quality of wheat direct from the mill.

Light and well-hopped malt liquor we are always anxious to bring the stomach to bear; and in this we generally succeed. Generous old sherry and water, or port and water, is often borne better in the first instance. By regularity however, by enforcing exercise in the open air, and finding occupation within doors in which some degree of bodily motion is requisite, we generally observe that the stomach, from having been extremely weak or nearly overthrown, becomes less and less fastidious; and that aliment both of kinds and quantities which would have occasioned great derangement in the first instance, is eagerly enjoyed and readily digested at last.

There is probably no therapeutic measure of greater efficacy in the treatment of this disease than a due *regulation of temperature*. Attention to this is essentially requisite in the apartments occupied by the patients. To the state of febrile excitement that so generally marks the earlier stages of the disease succeeds one of collapse, in which the vital functions generally are certainly below the proper standard in point of intensity. Far from having increased powers of braving with impunity low grades of temperature, which is an occasional feature in the incipient stages of the disease, patients now suffer extreme inconvenience from exposure to cold: they require warm clothing when they go abroad, and only seem comfortable when they are surrounded within doors by an atmosphere of

comfortable warmth. A temperature of from 55° to 60° (Fahr.) will never be too high; and the apartments of a patient who is much reduced may often be advantageously kept several degrees higher.

Of course every contrivance for warming buildings devoted to the treatment of individuals labouring under this malady must, as in other cases, be combined with adequate means of ventilation.* The diffusion of heat by the circulation of hot water has been found extremely efficient and perfectly controllable in the chambers of the establishment which we professionally attend. A comfortable temperature is a much more powerful tonic than is generally supposed.

In conjunction with these means of strengthening the general system, and, through that, of imparting to the brain renewed ability to execute its functions properly, there is still one which is too important to be overlooked, yet is too obvious to require more than a mere allusion: this is the supply of *pure and mild fresh air*. The majority of mankind, it has been observed, build their dwellings in the valleys, and leave the heights to the warrior or freebooter. Exposed situations are unsuitable to invalids: a well-enclosed and sheltered country is infinitely

* Such as good cheerful fires, which are well known to induce a free current of air; and though we consider warmth must be more generally diffused to be essentially serviceable, still we think a fire requisite, not only for its beneficial character as to ventilation, but likewise for the cheerful aspect which it presents.

better adapted, and, we are satisfied, is highly conducive to advance and confirm convalescence in those who have been cerebrally affected.

Exercise is another essential means of maintaining and establishing the general health, the influence of which mankind as universally acknowledge as they seem almost uniformly to neglect acting upon their convictions. In the treatment of confirmed functional disturbance of the brain, we have no option, if desirous to obtain the greatest possible degree of success from every means combined, but to enforce an amount of muscular exertion every day commensurate with the strength and general bodily state of the individual affected. There is no more certain way than this of expending beneficially the nervous energy, which, left unused, would in all likelihood be diverted to the disordered cerebral fasciculi, and only serve to keep up their undue and irregular action. He who undergoes incessant bodily labour, is rendered less prone to exercise his mind; that is, he who expends the sum of exertion of which he is capable on his muscular powers, will have little or none left for his nervous system generally. This is then left comparatively quiescent; sound sleep is induced; and all parts of the brain are brought into the most favourable condition possible for the recovery of their primary and inherent power of healthy and harmonious action.

The kind and quantity of exercise most favourable to lead to this desirable consummation must

be carefully adapted to the respective cases. There is no better form of exercise than walking. Its amount, like a dose of medicine, must be regulated by its effect. It should in no case be carried to such an extent as to cause an increased velocity to the circulation, or to take away appetite; but such a degree of fatigue as is succeeded by a tranquil pulse, and a craving for food, within half an hour or an hour after returning home, is sure to be followed by deep sleep, and to have the most sanative influence upon the patient. It is needless to say how advantageously the senses may be exercised, and healthfully the dormant feelings excited, by observations on the natural objects and phenomena that present themselves in the course of a walk through grounds appropriately laid out, or a country agreeably diversified.

The gentle motions of a swing or of a well-hung carriage are sometimes all that can be borne at first. Carriage exercise is particularly beneficial; and physical treatment may generally be combined with the moral influence to be derived from directing the attention by excursions for any definite purpose, such as to see some interesting or beautiful spot, or to witness for a short period the bustle and constant changes occurring in the metropolis.

Amusements within doors that combine some degree of bodily exercise with the occupation they afford the mind are also decidedly advantageous.

