

## **A treatise on madness / By William Battie.**

### **Contributors**

Battie, William, 1704-1776.

### **Publication/Creation**

London : J. Whiston and B. White, 1758.

### **Persistent URL**

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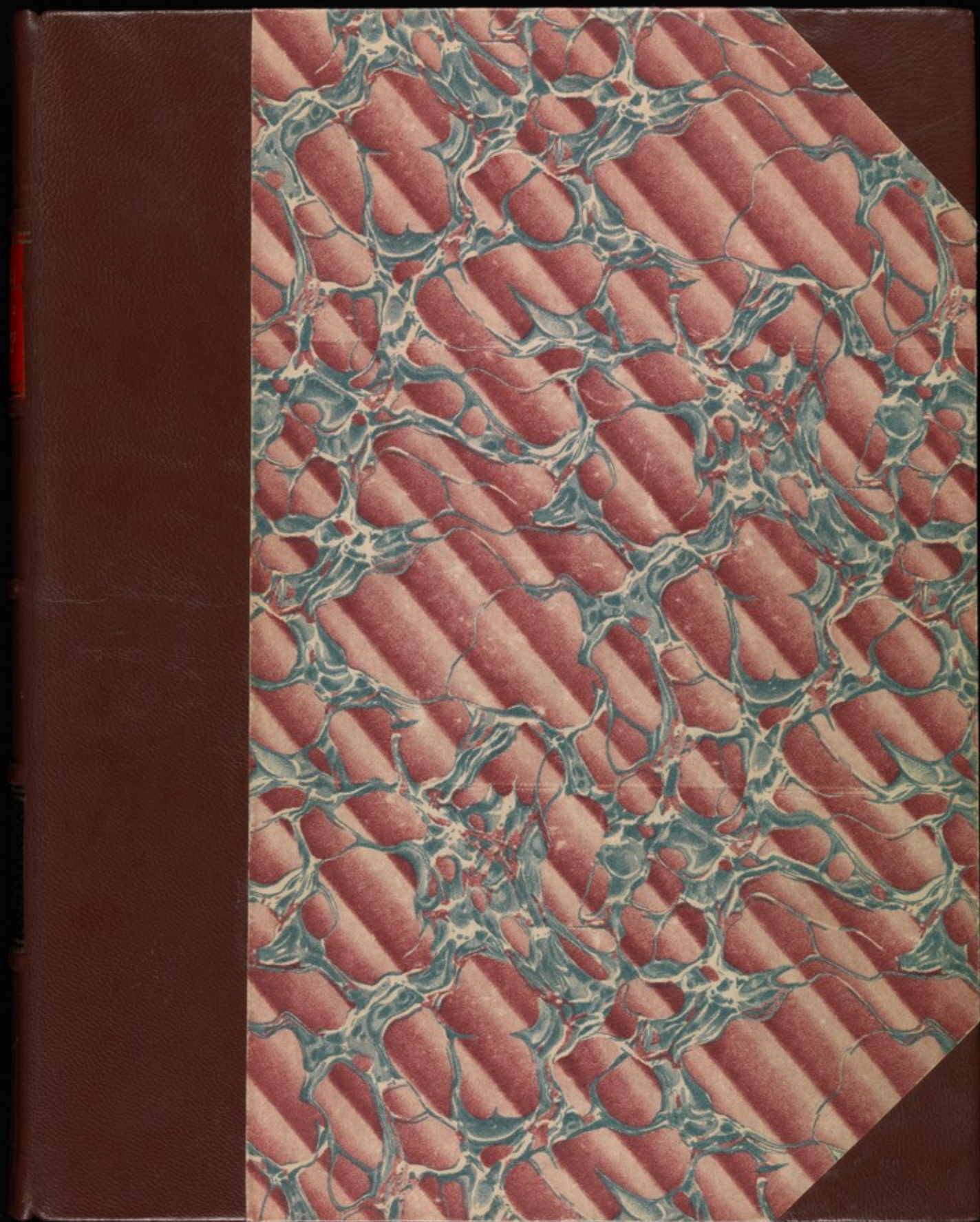
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T R E A T I S E  
O N  
M A D N E S S.

By WILLIAM BATTIE M. D.

Fellow of the College of Physicians in LONDON,

And Physician to St. Luke's Hospital.



L O N D O N :

Printed for J. WHISTON, and B. WHITE, in Fleet-street.

M,DCC,LVIII.

[Price Two Shillings and Six-Pence.]

THE ARTS

ON

MADNESS

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M. DCCCXXV.

[The two parts, and the whole]



TO  
THE MOST NOBLE  
G E O R G E,  
Earl of CARDIGAN,

President of ST. LUKE'S HOSPITAL,

THIS  
TREATISE ON MADNESS  
IS HUMBLY DEDICATED

BY  
HIS LORDSHIP'S  
DUTIFUL AND OBLIGED SERVANT

W. BATTIE.

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## ADVERTISEMENT.

**A**MONG the many good reasons offered to the Publick, for establishing another Hospital for the reception of Lunatics, one, and that not the least considerable, was *the introducing more Gentlemen of the Faculty to the Study and Practice of one of the most important branches of Physick.*

The attention of those worthy citizens of *London*, who first planned and promoted this charitable work, was carried beyond its more immediate object. Not content with giving relief to a few indigent persons of their own age or country they interested themselves in the care of posterity; and as far as they  
were



were able made a more ample and effectual provision for that help, which all Lunatics of whatever nation or quality must at all times stand most in need of.

Agreeably to this their extensive benevolence, they very soon by an unanimous vote signified their inclination of admitting young Physicians well recommended to visit with me in the Hospital, and freely to observe the treatment of the patients there confined.

A command so conformable to my own sentiments I not only most readily obeyed ; but, that I might answer their expectations in this as well as in every other particular to the utmost of my power, I moreover offered to the perusal of the Gentlemen who honoured me with their attendance the reasons of those prescriptions, which were submitted to their observation.

The



The end proposed in committing my thoughts to writing on this subject has induced me to publish. Those, for whose use these papers were originally designed, having encouraged me to hope that the same hints may be of service to other Students, who have not the same opportunity of seeing practice,



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*Lately Published,*

By JOHN WHISTON and BENJ. WHITE, in ONE VOLUME  
Quarto, Price 12s. Bound,

DE PRINCIPIIS ANIMALIBUS Exercitationes viginti quatuor in  
Theatro Collegii Medicorum Londinensium habitæ.

A GULIELMO BATTIE, M.D.

Collegii ejusdem Socio.

—Nunquam aliud Natura aliud Sapientia dicit.

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T R E A T I S E  
O N  
M A D N E S S.

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S E C T. I.

*The Definition of Madnefs.*

**M**ADNESS, though a terrible and at present a very frequent calamity, is perhaps as little understood as any that ever afflicted mankind. The names alone usually given to this disorder and its several species, viz. *Lunacy, Spleen, Melancholy, Hurry of the Spirits, &c.* may convince any one of the

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truth



truth of this assertion, without having recourse to the authors who have professedly treated on this subject.

Our defect of knowledge in this matter is, I am afraid, in a great measure owing to a defect of proper communication: and the difficulties attending the care of Lunatics have been at least perpetuated by their being entrusted to Empiricks, or at best to a few select Physicians, most of whom thought it adviseable to keep the cases as well as the patients to themselves. By which means it has unavoidably happened that in this instance experience, the parent of medical science, has profited little, and every Practitioner at his first engaging in the cure of Lunacy has had nothing but his own natural sense and sagacity to trust to; except what he may perchance have heard of Antimonial vomits, strong purges, and Hellebore, as specifically anti-maniacal: Which traditional knowledge however, if indiscriminately reduced to practice, a little experience will soon make him wish he had been an entire stranger to.

There is therefore reason to hope, that an attempt to discover the causes, effects, and cure of Madness, will meet with a favourable reception; since, whatever may be the event, the intention  
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is right; and it is some comfort to think that nothing of this nature, even though it should fall short of what is aimed at, can in its consequences be entirely useless. For the judicious reader will at least be hereby inclined to turn his thoughts to the same subject, and may even receive instruction from the miscarriages of such an undertaking.

But the peculiar misfortune just now mentioned, *viz.* want of proper communication, though the chief, is not the only hindrance to our knowledge: for Madness hath moreover shared the fate common to many other distempers of not being precisely defined. Inasmuch as not only several symptoms, which frequently and accidentally accompany it, have been taken into the account as constant, necessary, and essential; but also the supposed cause, which perhaps never existed or certainly never acted with such effect, has been implied in the very names usually given to this distemper. No wonder therefore is it, whilst several disorders, really independent of Madness and of one another, are thus blended together in our bewildered imagination, that a treatment, rationally indicated by any of those disorders, should be injudiciously directed against Madness itself, whether attended with such symptoms or not. Much less can we blame the Phy-



fician, who being prejudiced by the supposed cause couched in the name of the distemper he has to deal with at every new or full Moon attenuates, evacuates, or alters the peccant humours by medicines peculiarly adapted to the black or splendid Bile, &c.

In order therefore to avoid this mischievous confusion of sentiment as well as language, and that we may fix a clear and determinate meaning to the Word *Madness*; we must for some time at least quit the schools of Philosophy, and content ourselves with a vulgar apprehension of things; we must reject not only every supposed cause of Madness, but also every symptom which does not necessarily belong to it, and retain no one phenomenon but what is essential, that is without which the word *Madness* becomes nugatory and conveys no idea whatever: or, in other words, no definition of Madness can be safe, which does not, with regard at least to some particular symptoms, determine what it is not, as well as what it is.

First then, though too great and too lively a perception of objects that really exist creates an uneasiness not felt by the generality of men, and therefore discovers a præternatural state in the instruments of Sensation, and tho' such uneasiness frequently accompanies Madness, and is therefore



fore sometimes mistaken for it; nevertheless Anxiety is no more essentially annexed to Madness, so as to make part of our complex idea, than Fever, Head-ach, Gout, or Leprosy. Witness the many instances of happy Mad-men, who are perfectly easy under what is esteemed by every one but themselves the greatest misfortune human nature is liable to.

Secondly, though too little and too languid a perception of things that really exist and are obtruded with force sufficient to excite sensation in the generality of men, discovers as præternatural a state or disorder in the instruments of Sensation as uncommon Anxiety, and tho' it sometimes attends Madness, and is likewise mistaken for it, especially by the *French* who call Mad-men and Fools by the same name; nevertheless such defect of Sensation is no more essentially annexed to Madness than the former symptom of Anxiety, which that very frequent symptom of Madness sufficiently proves.

But--*qui species alias veris capiet, commotus habebitur* --- And this by all mankind as well as the Physician: no one ever doubting whether the perception of objects not really existing or not really corresponding to the senses be a certain sign of Madness. Therefore *deluded imagination*,  
which



which is not only an indisputable but an essential character of Madness, (that is without which, all accidental symptoms being removed from our thoughts, we have no idea whatever remaining annexed to that sound) precisely discriminates this from all other animal disorders: or that man and that man alone is properly mad, who is fully and unalterably persuaded of the Existence or of the appearance of any thing, which either does not exist or does not actually appear to him, and who behaves according to such erroneous persuasion.

Madness, or false perception, being then a præternatural state or disorder of Sensation; before we attempt to discover its causes effects and cure, it will be necessary for us to investigate the seat the causes and the effects of natural Sensation. For the consideration of the abuse or fault of any thing necessarily brings that very thing into comparison with what it was when sound and perfect; and 'tis impossible for us rationally to amend or restore what never was the object of our thoughts.

