A new system of the spleen, vapours, and hypochondriack melancholy wherein all the decays of the nerves, and lownesses of the spirits, are mechanically accounted for. To which is subjoined, a discourse upon the nature, cause, and cure, of melancholy, madness, and lunacy. With a particular dissertation on the origine of the passions; the structure, etc. of the nerves ... To which is prefix'd a philosophical essay concerning the principles of thought / [Nicholas Robinson].

Contributors

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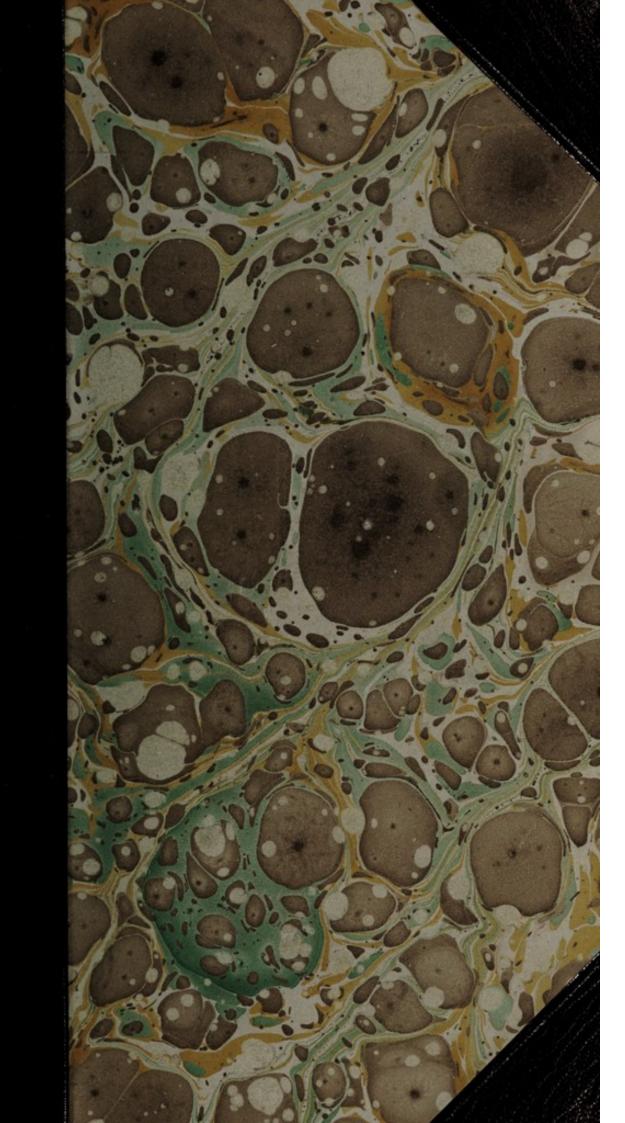
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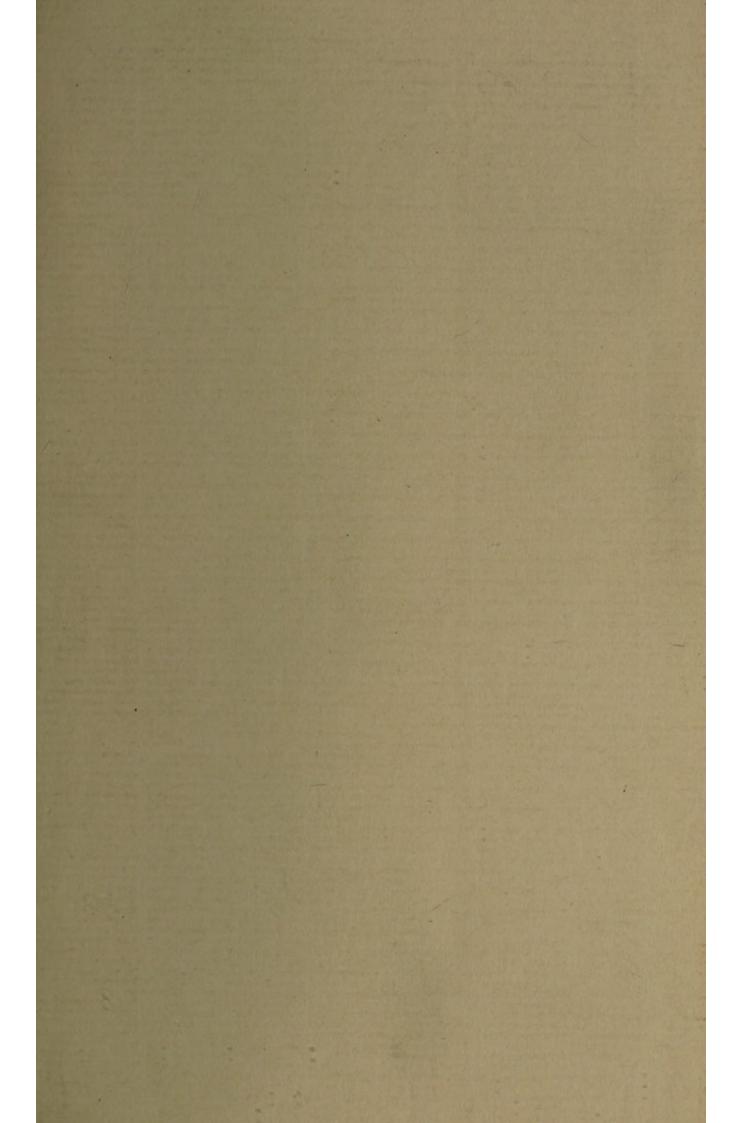
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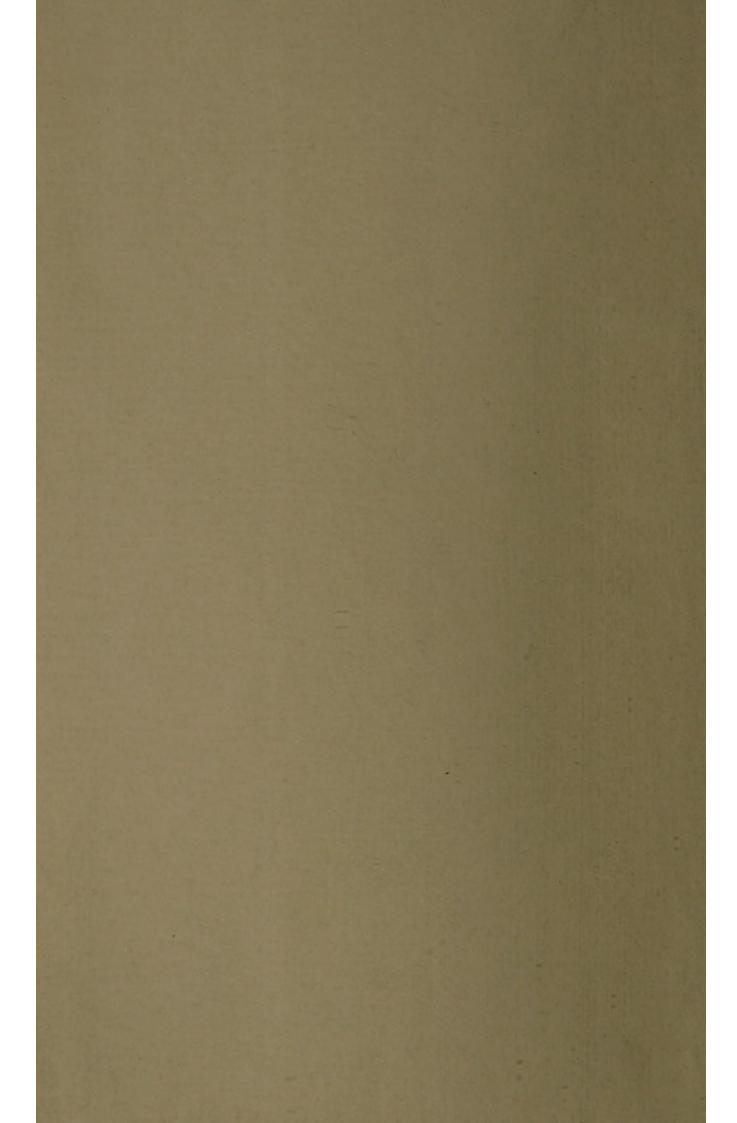