We shall now add a few words upon a variety of

medicines employed as curative remedies in the treatment of cerebral derangement; though we do not profess to touch upon all the chemical agents in vogue, of the *modus agendi* of most of which we have very scanty information. Several of these have from time to time been proposed as something like specifics in the disease; and their success has, in many instances, been undeservedly extolled by those who first proposed them to professional notice.* None of them, however, have justified the encomiums bestowed upon them as remedies, or even as palliatives; although many are certainly adjuncts of sufficient importance to secure them a place in the materia medica for cerebral affections.

Mercury, from its specific and powerful influence in certain diseases, was naturally enough tried, at a very early period after its general introduction in to practice, as a remedy for this malady; and instances of its good effects are not wanting in the records of medical science. It has, however, failed so repeatedly in influencing functional derangement of the brain, that, save in one of its

* There is hardly a preparation in the foreign or English pharmacopœias that has not at one time or other been administered in this malady. We shall enumerate a few, though they are now generally admitted to be useless in a curative sense, and even prejudicial: —

The preparations of silver, lead, copper, tin, mercury, iron, zinc, antimony, arsenic, &c., viz.: hellebore, drastics, assafœtida, turpentine, ipecacuanha, valerian, castor, musk, æther, opium, stramonium, prussic acid, phosphorus, &c.

preparations (calomel, as a purgative), it is now rarely administered. When the disease is confirmed, we are inclined to believe that it may be entirely dispensed with in all the multifarious shapes into which it has been converted by chemical ingenuity. Those who receive patients mentally, or rather cerebrally, afflicted after having undergone previous treatment, will rarely have occasion to employ what are denominated very active remedies. The bodily system will, in the majority of instances, be found considerably below par, and to mercury generally may be ascribed some influence in effecting this change.

Digitalis is a medicine which has stood its ground better than mercury, although the pretended *specific* effects of this substance are now no longer advocated: it is a variety of narcotic that in some cases may be advantageously resorted to. Whenever there is unusual throbbing of the heart, and its undue pulsation is distinctly felt by the hand or the ear through the medium of the stethoscope, digitalis may very properly be tried, rather than any other narcotic; that is to say, in cases in which the practitioner sees no objection to the use of narcotics. The dose of this powerful medicine, to be beneficial, must be repeated until it affects the pulse; but care should be taken that it does not superinduce disorder of the stomach, destroy appetite, or cause vomiting or other symptoms of poisoning.

Opium (either in the crude state, or in any of its old officinal forms or preparations) had never been regarded as a medicine adapted to allay that peculiar cerebral state which is the concomitant of functional derangement. Still, like every thing else, it had its advocates, and its detracters; and the latter seemed fairly to have carried the day against the former, when the progress of modern chemistry, decompounding this invaluable drug, presented us with its soporific elements, independent of its other properties, and re-established it as an efficacious remedy in mental derangement.

It is to be feared that the indiscriminate use of the salts of morphia may bring them again into unmerited disrepute. The anticipations of those who, from early successes in a few instances, were led to expect most from the exhibition of these preparations, have already, as we have reason to know, been sorely disappointed by subsequent failures. From our own experience of the salts of morphia, we are induced to speak of them as *valuable*, but by no means as *specific*, medicines; and this not in all, but only in some forms of mental derangement, or rather in certain complications of general constitutional with particular cerebral disturbance. In the period of *incubation*, as it has been termed, — in that stage of morbid excitation that precedes the occurrence of very manifest disease, — at a time when causes recognised as adequate to produce mental derangement are at work

undermining the general health, and implicating the brain in this way rather than by exerting any peculiar deleterious influences on this organ itself, — the preparations of morphia, in conjunction with the other measures already indicated, are often prescribed with the happiest effect. But when the disease has gone beyond this first stage, — when the period of peculiar cerebral excitement has distinctly set in, — and the brain is the organ whose functions are especially implicated, we are inclined to believe that the preparations of morphia are prejudicial rather than otherwise. We have in no instance known the disease under these circumstances brought to a termination by their exhibition; and we have often seen the ultimate recovery of the patient retarded by the semi-paralytic state of the stomach and alimentary canal brought on by their continued use.

The more active stages of the disease being past, there is another period in its course when the preparations of morphia again become useful. This is when all inordinate vascular action has subsided, and the patient still continues irritable, agitated, and sleepless, and looks haggard in countenance or broken in strength for want of proper rest. Here the acetate of muriate of morphia in a full dose will often do great good, and is especially valuable; but in situations where other curative means are to be readily commanded—where all the appliances necessary to the most successful

treatment of mental derangement are to be found—we are satisfied that the preparations of morphia may generally be dispensed with.