Be it therefore our first endeavour to contemplate natural Sensation: if haply this most distinguishing property of animal life may supply us with actual and positive knowledge of some mat-  
ters



ters that relate to the present subject ; or at least may point out to us what it is that herein surpasses our imperfect understandings. A science negative indeed, and by no means so satisfactory to the pride and speculative curiosity of man as the former, but very often as useful and as conducive to the attaining practical truth.



SECT.

## S E C T. II.

*The Seat of natural Sensation.*

**W**Hoever is conscious that he hears, sees, or feels, and beholds all animals he is conversant with acting just in the same manner as he does when he hears, sees, or feels, must acknowledge that his own and every other animal body is as really endued with Sensation as that it exists.

Whoever attentively contemplates in what manner he and every other animal is affected by external impulse, must acknowledge that some parts of the same body, however animated, are quite insensible, some endued with a less degree of Sensation than others.

Whoever is moreover sufficiently versed in Anatomical researches, and has learnt to separate those parts of an animal body, which, however contiguous or closely connected, are nevertheless really distinct from each other, very readily discovers several soft fibres, each of which is actually divisible into many smaller of the same kind, as far as his eye can trace; and he by analogy justly concludes that each of those smaller fibres  
is



is as capable of being still farther and farther divided beyond the reach of vision, and even of human imagination.

These soft fibres are all connected with the contents of the cranium, and in different parts of the body they are collected into fasciculi; every one of which is enveloped by a continuation of those very membranes which within the cranium contain the substance of the brain and its medullary appendages.

Every such fasciculus as well as the several fibres it is resolveable into is called *a Nerve*: a name borrowed indeed from the ancients, but used by them in a very different signification. For by *νεῦρον* and *nervus* neither the *Greeks* nor *Latins* meant any thing soft and medullary, but on the contrary the hard and elastic substance of a tendon or ligament; as the word *ἀπὸ νεύρου*, still retained by the moderns to signify the fascia or membrane expanded over and connecting the muscular fibres, sufficiently shews.

Every nerve, which is within the reach of our observation, is extended between the *medulla oblongata* or its appendage the *medulla spinalis* and the place of such nerve's destination. But every such nerve is thus extended in a man-



ner very different from the disposition of the blood-vessels, and indeed of all other portions of the same body which are called similar. For in its passage it neither is split into ramifications, nor is it at all connected with any contiguous parts of the body, except with some substances equally nervous called ganglions chiefly observable in the mesentery.

If a nerve in a living body be distracted by external force, there immediately arises an exquisite sensation called pain. Which sensation is always in a direct proportion to the quantity of such distracting force; and which never ceases either untill the distracting force is removed or is become unactive, or untill the material particles which constitute the said nerve are by this distraction irrecoverably disunited.

If to a nerve in a living body be applied any acrimonious objects, that is such portions of matter whose surfaces are full of angles, and which when assisted with proper impulse are therefore capable of distracting the particles that constitute the nervous substance, there immediately arises the same painful sensation: which is always in a direct proportion to the quantity and acuteness of such acrimonious angles, and to the impulse with which they are impacted, and which continues



tinues as long as in the former case of visible distraction occasioned by external force.

Those parts of an animal body, in which the greatest quantity of nervous fibres is manifestly contained, and in which such nervous fibres lie the most exposed and undefended by any other matter that constitutes the same body, are the soonest and the most affected whenever any external objects are applied with force sufficient to excite sensation.

Those membranes, which not only within the cranium surround the brain, but which also serve as sheaths to the several appendages of the brain, collecting them into nervous fasciculi all over the body as far as the eye can trace, are indeed every where contiguous to and seem intimately connected with the medullary substance they contain: nevertheless upon the application of any external objects they all discover no extraordinary signs of sensibility, any more than several other membranes in the same body, which are equally vascular and elastic. Witness the many well attested cases of erosions and other accidents of the dura mater unattended with any degree of pain.

All which constant and uncontroverted observations prove, 1. That the nervous or medullary substance derived from or rather communicating with the brain is the seat or instrument of natural Sensation: 2. That no other matter whatever, whether animated or not, is such seat or instrument.



SECT.



## S E C T. III.

*The supposed Causes of natural Sensation.*

**T**HAT the medullary or nervous substance continued from or rather connected with the brain is the seat of Sensation, is a point now so universally agreed upon, that perhaps it might have been sufficient barely to have asserted it without any formal proof. Happy should we be, if the causes of Sensation were as clearly and incontestably settled.

But I am afraid before any right or satisfactory notion can be formed concerning this matter, we must get rid of some opinions, which however absurd have of late passed upon many for real knowledge.

The reason of this difference, which at present subsists between the discovery of the seat, and the discovery of the causes of Sensation, is not in the things themselves that have been enquired after, but in the manner of enquiry. Because in fixing the seat of Sensation we have been content with facts that are apparent to all men, and which if any one should controvert, he must disclaim the evidence of his own senses:

But



But in assigning the causes of Sensation several things have been assumed as matters of fact, which have never been discovered, and which may at least with equal probability be denied as admitted.

For here the Hypothetical Genius, forgetful that he hath Nature's works for his contemplation, and despising that poor pittance of knowledge which the real appearance of things supplies every one with as well as himself, hath dared without any warrant to coin new ideas; hath made free with air, water, æther, nay even electrical fire; and imagining that to be probable which is barely possible, and then heightening this assumed probability up to matter of fact, he takes one large stride more and roundly asserts that *the brain is a gland; that its cortical portion is a convolution of secretory vessels designed to separate from the blood one or other of those elementary substances, which he hath by ways unknown introduced into the carotid arteries for this his present purpose; that the medullary portion of the brain and nerves is nothing else but a collection of excretory ducts serving to convey this elementary matter to all the sensible parts of the body: which matter either by undulation or retrograde motion imparts to the Sensorium commune all those impulses it receives from such external objects as* affect



*affect the extremities of the nervous filaments.*  
 This excrement therefore of the brain tho' invifible is the neceffary caufe of fight, tho' impalpable the fufficient caufe of feeling, and tho' an animal Spirit the material caufe of animal Senfation.

Now, as the fecretion of fuch a nervous fluid and confequently its very exiftence depends entirely upon the analogy that is fupposed to lie between the brain and every glandular fubftance, in cafe the brain is very unlike a gland in any material circumftance, this whole machinery is immediately deftroyed.

Admitting therefore, what has never yet been proved, that the cortical portion of the brain refembles the fecretory organ of a gland, yet the medullary or nervous fubftance is different from all excretory ducts whatever: inafmuch as no excretory duct is ever found but what is immediately detached from the gland whence it iffues; whereas on the contrary the fupposed glandular or fecretory fubftance of the brain is continued to every part fupplied with nerves, and thefe nerves the fupposed excretory ducts, after that they have left the cranium and their glandular origin the brain, wherever they are capable of being examined, remain as clofely connected  
 not



not only with the cortical or secretory portion of the brain, but even with the productions of the dura and pia mater, as the medullary substance itself whilst contained within the cranium.

This observation alone would be sufficient to destroy the very foundation of a nervous fluid, if any Hypothesis whatever could deserve a serious consideration. But it may be feared that a solemn confutation of chimæras will appear equally ridiculous as an attempt to establish them; and he may perhaps incur the suspicion of insanity which these theorists have deserved, who shall fight in earnest with shadows, and mispend his time in offering reasons, why the solid constituent parts of the medullary substance contained in every nerve bid fairer for supplying us with the material cause of Sensation, than a fluid never yet discovered, and which its very authors confess was once foreign to the body, and even extracted from dead and putrescent matter spirited up, we know not how, into animality.

Let us therefore quit this enchanted ground to those, if such there be, who are still inclined to dispute upon it; and in order to clear our way a little more to the real causes of Sensation, let us divert our attention to a very common phrase, *viz. weakness of nerves*, which tho' not professedly



feffedly systematical, like the former scheme of *animal spirits*, is nevertheless extremely delusive; inasmuch as it seems indirectly to offer another solution of the phenomenon in question, and to ascertain the cause of Sensation.

For since the word *weakness*, when joined with material substances, can convey no idea but a lax cohæsion of such particles as constitute those substances; therefore the phrase *weakness of nerves*, which denotes a morbid excess of Sensation, seems to imply that Sensation itself is owing to the loose cohæsion of those material particles which constitute the nervous substance, inasmuch as the quantity of every effect must be proportionable to its cause.

By this inaccurate manner of talking, the most distinguishing property of animal nature is in danger of being blended with inanimate matter. For, if the case really were what these words seem to import, all bodies whose particles do not cohære with too great a degree of proximity would be nervous, that is endued with Sensation. But, since no portion of matter, however loosely compacted, is nervous except it is part of an animal body, therefore the medullary substance of a nerve is endued with Sensation not because its constituent particles are loosely united:

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and



and every nervous filament, tho' it consists of parts extended and not too closely cohæring, is confessedly as distinct from every other material substance consisting of parts extended and equally cohæring, as a man from a carcas, or an horse from an equestrian statue.



SECT.



## S E C T. IV.

*The real Causes of natural Sensation.*

**S**ENSATION, however perplexed it may seem to those who too curiously enquire into its nature, is to the modest observer as clear in idea and as fully to be accounted for, at least to all useful intents and purposes, as any phænomenon whatever.

For is not what we feel a plain matter of fact, of which we are not only certain and conscious ourselves, but which we are likewise capable of communicating to others by words or signs? And are we not perfectly well acquainted with many things, which when impelled with force sufficient will make us feel; and which it is frequently in our power to apply, remove, or avoid, as best suits our interest?

It is the heedless or rather the wilful neglect of precisely separating these many evident and external causes of Sensation as well from their unknown and internal operations as from their intermediate and equally unknown effects, that has created such difficulties in contemplating this phænomenon.



For the mutual cohæſion of material particles, as eſſential to our idea of an animal body as ſenſe itſelf, but not better accounted for, hath however been looked upon as a thing much leſs myſterious.

Which ſeeming diverſity can be owing to nothing elſe, but becauſe the generality of mankind have contented themſelves with the uſeful and the attainable knowledge of ſuch external objects, as will harden or ſoften thoſe bodies they are applied to, without enquiring too nicely why the conſtituent particles of thoſe bodies are more or leſs united upon ſuch application, or indeed why they are united at all: whereas the philoſopher in his contemplation of ſenſible matter is not content with knowing certainly like other men what objects externally applied to a nerve will create, increaſe, or deaden ſenſation, but moreover conjectures why; and attempts by any means whatever to aſſign the manner in which theſe external objects act upon, and the changes they produce in the nervous ſubſtance previous to ſenſation their laſt effect; which effect, for reaſons beſt known to himſelf, ſeems to demand a more explicit ſolution than the cohæſion of material particles.

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In endeavouring therefore to assign the causes of Sensation, be it one of our chiefest cares to distinguish them from one another as effectually in our mind, as they are really different in their nature, and to separate what we actually and usefully know from what we are, and perhaps shall always be without any great damage, entirely ignorant of.

For which purpose, it may not be amiss to premise a few considerations on causes in general; which will illustrate the subject of our present enquiry and at the same time be confirmed thereby.

First then, by observing that any one phenomenon frequently follows another, we conclude that the second is owing to the first; and hence we get the ideas of *cause* and *effect*.

Secondly, by observing that any one phenomenon never fails to follow another, we conclude that the first is not only a cause but also a sufficient cause of the second.

Thirdly, by observing that the second phenomenon never occurs but in consequence of the first, we further conclude that the first is not only



only a cause but a necessary cause of the second, which is therefore called the *causa sine qua non*.

Fourthly, by observing that the second phenomenon follows the first without either the evident or the demonstrated intervention of any other phenomenon as necessary or at least accessory to its existence, we conclude that the first phenomenon is moreover the immediate cause of the second.

Fifthly, by observing either that the first phenomenon is not always succeeded by the second, or that the second is not always preceded by the first, we conclude that the first phenomenon is either not a sufficient or not a necessary, but merely an accidental cause of the second.

Sixthly, by observing or by admitting as undeniable that any one or more phenomena intervene between the first and the last in question, we plainly discover that the first is remote, and that the several other intervening phenomena in their order approach nearer and nearer to the immediate cause.

Seventhly, a very little reflection upon causes and effects as thus stated will make us conclude that the remote and accidental causes of any effect



effect may be many, but that the sufficient and necessary as well as the immediate cause can be but one. Since either of two causes supposed sufficient will render the other unnecessary; and either cause supposed necessary will render the other insufficient. Which unavoidable conclusion, by the way, might be extended beyond secondary agents or instruments, improperly called causes, and would give an additional proof, if any was wanting, to the unity of the first, the necessary, the sufficient, and indeed strictly speaking the sole cause of all things.

Thus, to instance in our present subject; sight, hearing, taste, smell, &c. which frequently succeed the application of external objects, are looked upon by us as the effects of such external objects; and we in common discourse refer our ideas back to those objects as to their causes, as when we say *we see the sun, we hear the drum, &c.*

But, forasmuch as the external objects of sense, however forcible their application may be, do not always and in all animal bodies create sight, &c. And moreover, as the very same perceptions do sometimes, at least in disordered subjects, arise without any external object that really affects them; it is impossible but every such external object must be merely accidental, and by no means



means the sufficient or the necessary cause of such its nervous effect : Which sufficient and necessary cause is therefore internal, that is it in-  
hæres in the very frame and constitution of the nervous substance itself ; whereby alone such substance is rendered capable of being affected by any external object so as to create Sensation ; and without which internal cause no thing whatever would actually become an object of our senses.

For the same reason all such external causes are not only accidental but likewise remote. Since the necessary and sufficient cause at least must intervene ; and besides, before an external object can create any sensation whatever, it must produce several intermediate effects, *viz.* motion, impulse, and pressure : all which precede not only sight, &c. thereby excited, but also precede that particular internal affection of the nerve itself, whatever it is, which is the immediate, the necessary, and the sufficient cause of such perception.

The accidental and remote causes of Sensation, as also their intermediate effects, provided such effects are external to the nervous substance, very readily discover themselves, and are clearly comprehended. For indeed they are all  
bodies



bodies that lye within our observation (many of which are within our reach) and the motion and impulse of those bodies, or of particles emitted therefrom, upon the organs of sense : which every one not only has a clear idea of, but is moreover certain of their existence, motion, and impulse.

Now, as no body whatever can be capable of creating Sensation in consequence of its motion and impulse, without pressing upon the nerve affected by such impulse ; therefore pressure of the medullary substance contained in the nervous filaments approaches nearer in order to the immediate cause of Sensation, than the motion and impulse of any external object.

Pressure of the medullary substance contained in the nervous filaments cannot indeed be imagined without some alteration in the former arrangement of those material particles which constitute that substance. But we have no idea whatever, either visible or intellectual, how and in what manner those particles are by such pressure differently juxtaposited, previously to Sensation thereby excited.

Whence it undeniably follows that pressure upon the medullary substance contained in the

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nervous filaments is the last in order of all those causes of Sensation, which we have any idea of. Thus far and no farther our knowledge in these matters reaches, limited by the outside of the seat of Sensation; what passes within being meer conjecture. For if a new position of medullary particles, which is an immediate and unavoidable effect of external pressure, does not discover itself any more than their constitutional arrangement; what account can we with any the least degree of modesty pretend to give of all the alterations in the nervous substance still subsequent to such pressure and to change of place thereby occasioned; a regular series of which may, for any thing we know to the contrary, precede the immediate cause of sensation.





## S E C T. V.

*The salutary Effects of natural Sensation.*

**S**ENSATION is always accompanied with some degree of pleasure or uneasiness; no animal being indifferent to what he sees, hears, or feels. These additional and in some degree inseparable affections demonstrate the direct tendency of Sensation to the preservation of life; inasmuch as every one spontaneously flies from those objects which hurt and are at enmity with him, and covets such as create satisfaction and are suitable to his interest.

But, tho' no one at first sight would doubt whether the perception of pleasure is agreeable to his nature, and conducive to its preservation; it may with great reason be doubted by those who reflect a little whether such perception, however convenient it may seem to animal life, is alone instrumental in its preservation, and without the intervention of the contrary affection ever conduces to health.

For uneasiness is so interwoven in the very frame of mortals, that even the greatest present



fatisfaction implies the removing or stifling the greatest uneasiness which before disquieted, And a sense of future pleasure, as it excites desire, in that very desire implies a present uneasiness adequate to the supposed enjoyment of the pleasure in expectation. By which present uneasiness, according to Mr. *Locke's* just observation, the will is determined.

However paradoxical therefore it may seem, nothing is more true than that Anxiety, a real evil, is nevertheless productive of real good; and, tho' seemingly disagreeable to Nature, is absolutely necessary to our preservation, in such a manner, that without its severe but useful admonitions the several species of animals would speedily be destroyed.

For first, are not hunger and thirst very salutary Anxieties? By which the nerves of the mouth œsophagus and stomach excite all animals from the first moment of their birth to seize on such objects, as are capable of relieving those natural and healthy but agonizing sensations.

Now the real good produced by the gratification of these appetites is by no means to be placed in their present gratification alone. Whatever he may imagine, who being ignorant of the  
animal



animal œconomy looks no farther than the actual pleasure which accompanies the stifling such sensations. For the end herein proposed by the Author of Nature is undoubtedly the refectiion of that very body which hungers and thirsts; whose constituent particles by the inevitable effects of vital action are in a continual flux and decay; whereas the efficient or coercive causes of eating and drinking are those sensations alone, which torment every animal to a very good purpose. Who perhaps would not otherwise give himself the trouble of opening his mouth, much less by hard labour earn food wherewith to fill it; even tho' he should be assured that the loss of meat and drink to-day, tho' not at all inconvenient to him at present, will be sensibly felt to-morrow by his distempered body, and that his idleness and fasting will be soon attended by fatal consequences.

Secondly, the introducing fresh air into the lungs being as necessary for the immediate continuance of life, as it is for other purposes of the animal œconomy which are more remote, and at present unknown; therefore every animal provided with organs of respiration, whether awake or sleeping, draws into his breast and expels a quantity of external air sufficient to distend them from the first moment of his birth  
till



till the last period of life. Which alternate action, if he either carelessly or obstinately omits it, he is very soon compelled to perform by that inexpressible Anxiety which attends a long detention of air once admitted as well as the refusing admission to any air at all.

Thirdly, forasmuch as voluntary exercise of the body is no less requisite to the due circulation and secretions of the animal fluids, and the salutary consequences thereon depending, than the propulsive action of the heart and the refilling of the arterial tubes; which the ill effects of a sedentary life sufficiently prove; therefore the uneasy sensation that is always occasioned by satiety and the wearisome condition of idleness determine all animals, to whom activity is thus necessary, frequently to alter their place of residence, and to remove from those objects they have long been conversant with, however pleasing and eagerly sought for they might once have been.

Fourthly, all the afore-mentioned instances of uneasy sensation, however nearly allied to and often ending in sickness, are nevertheless the natural effects of perfect health. But besides these there occur several other anxieties, which are the unavoidable effects of real sickness  
and



and moreover frequently determine the will of the patient to such things as are capable either of relieving the present disorder or of preventing its mischievous consequences. Thus, to instance in one particular, feaverish heat threatens putrid obstructions, and at the same time occasions intense thirst and an almost insatiable craving for acidulated water. Which desire, if not contradicted by the officious and ill-tim'd care of the by-standers, procures a remedy that is both diluting and antiseptic.

Lastly, tho' the nervous energy be neither absolutely necessary nor alone sufficient to excite muscular action, yet such is the connection between the nervous and muscular fibres, however really distinct from each other, that animal sensation often instantaneously precedes animal action, so as to have confounded these two qualities, or at least to have made the one appear the immediate and only cause of the other. And, what chiefly deserves our notice whilst we are considering the salutary effects of Sensation, Convulsion itself, a distempered excess of animal motion, which is a frequent effect of uneasy Sensation, sometimes becomes its sudden and efficacious remedy, by removing the material cause of such uneasy Sensation, and that without  
any



any determination or interposition of the will  
whatever.

All which nervous appetites as well as muscular motions, that either preserve or restore health, and are seemingly excited by somewhat rationally forecasting their salutary ends, have given rise, I suppose, to some modern metaphorical expressions, *viz.* *Nature*, and the *Anima* invented by *Willis* and deified by *Stahl*. Which figurative words, tho' not quite philosophical, are innocent and even useful, in case they are applied only to avoid periphrases in relating medical matters of fact. But young Practitioners, who are often told that they are to imitate and assist Nature, must take great care not to be misguided by the literal sense of words, or fancy any thing like personal consciousness and intellectual agency in the animal œconomy. For in such case of misapprehension these and the like expressions become as absurd as all the exploded *Faculties of the Ancients*, and, what is much worse, may be as mischievous as an instrument of death in the hands of a Madman.

SECT.



## S E C T. VI.

*The Causes and Effects of Anxiety and Insensibility, two species of Sensation disordered tho' not delusive.*

HAVING contemplated the seat causes and effects of natural and true Sensation; before we proceed to consider delusive Sensation, the only subject of this enquiry, it may be not improper to take some notice of those two other disorders of the same quality, which were excluded from our definition of Madness, *viz.* præternatural *Anxiety* or Sensation too greatly excited by real objects, and its contrary *Insensibility* or Sensation not sufficiently excited by real objects, tho' acting with their usual force and tho' capable of engaging the attention of all other healthy animals of the same species.

For, although Madness in its proper sense be clearly distinct from the too lively or the too languid perception of things really existing, it however very often is preceded by or accompanied with the first and as often terminates in the second of these two disorders. Besides the being too much affected by external impulse, tho' it

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does



does by no means imply Sensation materially delusive, inasmuch as the ideas excited by such impulse are referred to true and corresponding objects; yet the quantity of concomitant affection not being proportionate and therefore not in all respects corresponding to the natural quantity of its real cause hath apparently some deviation from absolute truth, and from the natural and usual circumstances of this animal function. And Sensation not proportionate to real impulse, tho' it is not strictly speaking delusive, hath however as great a deviation from absolute truth as excessive Sensation itself.

Now Sensation, which in its most natural and perfect state is sooner or later attended with some degree of uneasiness, may with very little addition be heightened into Anxiety either by the too great or too long continued force of external objects, or by the illconditioned state of the nerve itself, whereby it is rendered liable to be too much affected with the usual action of such external objects.

This illconditioned state of the nerve may be inherent in the internal proper and unknown constitution of the medullary substance, or it may be external to that substance, and arise from the loss or defect of those membranes which envelope



velope and sheathe the seat of Sensation, and are designed to protect it from such rude attacks and impressions as might otherwise endanger the dissolution of so soft a matter,

For, whenever those integuments are quite removed from a nerve which is endued with no more than a common share of sensibility, Anxiety must ensue the application of any external objects that are capable of exciting natural Sensation. And in fact we find that the laying bare any sensible part and exposing it to the common air, which usually refreshes the body whilst cloathed with skin, immediately distracts us with intolerable torment.

For the same reason Anxiety, which follows an entire removal of the nervous sheaths, will in some degree arise whenever those sheaths are not strong and sufficiently compacted so as to answer the purpose of defence. That is the sensation of the nervous or medullary fibres, tho' they continue the same, will be in a reverse proportion to the cohesion of those minute particles which constitute the solid and elastic fibres. And in fact we find that Anxiety is almost always the consequence of morbid laxity, except where the intervention of fat, lymph, or viscid congestions



owing to such laxity substitute an occasional defence.