Camphor is another medicine which, with a few, has enjoyed a certain degree of celebrity in the treatment of mental derangement; and as its action has been presumed to be somewhat analogous to that of narcotics in general, we mention it in this place: it is now but rarely prescribed, and is certainly an inefficient remedy.

Resort to galvanism and electricity may occasionally prove useful. Setons and issues, as adjuncts, may also sometimes be advisable.

Returning general health, as evidenced by increase of appetite, freshness of complexion, and fulness of body, is unquestionably the most constant and surest prelude to recovery, in so far as the mental manifestations are concerned. But when patients have been brought to this improved bodily state, and the mental faculties do not regain their primitive strength, or are only partially restored, and are disposed to remain still imperfect, or show an incurability of character,—in such instances we recommend the cautious administration of a solution of iodine, till a state of constitution is artificially produced analogous to that recognised as favourable to ultimate recovery, and which at the same time places the system in a position susceptible of benefit from other active measures; and we feel confident that the first steps made in the recovery

of several cases, which came under our care as supposed confirmed incurables, took place whilst the system was under the influence of this very valuable medicine. The preparation we have generally administered has been regulated by constitutional circumstances, commencing with small doses gradually increased, and its effects carefully watched meanwhile.

It should also be stated that attention, as a matter of course, must be directed, in the treatment, to any particular symptoms that may arise or have prevailed throughout, such as suppressed discharges, &c.

It is foreign to our purpose, in this short compendium, to enter at length upon the *moral* treatment of cerebral functional derangement. The subject, besides, has likewise been ably discussed by many intelligent writers, and certainly must be admitted to form an accompaniment of the utmost consequence; and that this coincides with our opinion, is evident through former observations. We shall therefore merely suggest a general hint on one principal feature, to which we trust scrupulous attention will be paid. The relatives and friends upon whom devolves the painful but requisite duty of entrusting the unfortunate object to suitable care, guided in their conduct, as they must be, by tender concern, and only actuated by the anxious motive of mitigating by every means this heavy calamity,

need scarcely be reminded of what great moment is a judicious selection of superintendents, and how instrumental may prove the choice, or otherwise, to a restoration of reason. The very nature of the disease implies the necessity of requiring that some guarantee should be afforded that the individuals are qualified for the charge which they undertake by lengthened practical experience, superadded to intellectual endowments and a well-cultivated understanding; that they are of a humane and sympathising disposition; that they possess a steady, firm, and well-regulated mind, combined with rightful energy of purpose, acuteness of observation, and a perfect self-control. This latter quality is really of more essential consequence than it may seem at first view; for those unable to subdue their own ebullitions of temper, are obviously unfitted to regulate the effects resulting from the morbid action of the mind in others. How well our late worthy pastoral poet and countryman, Crabbe, understood the baneful influence of passion, is so strikingly and beautifully told, that we are even tempted to give the verses to our readers: —

> "Oh, how the passions, insolent and strong,
> Bear our weak minds their rapid course along;
> Make us the madness of their will obey,
> Then die, and leave us to our grief a prey!"

The pleasure of doing good should be the paramount spring of action, conferring, as it does, its

own reward, proving an inexpressible source of inward satisfaction, calming the agitated breast, and inducing peaceful serenity of mind. By such leading motives should all be incited to perseverance in their excellent, albeit arduous, career of tending the wounded spirit, and ministering relief to the mind diseased; in which, when their efforts are crowned with success, sweet to the feelings must be the result — of itself an ample compensation. Those pursuing this branch of practice, who, notwithstanding the opprobrium often cast upon their labours by the frivolous and unfeeling, continue to devote their attention with earnestness of purpose and singleness of mind to the alleviation of this distressing malady, are obviously entitled to the best thanks and good wishes of the community.

In the full persuasion that the greatest advantage must accrue to society from a rational and successful treatment of this distressing malady, we cannot close our little volume without observing in all sincerity, that we do not despair of effecting a cure under any circumstances short of actual and decided organic change.* From feelings of delicacy alone have we abstained from adducing cases amply illustrative of the success of the principles of prac-

* Where there is no structural disorganisation, there is invariably much hope. Nature has beneficently bestowed upon mankind a specific for every ailment to which they are liable — though, be it understood, she leaves a discovery of such sanative powers to the discernment of man; — ergo, no disease is incurable.

tice that we recommend; as we have ever felt it to be our bounden duty to preserve inviolable secrecy in regard to the mental afflictions of the patients committed to our care — many of whom are now not only reinstated in their family circles, but have reassumed their position in society, of which, in many instances, by their talents and virtues, they have again become the ornaments.

THE END.

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