No wonder is it then that the straining or loosening the solid parts of human bodies should frequently render those bodies liable to be violently affected by such objects as are scarce felt or attended to by other men, who enjoy a natural or artificial strength and compactness of fibres.

And from hence we are enabled to annex a true and intelligible meaning to that expression before taken notice of, *viz. weakness of nerves*. Which word *weakness* would not have been so improper, if it had been joined in idea not to that substance which is strictly nervous, but to its integuments and contiguous membranes; and if laxity, an accidental and remote cause of excessive and therefore uneasy Sensation, had not been thereby made liable to be mistaken for its immediate necessary and sufficient cause.

Whatever may be the cause of Anxiety, it chiefly discovers itself by that agonising impatience observable in some men of black *November* days, of easterly winds, of heat, cold, damps, &c. Which real misery of theirs is sometimes derided by duller mortals as a whimsical affectation.

And



And of the same nature are the perpetual tempests of love, hatred, and other turbulent passions provoked by nothing or at most by very trifles. In which state of habitual diseases many drag on their wretched lives; whilst others, unequal to evils of which they see no remedy but death, rashly resolve to end them at any rate. Which very frequent cases of suicide, though generally ascribed to Lunacy by the verdict of a good-natured Jury, except where the deceased hath not left assets, are no more entitled to the benefit of passing for pardonable acts of madness, than he who deliberately has killed the man he hated deserves to be acquitted as not knowing what he did.

Among the morbid effects of Anxiety or the præternatural excess of Sensation one, which frequently attends upon it and more particularly demands our attention, is Spasm or the præternatural excess of muscular action. Which state of morbid motion, tho' sometimes salutary as has been before observed, is oftner occasioned by this nervous disorder to no good purpose whatever; and, when very violent or of long continuance, is necessarily productive of numberless evils and of acute and chronical distempers, which if not relieved in time almost always end in death.

Another



Another effect of Anxiety or of the præternatural excess of Sensation is the nervous disorder directly contrary to it, *viz.* Insensibility, that is a præternatural defect or total loss of Sensation.

Whether this entire change from one extream to the other is owing to the material instruments of Sensation having been strained by Anxiety or rather by some of its causes, cannot perhaps be determined with any degree of certainty. But thus much is clear in reason that any distraction, which is sufficient to disunite or break in pieces the medullary substance, must be sufficient to make it unfit for its function; and it is as undeniable in fact that Anxiety is frequently either attended with such spasmodic disorders or occasioned by such external injuries as must necessarily distract the nerves thereby affected.

Not that Insensibility is owing to no other cause except Anxiety. For it is at least as often occasioned by the internal and unknown constitution of the nervous or medullary substance itself, which was either formed imperfect at first or hath since degenerated.

And



And, besides the internal and unknown defect in the seat of Sensation, Insensibility may as often be ascribed to another cause external to the nerve and sufficiently understood. For, since the nervous integuments or neighbouring membranes do sheathe the medullary substance, and thereby prevent the morbid excess of its energy; whenever the fibres that compose those integuments or membranes are præternaturally compacted and of too close a texture, instead of moderating they undoubtedly must deaden or destroy Sensation. And for the same reason those nerves that are pillowed with fat, soaked in lymph, or stifled by obstructed vessels, cannot and in fact do not receive a proper that is a sensible impulse from external objects, altho' such objects are rightly and forcibly applied, and although the nervous substance itself is perfectly sound, and in its internal constitution fitted for the efficacious reception of such external impulse.

But, whatever may be the cause of Insensibility, its ill effects are many and as obvious as they are unavoidable, and need not be here enumerated. For they are all those disorders in the animal œconomy, which Sensation in its natural vigour was designed to prevent. The  
defect



defect therefore or loss of this salutary and vital quality must either hurry on or suffer the sickly body to approach nearer and nearer to the last period of animal life.



SECT.



## S E C T. VII.

*The Causes of Madness.*

**W**Hoever is satisfied with our account of the seat and causes of natural and true Sensation, will acknowledge that the one immediate necessary and sufficient cause of the præternatural and false perception of objects, which either do not exist, or which do not in this instance excite such sensation, must be some disorder of that substance which is medullary and strictly nervous. And moreover, as he cannot discover the natural and internal constitution of this medullary substance, which renders it fit for the proper perception of real and external impulse or rather of the ideas thereby excited; he must for the same reason own that he is unable to discover wherein consists that præternatural and internal state of the same nervous matter, which disposes it to be without any such impulse affected by those very ideas, that would have been presented to the imagination, if the same nervous matter had been acted upon by something external. Or, to speak more technically, forasmuch as the one immediate necessary and sufficient cause of the perception of real objects

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is



is unknown, we must likewise remain entirely ignorant of the one immediate necessary and sufficient cause of the perception of Chimæras, which exist no where except in the brain of a Madman.

But, altho' the immediate and internal cause of delusive as well as of true Sensation is absolutely hid, many remoter and external causes thereof frequently discover themselves to the by-stander, notwithstanding that the idea thus excited is not by the patient himself referred to any one of those true causes, but to something else, which may or may not exist, and which certainly does not in this particular case act upon the affected organ.

Thus, to instance in a very common accident, the eye that is violently struck immediately sees flames flash before it; which idea of fire presented to the imagination plainly shews that those material particles which constitute the medullary substance of the optic nerve are affected by such blow exactly in the same manner, as they are when real fire acts upon the eye of a man awake and in his senses with force sufficient to provoke his attention. Thus variety of sounds disturb the ear that is shocked by the pulsation of vessels, by the inflammation or other obstruction



obstruction of those membranes which line the *meatus auditorius*, by the intrusion of water, and in short by any material force external to the medullary portion of the seventh pair of nerves; which force hath no connection with any sonorous body, that by its elastic vibration communicates an undulatory motion to the intermediate air.

Now suppose that any one perfectly awake without the accident of such a blow sees fire, or without the pulsation of vessels, inflammation, or any obstruction in the *meatus auditorius*, &c. hears sounds; or suppose that the idea of flame really excited by a blow is by him referred to an house on fire, or the idea of sound excited by the pulsation of vessels, &c. is referred to a musical instrument, which is not near enough to be heard, or is not really played upon; the man who is so mistaken, and who cannot be set right either upon his own recollection or the information of those about him, is in the apprehension of all sober persons a Lunatic.

From whence we may collect that Madnefs with respect to its cause is distinguishable into two species. The first is solely owing to an internal disorder of the nervous substance: the second is likewise owing to the same nervous substance be-



ing indeed in like manner disordered, but disordered *ab extra*; and therefore is chiefly to be attributed to some remote and accidental cause. The first species, until a better name can be found, may be called *Original*, the second may be called *Consequential Madness*.

The internal disorder of the medullary substance, or the cause of Original Madness, for the same reason as the immediate necessary and sufficient cause of true Sensation, can be but one: but the external and accidental causes of Consequential Madness, as well as of true Sensation, may be many.

Now no external cause whatever can be supposed capable of exciting delusive any more than true perception, except such cause acts materially upon the nerve thereby disordered, and that with force sufficient to alter the former arrangement of its medullary particles. Which force necessarily implies impulse and pressure in delusive Sensation, in the same manner and order as it does in the perception of objects really corresponding thereto.

Pressure therefore amongst all the external and discoverable causes of false as well as of true perception is in our apprehension the nearest to such its apparent effect. As to the intermediate alterations



terations of the medullary substance, that may really precede delusive Sensation, they are all as much unknown as are the nervous effects which intervene between the pressure made by any external object and the true and adequate idea of that very object.

But, altho' Consequential Madness cannot be supposed without some sort and degree of pressure upon the nerves, nevertheless every sort and degree of pressure does not always and unavoidably produce Consequential Madness. For the nerves may suffer external impulse, and yet the pressure thereby occasioned either may not have force sufficient to excite any idea at all; or it may act with too great a force and in so shocking a manner as to dissolve or greatly disunite the medullary matter; in which case Sensation, which can never exist but whilst that matter does properly cohere, instead of being perverted will be abolished, or at least suspended untill the constituent particles are reunited.

What this particular sort and degree of pressure is, which is capable of creating delusive Sensation, we are not able to ascertain; because the different circumstances of the unknown subject acted upon will make the nervous effects variable and oftentimes contrary, notwithstanding the ac-  
tion



tion of the known cause considered *per se* is in all respects the same.

But, altho' we cannot exactly describe the particular strength of that external impulse which excites, any more than we can discover why it excites delusive ideas; thus much we may reasonably conclude in general that all material objects, which by their action or resistance occasion a sufficient but not too great a pressure upon the medullary substance contained in the nerves, may be the remoter causes of Consequential Madness.

Which conclusion is not only agreeable to reason, but is moreover confirmed by matter of fact and almost every day's experience. Witness the internal exostoses of the cranium, the indurations of the sinus's and proccesses of the Dura Mater, which have frequently been found in those who died mad; witness the intropression of the skull or concussion of the head, which if not apoplectic is almost always attended with a delirium. And indeed every one, who contemplates several cases of Consequential Madness and those accidents which precede the same, will find that pressure of the medullary substance somewhere or other collected intervenes between such accidents and these their delirious effects.

One



One case of Consequential Madnefs that proves the intervention of fuch preffure is an effect of Infolation or what the *French* call *coup du Soleil*. An instance of which I lately met with in a Sailor, who became raving mad in a moment while the Sun beams darted perpendicularly upon his head. Which maniacal effect of heat could be attributed to no affignable caufe, except either to the violent impreffion of the Sun's rays upon the medullary fubftance of the brain, which the cranium in this cafe was not able to defend, or to the intermediate rarefaction of blood contained in the veffels of the Dura or Pia Mater, which veffels being fuddenly diftended compreffed the fame medullary fubftance. Of the fame nature and owing to the fame rarefaction of fluids in the brain are thofe delirious fevers called Calentures; one of which was, I fuppofe, miftaken for the plague by the \* Author of the *Physicians laft Legacy*, and treated with bleeding *ufque ad animi deliquium*, which indeed is its only cure.

Another cafe of Consequential Madnefs is a fudden inflammation arifing in thofe membranes which furround and therefore when thus diftended comprefs the contents of the cranium and its nervous appendages. This ftate of inflammation

\* Dr. Dover.



whilst the patient lives discovers itself by the sudden redness of the eyes external coat, which is a part or rather a production of the Dura Mater: and that membrane after death is frequently upon dissection found turgid and discoloured with a red bloody suffusion, just in the same manner as if it had been artificially injected.

Another case of Consequential Madness is a gradual congestion of serum or other fluid matter upon the same membranes which envelop the medullary substance; whereby those membranes, tho' not with equal danger as when they are suddenly inflamed, yet with the same delirious effects compress their nervous contents. This ferrous congestion is discoverable by the opaque and cloudy appearance of the cornea, for the same reason as an inflammatory tumor in the Dura Mater is betrayed by the external coat of the eye being tinged with blood.

Pressure of the medullary substance, the nearest in our apprehension to Madness of all its known and remoter causes, most frequently and most effectually produces this its nervous effect, whilst it acts upon the contents of the cranium, as is evident from the cases above-mentioned. But, altho' the brain is undoubtedly the principal seat of delusive sensation, nevertheless it is  
not



not the only one : forasmuch as the same sanguinary or serous obstructions are capable in any other nervous part of the body of exciting false ideas as well as in the brain, at least to some degree and in proportion to the quantity of medullary matter there collected so as to be sufficiently compressed by such obstructions. Thus the stomach, intestines, and uterus, are frequently the real seats of Madness, occasioned by the contents of these viscera being stopt in such a manner as to compress the many nervous filaments, which here communicate with one another by the mesenteric ganglia, and which enrich the contents of the abdomen with a more exquisite sensation. Thus the glutton who goes to-bed upon a full stomach is hagridden in his sleep. Thus

*Men prove with child as powerful fancy works :*

And patients truly hypochondriacal or hysterical refer that load of uneasiness they feel in their bellies to some imaginary object, which if it really existed and acted upon their senses would excite the very same idea.

H                      S E C T.



## S E C T. VIII.

*The Causes of Madness.*

**F**Orasmuch as præternatural pressure upon the nerves is in human apprehension the nearest to delusive sensation thereby excited; whatever injury creates such pressure must be a remoter cause of Consequential Madness.

Under this head therefore of remoter causes are to be ranked the internal exostoses of the cranium, the induration of the Dura Mater, the fracture and intropression of the skull and concussion of the head, as also, if it were of any service in the cure of madness to enumerate them, the many and various accidents these delirious injuries may be owing to.

To the same number of remoter causes we must add morbid distensions of the vessels contiguous to the medullary substance. And, as several cases mentioned in the foregoing section are clearly resolvable into such distensions, whose removal or diminution will frequently be sufficient to answer our intention and is almost always necessary and serviceable in the cure of this distemper;



per; it may be of use to spend a little time in examining into the nature and origin of those vascular distensions which end in Consequential Madnes.

Whoever has attended to the accidents that animal bodies are liable to must have observed that several membranes, which in their natural state appear smooth and even, are sometimes suddenly at other times gradually elevated beyond the surface or plane they before helped to compose. To the first of these two cases writers on Surgery have given the name of *Tumors by Fluxion*, to the second that of *Tumors by Congestion*; thereby ascribing the quick or slow appearance of these swellings to the different motion of the fluids themselves, which materially formed them, and which according to the medical philosophy then in fashion contained all the resources of life health and sickness.

Now, altho' the discovery of the blood's circulation hath demonstrated that the fluids are passive in every circumstance of animal life whether sound or distempered, it will however be very useful in prosecuting the present enquiry to take into our account the cases themselves as distinguished from one another by their different manner of appearance which cannot be contro-



verted, and then endeavour to assign other reasons for such their appearance, which not only really exist, but which also are sufficient to produce either species of tumor.

Tumors then by Fluxion ending in Madness are either vessels distended by the rarefaction of their proper and natural contents, as in the case of Insolation ; or, which is the most frequent accident, they are the same vessels obstructed by the sudden intrusion of improper fluids into smaller canals which were never designed to give either a passage or admittance to such contents, as in the case of Inflammation. Now this change of place and forcible propulsion of fluids from their natural ducts into improper receptacles must apparently be owing to some power external to the fluids so propelled, which power either was not excited or did not effectually act the moment before such delirious obstructions took place. But the spasmodic constriction of those muscular fibres which surround the extremities of arteries and veins, and are at rest till ruffled by some accident, is a power occasionally excited, and when acting with sufficient force is capable of driving the blood out of its natural channels into vessels not originally fitted for its reception. And it is moreover a repeated observation that Madness frequently succeeds or accompanies Fever,  
Epilepsy,



Epilepsy, Child-birth, and the like muscular disorders; and that the tumultuous and visibly spasmodic passions of joy and anger are all at least for a time maniacal. But these passions constrict the muscles of the head and neck, and therefore like a ligature force the blood that was descending in the jugular veins back upon the minutest vessels of the brain.

Spasm therefore, when it is productive of tumors by Fluxion or of sudden distensions in the vessels contiguous to the nervous substance, as also spasmodic passions such as joy and anger are to be reckoned amongst the remoter causes of Madness. Not but that the same muscular constriction is often excited by the application of several external objects; which objects are therefore to be added to the same class. For besides the many well attested cases of poisons or medicines, which as soon as swallowed convulse the body and intoxicate the understanding, such as Hemlock, and the root lately mistaken for Gentian, such as Opium when administered to some particular patients, &c. The many bottle-companions whose pulses beat high and quick, whose faces are flushed with blood in the same manner as if they were strangled, who are first wild and then stupid, who drink till they see double, and then drink on till they cannot see at all, as well

as



as the crowds of wretches that infest our streets and fill our hospitals, evidently prove to the vulgar as well as to the Physician that vinous spirits instantaneously provoke an irregular action of the muscles succeeded by temporary delirium; and that, if the same noxious draughts are taken in too large doses or frequently repeated, they become a very common tho' remoter cause of continual madness.

If any one rather supposes that such external objects, which produce Madness, act immediately upon the nerves thereby affected, and that spasm, tho' an undoubted effect of the same objects, is the companion and not the intervening cause of their delirious effect: However probable the contrary opinion may still appear to those, who consider that spasm never fails to precede or to accompany the nervous disorders subsequent to such application, and moreover that spasm is sufficient to produce maniacal symptoms; nevertheless the nearest known cause of Madness remains exactly the same, and these external objects are still to be reckoned among its remoter causes, which ever opinion is the more probable. Since it is impossible for any one of them to act at all upon the nerves without motion impulse and pressure in the same manner and order, as if they had previously occasioned muscular contraction



striction and vascular obstruction its most usual effect.

As for Tumors by Congestion ending in Madness, that is to say those loads of fluids which gradually overcharge the vessels contiguous to the nerves, and by compressing a sufficient quantity of medullary matter create delusive sensation as effectually as does inflammation or any sudden distension of the same vessels: such gradual or chronical congestions are frequently, tho' not always, an effect of a very different sort of muscular constriction, easily distinguishable from the former by its manner of invasion and continuance. For this spasmodic action of the muscular fibres is very gentle at first, and so far from alarming either the patient or his friends, that for some time it is very little attended to or even discernable. But what it wants in violence is more than made up by its obstinate duration and encrease: inasmuch as it seldom remits, and is with great difficulty relieved by art. This species therefore of spasm must likewise be added to the remoter causes of Consequential Madness.

To such constant muscular constriction, and to the gradual or chronical congestions in the brain or mesenteric viscera thereby occasioned,  
the



the despairing bigot, incapable in his own apprehension of being pardoned by infinite mercy, or predestined by infinite justice to eternal misery before he had a being, the moping lover, the motionless widow or mother bereft of her children, may at first view be ascribed. Who all wear *contractæ seria frontis*, and discover the fixed muscular marks of passions slower indeed in their operation than the turbulent storms of joy or anger, but which in consequence of pressure upon the nerves are as much the remoter causes of Madness, and indeed sooner or later are as destructive to every animal power.

The same Tumors by Congestion, capable with intervening pressure of creating Consequential Madness, are indeed oftentimes an effect of laxity in the overloaded vessels themselves. But even this weakness, if traced to its original, will frequently be found owing to one of the two aforementioned species of muscular constriction.

To such vascular laxity arising from muscular spasm may be referred the many instances of Madness occasioned by præmature, excessive, or unnatural Venery, by Gonorrhœas ill cured with loads of Mercury and irritating Salts, by fevers, and other such like convulsive tumults. And from hence we may account for the chimaerical  
dreams



dreams of infirm and shattered Philosophers, who after having spent many days and nights without closing their eyes in unwearied endeavours to reconcile metaphysical contradictions, to square the circle, to discover the Longitude or grand Secret, have at last fallen half asleep, and who by excessive attention of body have strained every animal fibre, and may without a metaphor be said to have cracked their brains.

But, altho' laxity arising from spasm is most commonly the cause of gradual obstructions ending in delusive Sensation, nevertheless the same delirious tumors by Congestion, more especially those that act upon the nervous matter contained in the abdomen, are formed sometimes without laxity or any spasmodic disorder whatever, either by excess of eating or by defect of voluntary motion: which motion is just as necessary to a due propulsion of the fluids thro' the uterine and hæmorrhoidal vessels, and thro' the many and intricate ramifications of the *vena portæ*, as is the action of the heart or the refilition of the vessels themselves. Gluttony therefore and idleness are both to be added to the remoter causes of Consequential Madness.

To the first is owing the meagrim of the Epicure. To the second, perhaps more than to a  
I
spirit



spirit of lying, may be ascribed the temptations of St. *Anthony* and the lazy Monks his followers, the extasies of seditary and chlorotic Nuns, and their frequent conversations with Angelic ministers of grace. Not to mention what now and then happens to the senior Recluses in our Protestant Monasteries at *Oxford* and *Cambridge*.



SECT.



## S E C T. IX.

*The Diagnostic Signs of Original and Consequential Madnefs; and the Prognostic arifing therefrom.*

**H**AVING in the two preceding Sections discovered most of the causes of Madnefs that deserve our attention, and thereby divided this disorder into two species, viz. *Original* and *Consequential*: It will be necessary to mention some particular circumstances attending either species, which will enable the Physician not only to distinguish Original Madnefs from Consequential, but also the better to settle his prognostic and method of cure.

First then, there is some reason to fear that Madnefs is Original, when it neither follows nor accompanies any accident, which may justly be deemed its external and remoter cause.

Secondly, there is more reason to fear that, whenever this disorder is hæreditary, it is Original. For, altho' even in such case it may now and then be excited by some external and known cause, yet the striking oddities that characterise



whole families derived from Lunatic ancestors, and the frequent breaking forth of real Madness in the offspring of such illconcerted alliances, and that from little or no provocation, strongly intimate that the nerves or instruments of Sensation in such persons are not originally formed perfect and like the nerves of other men.

Thirdly, we may with the greatest degree of probability affirm that Madness is Original, when it both ceases and appears afresh without any assignable cause. For, although we cannot guess why this disease of the nerves is ever relieved without the real assistance of art, or why it attacks the patient again without any new provocation, any more than we can account for the spontaneous intermission of convulsion, fever, head-ach, and such like spasmodic disorders of the muscles; it is however impossible that any one effect whatever can perfectly cease, so long as that cause which was capable of producing it continues to act upon the same subject and in the same manner. And it is as impossible that the effect of any action can after a total discontinuance arise again, without its being regenerated by the same or at least by a similar action. Therefore that disorder, be it muscular or nervous, be it convulsion or Madness, which spontaneously ceases and as spontaneously invades again,



again, cannot be consequential to any external cause, which always exists, and whose action always continueth the same.

Original Madness, whether it be hæreditary or intermitting, is not removable by any method, which the science of Physick in its present imperfect state is able to suggest.

But, altho' Original Madness is never radically cured by human art, its illconditioned fate is however a little recompensed sometimes by a perfect recovery, sometimes by long intervals of sanity, without our assistance and beyond our expectation. Besides Original Madness is in itself very little prejudicial to animal life. For it is notorious that men really mad live as long as those who are perfectly in their senses; and, whenever they sicken or die, they like other mortals are most frequently attacked by illnesses, which have no necessary connection with or dependance upon their old complaint of false perception.

Madness, which is consequential to other disorders or external causes, altho' it now and then admits of relief by the removal or correction of such disorders or causes; yet in proportion to the force and continued action of such causes, and  
according



according to the circumstances of the preceding disorders, it is very often complicated with many other ill effects of those causes and disorders; and, tho' it may not in itself be prejudicial to bodily health, any more than Original Madness, yet by its companions it becomes fatal or greatly detrimental to animal life.

Madness, tho' it may be Consequential at first, frequently becomes habitual and in effect the very same as Madness strictly Original. In which case the internal frame and constitution of the nervous substance retains that ill disposition which was communicated to it *ab extra*, even after that the cause of such communication is quite removed or ceases to act: And the same substance, tho' formed originally as perfect as that of other men, yet by the continual and forcible action of such external cause is at last essentially vitiated in the same manner and to as great a degree, as if it had been created imperfect and of itself capable of exciting delusive sensation.

When internal exostoses of the cranium, or induration of the Dura Mater are the causes of Consequential Madness, each of these cases is apparently incurable by art. Fracture or intro-pression of the cranium, and concussion of the head, or rather its effects, tho' very dangerous  
and



and difficult to be managed, have sometimes been relieved.

When Insolation by the intervening rarefaction of the blood contained in the brain produces delirium, this its mischievous effect frequently yields to the lancet, if not too late or too sparingly applied. But if Madness is the more immediate consequence of the Sun's action upon the nervous substance, and if, however occasioned it is from want of care or from obstinacy of the case protracted after that the piercing darts of heat its remoter cause are quite abated, it is generally of long duration and very often incurable: forasmuch as the medullary portion of the brain is either shocked by the continued distension of the contiguous vessels, or is distracted by the fiery impression in such a manner that its constituent particles are quite deranged from that order, which is necessary to the performing their natural functions in a proper manner.

Madness consequential to the inflammation of those membranes that surround the brain is very dangerous: because such obstruction is formed in minute vessels which lie out of our reach, and which cannot be soon enough relieved by the most plentiful evacuation; nor can the brain thus overcharged endure any additional shock of  
errhines,



errhines, vomits, or rough purges : Since spasm thereby excited would either endanger a rupture of the distended vessels, or heighten the delirious pressure up to Apoplexy, or convert the inflammatory matter into mortification.

And indeed this state of Madness, called Phrenzy, let the Physician act ever so skilfully, frequently ends in one or other of the two last mentioned cases. The first of which is plainly threatened by stupidity succeeding to delirium ; and mortification of the brain may be declared coming on, or rather formed, when the maniacal symptoms cease without any apparent reason, and when the patient who was raving becomes calm and sensible in an instant ; whilst greater debility and a pulse hardly perceivable, together with coldness in the extremities, foretell that this unexpected recovery of the understanding, however it may flatter, will be fatal.

Madness consequential to a gradual or chronic congestion of fluids frequently admits of relief, if applied in time. And such congestion is less dangerous and more easily removed whenever the mesenteric nerves alone are thereby affected ; inasmuch as every difficulty and danger that attends any injury must be less the fewer those nerves are that suffer the same.

When



When spasm is productive of obstructions upon the brain and nerves, and in this case becomes another and a still remoter cause of Consequential Madness, if such spasm is suddenly excited either by the tumultuous passions of joy and anger, or by intoxicating drugs and vinous spirits, it is indeed very violent and oftentimes fatal by its immediate effects. But in case the patient is capable of bearing the first shock, and has not been weakened by frequent attacks of the same nature; such sudden and irregular action of the muscles together with all its phrenetic or maniacal consequences is much sooner either spontaneously abated or relieved by art, than the gradual and continued muscular constriction, which is occasioned by the more gentle passions of love grief and despair, or by long and uninterrupted attention to any one object however pleasing and agreeable. For Madness consequential to such obstinate muscular constriction must be as obstinate as its cause: and besides in this case of continual or increased congestion, there is great reason to fear least the internal frame of the nervous substance itself may at last be essentially vitiated; and Madness which is habitual or of the same nature with that which is Original may succeed, and take the place of what at first was only Consequential.

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Laxity,



Laxity, whenever it intervenes between spasm and delirious pressure and thereby becomes a remoter cause of Consequential Madness, admits of cure if timely and properly applied; and very often the weakened membranes spontaneously recover their former elastic tone, provided the spasmodic impulse is abated, before their constituent fibres are distracted beyond that natural tendency to approximation which was originally implanted in them.

Madness consequential to gradual or chronical congestions occasioned by gluttony or idleness easily yields to medical care, if seasonably and properly applied.

Madness consequential to or accompanied with other disorders affords no particular prognostic, but what arises from those disorders when considered as primary distempers distinct and separate from Madness itself.

Anxiety, when it arises from some fault inhering in the internal frame and constitution of the nervous substance, which is thereby rendered too sensible, like Original Madness and for the same reason is not radically curable. But when its only cause is a laxity or defect of those external



nal integuments which were given to the nervous substance for its defence, in such case Anxiety however afflicting promises better success.

Insensibility or Ideotism, when it arises from an internal and constitutional defect of the organs designed to excite sensation, or when it is a symptom or consequence of Original Madness, like Original Madness and for the same reason must be pronounced incurable by art. But, what is very remarkable and much to be lamented, when Insensibility is the effect of Consequential Madness, or when it may be attributed to the præternatural closeness and rigidity of the nervous integuments, or to obstructions in the contiguous vessels; tho' it may seem as curable as Consequential Anxiety, yet in fact (whatever is the reason of the difference) it is very seldom relieved either by art or Nature.





## S E C T. X.

*The Regimen and Cure of Madness.*

**T**HE Regimen in this is perhaps of more importance than in any distemper. It was the saying of a very eminent practitioner in such cases *that management did much more than medicine*; and repeated experience has convinced me that confinement alone is oftentimes sufficient, but always so necessary, that without it every method hitherto devised for the cure of Madness would be ineffectual.

Madness then, considered as delusive Sensation unconnected with any other symptom, requires the patient's being removed from all objects that act forcibly upon the nerves, and excite too lively a perception of things, more especially from such objects as are the known causes of his disorder; for the same reason as rest is recommended to bodies fatigued, and the not attempting to walk when the ancles are strained.

The visits therefore of affecting friends as well as enemies, and the impertinent curiosity of those, who think it pastime to converse with Madmen  
and



and to play upon their passions, ought strictly to be forbidden.

On the same account the place of confinement should be at some distance from home : and, let him be where he will, none of his own servants should be suffered to wait upon him. For all persons, whom he may think he hath his accustomed right to command, if they disobey his extravagant orders will probably ruffle him to the highest pitch of fury, or if they comply will suffer him to continue in a distracted and irresolute state of mind, and will leave him to the mercy of various passions, any one of which when unrestrained is oftentimes more than sufficient to hurry a sober man out of his senses.

Every unruly appetite must be checked, every fixed imagination must if possible be diverted. The patient's body and place of residence is carefully to be kept clean : the air he breaths should be dry and free from noisom steams : his food easy of digestion and simple, neither spirituous, nor high seasoned and full of poignancy : his amusements not too engaging nor too long continued, but rendered more agreeable by a well timed variety. Lastly his employment should be about such things as are rather indifferent, and which approach the nearest to an intermediate



mediate state (if such there be) between pleasure and anxiety.

As to the cure of Madness, this like the cure of any other disease consists, 1. In removing or correcting its causes : 2. In removing or correcting its symptoms : 3. In preventing, removing, or correcting its ill effects.

These three intentions are to be answered either by general and rational science ; or, if that is wanting, by particular experience alone collected from plain and similar facts, which the history of practice supplies us with.

Original Madness indeed deserves our first attention, as it is the least complicated with any other disorder. But a very little reflection will serve to convince that all our consideration will never enable us to treat this first species of Madness in a rational manner. For it is impossible by any thing like judgment or previous design to answer the first intention, *viz. to remove the immediate necessary and sufficient cause of Madness*, which cause lies out of the reach even of our imagination : And, since no quality whatever can be corrected but by its contrary quality, therefore the unknown state of the nervous substance, when exciting delusive sensation, prevents  
our



our applying to it any remedy, whose apparent qualities betray a manifest contrariety to such distempered state.

And as to the second and third intentions, they in Original Madness are as little to be answered as the first. But that is not because either the symptoms or the ill effects of Original Madness lye out of our reach, or their causes are unknown; but because Original Madness when considered *per se* is not accompanied with any symptoms or succeeded by any effects, which if not prevented removed or corrected would endanger the life or health of the patient.

Nor does experience, which oftentimes supplies the defect of rational intention in many disorders that are hitherto inexplicable by general science and the common laws of Nature, furnish us with any well attested remedy for Original Madness. For, altho' several specifick Medicines have by the merciful direction of Providence been of late successfully applied in some distempers otherwise incurable by art, such as Mercury in the Venereal infection, Opium in pain and watchfulness, the Peruvian Bark in mortification intermitent fevers and many other complaints; and altho' we may have reason to hope that the peculiar antidote of Madness is reserved in Nature's



ture's store, and will be brought to light in its appointed time ; yet such is our present misfortune, that either this important secret hath been by its inventors withheld from the rest of mankind, or, which is more probable, hath never yet been discovered.

Since therefore the first species of Madness is incurable by any remedy which reason or experience suggests, let us divert our attention to the second species : And here to our great comfort we shall find that Consequential Madness is frequently manageable by human art.

For, altho' delusive Sensation, by whatever external accident it may be occasioned, when considered as a distempered state of the nerves themselves, admits of no rational or specific relief any more than Madness which is not consequential to any known cause ; nevertheless the previous disorders and external causes of delusive Sensation are frequently within our reach. And this, as well as any other morbid effect, may in reason be and in fact often is prevented or abated ; provided the known cause is taken care of in time, that is before its continued action hath altered the nervous substance to such a degree as to have rendered it essentially or habitually unsound.

Now,



Now, forasmuch as pressure of the nervous or medullary substance amongst all the known and external causes of Consequential Madness appears the nearest to its delirious effect, and indeed so necessary a cause, that without its intervention nothing external can be supposed capable of exciting delusive Sensation, this cause therefore must be the first object of our care.

In the next place our endeavours are to be employed in preventing removing or weakning those other external accidents before enumerated, which by occasioning intermediate pressure are the remoter causes of Consequential Madness.

Delirious pressure of the brain or medullary substance contained in the nerves, which is the nearest of all the known causes of Madness and therefore demands our first attention, is incapable of being effectually relieved, except the compressing matter itself be lessened, diverted, or dislodged from the part affected: or, to speak technically, the chief intentions under this first article are 1. Depletion; 2. Revulsion; 3. Removal; 4. Expulsion.

Not that all these intentions are to be answered in all cases and circumstances of delirious pressure.



pressure. For when internal exostoses, induration of the Dura Mater, fracture intropression and concussion of the head occasion such pressure, Removal (which indeed intropression does now and then admit) is apparently impracticable. Nor can Expulsion in any one of these cases, or indeed in any oppression of the brain that is similar to tumor by Fluxion, be attempted without imminent danger to the patient's life.

But the two first intentions are almost always to be pursued; and delirious pressure of the brain or medullary substance contained in the nerves demand Depletion and Revulsion, let its remoter causes or circumstances be what they will. For, tho' neither of these intentions propose the removal of exostoses or any one accident just now mentioned, yet unloading the vessels contiguous to the brain or nerves, which are thereby aggrieved, will certainly in all cases prevent or lessen the delirious effect. And, if the pressure arises solely from the distension of the vessels themselves, Depletion and Revulsion are apparently the apposite and necessary methods of relief.

When pressure of the brain or nerves is sudden, both these intentions may safely and effectually be answered by the lancet and cupping-glass again and again repeated in proportion to the strength  
of



of the patient and the greatness of the pressure ; by neutral salts, which gently stimulating the intestines and sensible parts contained in the abdomen provoke stools and urine : of this sort are Nitre, Sal Catharticus amarus, Magnesia alba, Tartar, and all its preparations, more especially the Sal Diureticus deservedly recommended by Dr. *Mead* in Maniacal cases. And Revulsion in particular may be successfully attempted by the oily and penetrating steams arising from skins and other soft parts of animals newly slain, by tepid fomentations and cataplasms applied to the head legs and feet, by oily and emollient glysters ; which are of very great service not only as they empty the belly, but also and indeed chiefly because they serve as a fomentation to the intestinal tube, and by relaxing the branches of the aorta descendens, which are here distributed in great number, make it more capable of receiving the blood ; which will therefore according to the known course of fluid matter be diverted from the head.

The same intentions of Depletion and Revulsion seem indeed to recommend sinapisms, caustics, errhines, and vesicatories, as also the rougher cathartics, emetics, and volatile diaphoretics. But when we reflect that a spasmodic constriction is by no means the least amongst the



remoter causes of Madness, we shall in every case of sudden pressure be fearful of any powerful irritation that endangers constriction, and that cannot answer either intention unless it previously excites an irregular action of the muscles.

And indeed Phrensy or sudden pressure of the brain attended with inflammation of the containing membranes, and intrusion of blood and serum into improper vessels of the head, not only forbid sinapisms and every powerful irritation, but incline us to be suspicious of cathartic salts in too large doses, and even of Nitre itself, tho' it is reckoned specifically antiphlogistic, and tho' it is successfully administered in many other inflammatory tumors before they suppurate.

Delirious Pressure of the nervous substance contained either in the head or abdomen, when gradual or chronical, tho' it is of a very different nature from sudden pressure, and tho' it is similar to tumor by Congestion, yet in robust and plethoric habits alike indicates Depletion and Revulsion. But, if the subject is either naturally infirm or shattered and exhausted by preceding illness, the lancet must be cautiously used or entirely forbidden; and both these intentions can with safety be answered by nothing except the mildest solutives, such as the neutral salts above-mentioned,



mentioned, Cassia, Manna, &c. and the Gumms quickened with a few grains of Aloes.

But, when delirious pressure of the nervous substance, more particularly that contained in the abdomen, is gradual or chronical, if such gentle evacuants, tho' often and properly repeated, prove unable to lessen or relieve the stagnating matter, and in case the weakness of the patient does not contraindicate, here the third and fourth intentions take place: and it becomes absolutely necessary to shake with violence the head and hypochondria by convulsing the muscular fibres with emetics rougher purges and errhines. For such spasmodic action communicates a vibrating motion to the solid fibres of the whole body; whereby the overloaded membranes and integuments that compress the contiguous medullary substance remove or expell their morbid contents, and the patient delivered from his delirious incumbrances frequently recovers his former sanity of mind as well as body.



SECT.



## S E C T. XI.

*The Cure of Madnefs.*

**P**Reffure of the medullary matter contained in the brain and nerves, amongst all the known caufes of Madnefs the neareft to fuch its delirious effect, and therefore the firft object of our attention, has been confidered with regard to fuch methods of cure as are indicated by reason and juftified by experience. In the next place therefore we are to turn our thoughts to thofe *other external accidents, which by occafioning intermediate preffure are the remoter caufes of Confequential Madnefs.*

Now the feveral remoter caufes before enumerated, were 1. Internal exoftofes of the cranium; 2. Induration of the Dura Mater; 3. Fracture or intropreffion of the fkull and concussion of the head; 4. Infolation; 5. One fpecies of fpafm, or muscular conftriktion, fudden and impetuous but fooner quieted; which arifes either from 6. Material objects external to the body, *viz.* poifons, medicines, and vinous fpirits, or from 7. Tumultuous paffions, *viz.* joy and anger; 8. Another fpecies of fpafm or muscular  
con-



constriction more gradual and gentle in its attack; but frequently encreasing, and almost always obstinate in its duration; which arises from 9. Unwearied attention of the mind to one object, or from the quieter passions of love, grief, or despair; 10. Præternatural laxity of the membranes or vessels contiguous to the nerves; 11. Gluttony; 12. Idleness. Of all which in their order.

*Internal exostoses and induration of the Dura Mater* cannot be prevented, nor does either case admit of any particular method of relief. *Concussion* may itself indeed be sometimes prevented, but its ill effects can never be prevented or removed by any intention except that of Depletion and Revulsion recommended under the first article of cure. In *fracture or intropression of the skull* the trepan is peculiarly adapted either to give a vent to, or to remove the extravasated and stagnating fluids.

*Insolation* is quite out of our power; but its subject we have to deal with is not always so. For, altho' the fiery darts of heat are not capable of being removed or lessened by human means, the patient may be removed; or, when that cannot easily be done, the head may be secured by a proper integument; for which purpose a cap  
of



of thick paper has been successfully recommended.

*Spasm* or muscular constriction, as well the sudden and impetuous as the more gradual and gentle, when considered by its self and as abstracted from irritation or any external cause, admits of no method of cure suggested by rational intention: Forasmuch as the immediate necessary and sufficient cause of muscular action, be it natural or distempered, is absolutely unknown. Whenever therefore nothing external to the muscular fibres can be assigned which is capable of provoking their constriction, we have no hope except in specific remedies, that is in such drugs, whose antispasmodic virtues experience alone has discovered.

Under this head of antispasmodics every one, I suppose, will readily place Valerian, Castor, the Gumms, and Musk; and, were I at liberty to indulge a suspicion which has for some time occurred, I should be inclined to add Nitre, the Magnesia, the Sal Diureticus, as also all alkaline substances incorporated with acids, all neutral salts, and all alexipharmacs or diaphoretics: whose sudden efficacy in appeasing the paroxysms of feverish disorders which are apparently spasmodic can be attributed to no other known power,  
but



but such as hath an immediate influence upon the animal fibres endued with motion. Not that any thing more than conjecture is hereby proposed; which is to be admitted or not, as the conclusions of others arising from their own just reasoning and experience shall determine.

But, whatever class the virtues of Nitre and neutral salts &c. shall hereafter be ranked under, it may at present with great truth be asserted from observations already made that they are the only specific helps, which can be depended on with any probability of success or even with safety in fits of Madness attended with fury and violent spasmodic motions. And it is as certain that those other anti-spasmodic drugs which are poyant and irritating, *viz.* Valerian, Castor, and the gumms, are serviceable and indeed harmless only in the second or gradual and gentler species of muscular constriction.

Which observations by the way not only serve to distinguish what specific remedies are proper for either case of spasmodic Madness; but moreover suggest a caution to the Physician in the administering even Nitre and other saline febrifuges in spasmodic disorders whether delirious or not: because such sharp bodies when over-dosed or when applied to subjects too susceptible of irrita-

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tion



tion may sometimes aggravate every symptom they are intended to relieve, and may become as mischievous as those other more poignant anti-spasmodics have frequently proved, when prescribed in all convulsive cases under the general and improper title of *Nervous Medicines*.

The same caution is likewise highly necessary when spasm is occasioned by the sixth class of remoter causes, *viz. poisons, medicines, vinous spirits*, or any assignable matter which actually excites an irregular motion of the muscles. For it is almost self-evident that in such case all additional irritation must increase every convulsive effect, and that even the most gentle saline remedies will be hazardous or at best inefficacious, until the material cause of spasm if superficial is removed by chirurgical assistance, if it be in the stomach or intestines until it is discharged by the force of vomits or purges, or if such means of expulsion be thought too violent until the offending matter is sufficiently enervated by diluting and absorbing medicines, or in case of extrem necessity until its effect is prevented or stifled by narcotics. All which different methods of cure in such Consequential Madness must be left to the sagacity of the Physician; it being impossible to lay down any general direction in a  
matter



matter attended with so great a variety of unforeseen accidents.

But, though the removal of the sixth class of remoter causes, *viz.* every irritation which produces Madness, is not always feasible or even safe, and though such terrible effect admits of no relief so long as the material cause continues to act, nevertheless prevention, at least with regard to vinous spirits, is entirely in our power. For which reason it deserves the serious consideration of our governors, how far it is their duty by a total prohibition of the cause to prevent those frequent effects of temporary but real Lunacy, for which many wretches are executed, who in reality are guilty of debauchery alone, which has been rendered familiar by the custom or rather the convenience of their country, and is allowed or commuted for by the laws of the revenue.

As to the seventh class of remoter causes, *viz.* *tumultuous and spasmodic passions, such as joy and anger*, in case the patient is not in immediate danger of his life, nothing of any great consequence is to be done at first; in hopes that these passions and their muscular effects will, as they are frequently known to do, subside of themselves. But, whenever *anceps remedium* is the indication, after sufficient depletion and diminution



of maniacal pressure thereby occasioned, we must have recourse to the specific, that is to the unaccountably narcotic virtues of the Poppy. And, if notwithstanding this temporary relief any one particular passion seems to engross the man or continues beyond its usual period, in such case the discretion of the Physician must determine how far it may be adviseable or safe to stifle it by a contrary passion. I say *safe*, because it is almost impossible by general reasoning to foretell what will be the effect of fear substituted in the room of anger, or of sorrow immediately succeeding to joy.

The eighth remoter cause of Consequential Madness, *viz. Muscular Constriction, gradual, gentler and uniform, but more obstinate*, may sometimes be relieved or as it were diverted by convulsion that is by an alternate motion of muscular fibres artificially excited in some other part of the body. On which account vesicatories, vomits, rough cathartics, errhines, and the most poignant amongst the medicines called nervous, may in this particular case of spasm become even antispasmodic. For, ignorant as we are and perhaps shall always be of the reason, experience has shewn that, although many parts of the body may be convulsed together, one species of spasm  
however



however occasioned seldom fails to put an end to that other which before subsisted.

When the ninth class of remoter causes demands our care, *viz. unwearied attention to any one object*, as also *love, grief, and despair*; any of these affections will sometimes be annihilated by the tumultuous but less dangerous and sooner subsiding passions of anger or joy. But, if such instantaneous alteration from one extreme to the other appears either not feasible or too shocking to be attempted with safety; bodily pain may be excited to as good a purpose and without any the least danger. It being a known observation, though as much out of the reach of human reason as are most others which occur in the animal œconomy, that no two different perceptions can subsist at the same time any more than the two different species of morbid muscular action, *viz. the convulsive and the constrictive*. Therefore vesicatories, caustics, vomits, rough cathartics, and errhines, may be and in fact often are as serviceable in this case of fixed nervous Sensation as in obstinate muscular constriction, inasmuch as they all relieve and divert the mind from its delirious attention, or from the bewitching passions of love, grief, and despair.

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The tenth remoter cause of Consequential Madnefs, viz. *Laxity* of thofe veffels or membranes that are contiguous to the nervous fubftance, apparently indicates fuch remedies as have the experienced though unaccountable efficacy of contracting the material particles which conftitute an animal body. Of this nature is iron, vitriol, and mineral waters imprægnated therewith: but above all, when nothing contraindicates, the bathing in cold or rather fea-water.

As to the eleventh and twelfth remoter caufes, viz. *Gluttony* and *Idlenefs*, little is requifite for their particular cure: fince, after proper evacuations, temperance is undoubtedly the appofite remedy of the one, and bodily exercife of the other. Both which means of prefent recovery and of prevention for the future may be effectually prefcribed to men of either character, at leaft whilft they are actually mad and properly confined. For the diet of the glutton in fuch cafe is abfolutely in the Phyfician's power. And, although it would be no eafy task to perfwade or even to force any perfon, whether a Lunatic or not, who has long indulged in idlenefs, to put his body in motion; nevertheless this ftate of inactivity may be artificially broke through by vomits, rough cathartics, errhines, or any other  
irritating



irritating medicines : which in this case therefore answer more than one intention, and not only discharge or dislodge the delirious load of stagnating fluids, but also by their convulsive influence upon the muscles of the abdomen and indeed upon every animal fibre of the agitated body crowd as it were a great deal of exercise into a small portion of time, and that without the consent of the patient, or even the trouble of contradicting his lazy inclinations.



SECT.



## S E C T. XII.

*The cure of the symptoms and consequences of Madness. And some observations upon the whole.*

**I**T may be recollected that the cure of Mad-  
ness, as well as of all other distempers, con-  
sists in 1. Removing or correcting its causes:  
2. Removing or correcting its symptoms: 3. Pre-  
venting, removing, or correcting its ill effects.

A method of answering the first intention has  
been proposed in the two foregoing Sections: the  
symptoms and ill effects of Madness should there-  
fore be our next care.

But Original Madness, as hath been before  
observed, is not necessarily accompanied with  
any symptoms or succeeded by any effects, that  
are strictly speaking insalubrious.

And indeed, with respect to Consequential  
Madness, whatever may accompany it as a symp-  
tom or follow it as a seeming effect, every such  
accidental disorder hath in reality no necessary  
connection with Madness itself: but is either re-  
solveable



solvable into other injuries quite foreign to Maniacal affections; or, if it is owing to any one remoter cause of Madness, it is still no more than another effect of the same cause; which effect is just as capable of being thereby generated, whether Madness is or is not produced together with such symptom or before such consequence.

For which reason every symptom and every seeming ill effect of Madness, whether Original or Consequential, must be considered either as a primary distemper, or as the effect of some primary distemper, to which a proper method of cure is applicable separate and independent of Madness; and therefore it is not the subject of our present enquiry.

But, as Anxiety frequently precedes Madness like its cause or accompanies it like its symptom, and as Insensibility sometimes succeeds Madness like its effect; tho' both these præternatural states of Sensation are as distinguishable and actually separate from delusive sensation, as any other animal distemper is or can well be: the same reasons however, which required a more particular enquiry into the nature and origin of these two nervous affections, will excuse our endeavouring to investigate what method of cure the

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discovery



discovery of their causes may seem to indicate with any the least probability of success.

Anxiety then is either Original or Consequential. For, as hath been before observed, it may arise, 1. From some ill-conditioned state of the internal and proper substance of the nerves affected; 2. From the intolerable impulse of external objects, or from some defect in those integuments and membranes that surround the medullary matter, and when they are perfect defend it even from the natural action of bodies which would otherwise excite too lively a sensation.

Anxiety, when it is Original, resembles Original Madness, and for the same reason seems as much out of the reach of medical assistance: But in fact its case is more fortunate; and, tho' Original Anxiety is just as incapable as Original Madness of being relieved by rational intention, it is however frequently palliated by more than one specific remedy.

For wine, and even vinous spirits which are rightly forbidden to persons in perfect health, when occasionally administered as medicines to animal bodies agonising with exquisite sensation, beguile the distresses of mortals, and oftentimes procure



procure them tranquillity and happiness, to which they have long been strangers. And, altho' neither wine nor vinous spirits are adviseable in the vexatious symptom of watchfulness, which frequently attends upon Anxiety, whether accompanied by Madness or not; forasmuch as such poyant stimuli must irritate before their narcotic virtues can take effect; yet I have often prescribed the *Extractum Thebaicum* from one to five grains without any ill consequence to such mad patients as were uneasy and raving all the night as well as day. And, where extream weakness or some approaches to stupor rendered this powerful narcotic not quite so safe, Camphire and Sagapenum have afforded the same anodyne and soporific virtues, tho' not to so great a degree.

Nor ought any one to reject such temporary expedients, as unworthy the attention of a Physician in Original Anxiety, even tho' it should prove incurable by art; who considers that it is his duty to protract the misery of his fellow-creatures, if it be but for a moment; and that anodynes are absolutely necessary in every case of Consequential Anxiety, untill either the intolerable impulse of external objects can be entirely removed or weakened by such methods as particular circumstances require, or untill the



nervous integuments can be restored to their natural firmness by the astringent virtues of the Peruvian Bark, iron, vitriol, mineral waters, and cold bathing; which are the proper and oftentimes effectual remedies, whenever Anxiety arises from the laxity or defect of those membranes that surround and defend the medullary matter.

Insensibility, Idiotism, Folly, or whatever name it is usually known by, is, as hath been observed, almost always beyond the power of rational or specific relief. Nevertheless, that nothing may be left untried, it seems adviseable to make general evacuations, and to contrive partial but constant discharges of the fluids from the head and neck by perpetual blisters, setons, and issues. It may likewise be of some service, if nothing contraindicates, to shake the whole solid frame by vomits, cathartics, errhines, and all sorts of tolerable irritation. To which may be added, but not without great caution, the subtle and penetrating particles contained in mineral waters drank at the fountain-head, and the concussive force of the cold-bath or seawater.

But if Insensibility is constitutional, or owing to the firm and healthy structure of those solid membranes



membranes which sheath the nervous matter, such natural defect or impediment is incurable by art. However this state of stupidity may, at least by those who are endued with too lively a sensation, be deemed a kind of negative happiness, and rather to be envied than lamented.

And thus ends our inquiry into the causes effects and cure of Madness. But, before we quit this subject, it may not be improper to subjoin a few remarks, which will readily occur to every one who recollects the premises, and is moreover satisfied of their reasonableness.

We have therefore, as Men, the pleasure to find that Madness is, contrary to the opinion of some unthinking persons, as manageable as many other distempers, which are equally dreadful and obstinate, and yet are not looked upon as incurable: and that such unhappy objects ought by no means to be abandoned, much less shut up in loathsome prisons as criminals or nuisances to the society.

We are likewise, as Physicians, taught a very useful lesson, *viz.* That, altho' Madness is frequently



quently taken for one species of disorder, nevertheless, when thoroughly examined, it discovers as much variety with respect to its causes and circumstances as any distemper whatever : Madness therefore, like most other morbid cases, rejects all general methods, *v. g.* bleeding, blisters, caustics, rough cathartics, the gumms and fætid antihysterics, opium, mineral waters, cold bathing, and vomits.

For bleeding, tho' apparently serviceable and necessary in inflammation of the brain, in rarefaction of the fluids, or a plethoric habit of body, is however no more the adequate and constant cure of Madness, than it is of fever. Nor is the lancet, when applied to a feeble and convulsed Lunatic, less destructive than a sword.

And, altho' blisters, caustics, and sharp purges quickned with white Hellebore, and indeed all painful applications, not only evacuate and thereby relieve delirious pressure, but also rouse and exercise the body, and seem more peculiarly adapted to Insensibility when it is a symptom or consequence of Madness; nevertheless these and all pungent substances are to be tried with great caution, or rather are not to be tried at all in fits of fury. Nor does even defect of sensation allow their use, whenever such defect is occasioned



occasioned by the preceding excess of the nervous energy, or when it is accompanied with spasm. As to black Hellebore, it is either not the drug which was recommended by the Antients and made *Anticyra* famous, or else it did not really deserve such recommendation. For after several trials I have not the least reason to think it of any service in Madness.

For the same reason the gums and all fetid antihysterics, which are undoubtedly serviceable in Madness arising from or complicated with some sorts of spasmodic disorders, are by no means even safe in all præternatural actions of the muscles: much less can such irritating objects be proper in that particular case of Madness which is attended with feaverish heat, which happens in a plethoric habit of body, or which follows an inflammatory obstruction in the brain.

As to Opium, notwithstanding what hath been before said concerning the great relief obtained by this powerful drug in some particular circumstances, it is no more a specific in Madness than it is in the Small Pox. For no good whatever can be expected but from its narcotic virtue, and much harm may arise therefrom when improperly administered. For it is almost self-evident that in Madness attended with debility



bility and languor, or which approaches towards stupor and insensibility, every thing that deadens sensation must be highly detrimental when given in a sufficient quantity, and may prove fatal when overdosed.

Mineral waters drank at the fountain head and bathing in the sea or cold fresh water have been sometimes chiefly if not solely relied on in the cure of Madness, more especially when attended with Anxiety and known by the name of Melancholy. Nevertheless such methods of relief are all apparently contraindicated, whenever there is sufficient reason to suspect that irresoluble congestions of the fluids clog the membranes contiguous to the nervous substance, or that the solids are strained beyond the possibility of recovering their natural elasticity. For in case of irresoluble congestions every drop of water, whether mineral or not, taken into the circulation will be added to the obstructing matter; and the contracting force of cold or of sea-water applied externally will make the same matter more incapable, if possible, of being resolved. And, when the solids are irrecoverably strained, they will be in great danger of rupture or at least of a farther disunion of their constituent particles by the expansive force of mineral springs, as well as by the rude shock of cold or of sea-water, which



which is very sensibly felt even by those bodies, whose solids are strong enough to bear the same without being hurt thereby.

Lastly with respect to Vomits, tho' it may seem almost hæretical to impeach their antima-niacal virtues; yet, when we reflect that the good effects which can be rationally proposed from such shocking operations are all nevertheless the consequences of a morbid convulsion, these active medicines are apparently contraindicated, whenever there is reason to suspect that the vessels of the brain or nervous integuments are so much clogged or strained as to endanger a rupture or further disunion, instead of a deliverance from their oppressive loads. The same objection equally holds good against such muscular irritation, whenever the vessels are contracted with excessive cold, or when their contents are rarefied by heat, as also in constitutions that are lax and feeble or naturally spasmodic, and in several other circumstances which need no particular description.

Besides, since the characters that distinguish Original from Consequential Madness are not always so clear and certain as to leave no room for error, and since Original Madness is not curable by any method which human reason or ex-

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perience hath hitherto been able to discover ; we should take great care not to do harm where it is not in our power to do any good, and not dwell too long on endeavouring to remove the causes of Madness, which perhaps are only imaginary, more especially if the methods to be made use of are by no means indifferent. For which reason, whenever upon sufficient tryal not only of vomits but even of rougher purges, tho' rationally indicated at first, the patient grows worse or at least gains no ground, they are all entirely to be laid aside. For, if in any case the *juvantia* and *laedentia* supply us with medical knowledge, they most signally do so in disorders, whose nature we are not thoroughly acquainted with, and where reasoning *a priori* cannot certainly foretell the success of any one application.

Nor let us immediately despair at being obliged to withhold that assistance which seemed the most effectual, or conclude that, because the patient cannot be relieved by art, he therefore cannot be relieved at all. For Madness, like several other animal distempers, oftentimes ceases spontaneously, that is without our being able to assign a sufficient reason ; and many a Lunatic, who by the repetition of vomits and other convulsive stimuli would have been strained into downright



downright Idiotism, has when given over as incurable recovered his understanding.

To which remarks arising as just conclusions from reasoning upon the unavoidable action of vomits and rougher purges, I shall beg leave to add some cautions, which experience has suggested as necessary to be communicated to the young practitioner, even when such active medicines are proper. *viz.* 1. If the season of the year is in the choice of the Physician, to prefer the Spring or Autumn, as being in neither extremum of cold or heat : 2. Not to persist in their use at any one time for a longer term than six or eight weeks : 3. Even during that term to give a respite every other or at least every third week from all drugs except the gums, neutral salts, or gentle solutives : 4. As soon as the patient visibly approaches to a state of sanity, entirely to discontinue these and all other violent methods ; that the animal fibres, which have been strained either by the causes of Madness or perhaps by the means of removing them, may be at liberty to recover their natural firmness and just approximation of particles, which a repeated concussion will certainly prevent.

F I N I S.









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plaints for which it is constantly drank are ge-  
stinate, some one mercurial preparation may be  
to be taken at the same time ; but I would re-  
he patient carefully to avoid every preparation of  
is particularly ordered by the physician) : For  
f sea salt on mercury, it is converted into a vio-  
ot unlike corrosive sublimate, and may prove  
to the constitution, more especially to the ner-

nothing for pleasure,  
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T R E A T I S E  
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M A D N E S S.

By WILLIAM BATTIE M. D.

Fellow of the College of Physicians in London,

And Physician to St. Luke's Hospital.



L O N D O N :

Printed for J. WHISTON, and B. WHITE, in Fleet-street.

M,DCC,LVIII.

[Price Two Shillings and Six-Pence.]





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