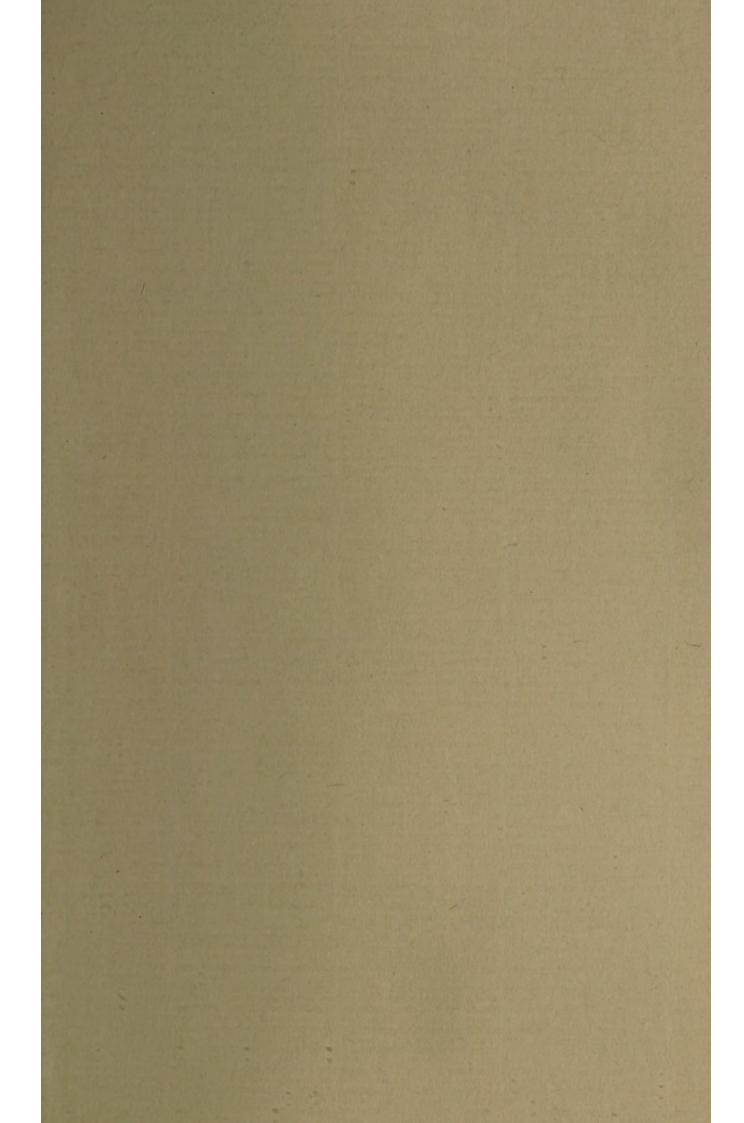
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ANEW EM OFTHE SPLEEN, VAPOURS, AND Hypochondriack Melancholy: Wherein all the DECAYS of the NERVES, AND LOWNESSES of the SPIRITS, are mechanically Accounted for. To which is fubjoin'd, A DISCOURSE upon the Nature, Cause, and Cure, of MELANCHOLY, MADNESS, and LUNACY. With a particular DISSERTATION on the Origine of the Passions; the Structure, Mechanism, and Modulation of the NERVES, necessary to produce Sensation in Animal BODIES. To which is prefix'd, A PHILOSOPHICAL ESSAY concerning the. Principles of Thought, Sensation, and Reflection; and the Manner how those noble Endowments are disconcerted under the foregoing Diseases. By NICHOLAS ROBINSON, M.D. and of the College of Physicians, London. In Magnis & Voluisse sat est. Propert. L. 2. Eleg. 10.

LONDON:

Printed for A. Bettesworth, W. Innys, and C. Rivington. M.DCC.XXIX.





To the HONOURABLE

Sir HANS SLOANE Bar.

PRESIDENT of the

College of Physicians,

And PRESIDENT of the

ROYAL SOCIETY.

SIR,



HERE present you with A New System of the Spleen, Vapours, and Hypochondriack Melan-

choly; and as it is a Subject attended

2

with

with the most perplexing Difficulties, to whom could I so properly address it, as to a Gentleman of your superiour Wisdom and Experience in the learned Arts and Sciences?

It has always been my Opinion, that Books in any Art or Science, are most properly inscrib'd to those Persons, that are consummate Judges of the Subject we treat of: And your profound Knowledge and Experience in the Faculty of Physick, perfectly enables you to make an exact Judgment of the Treatise I tender to your Consideration.

THE Office of a Physician, Sir, is an Office of Trust, and that as high as can be conferr'd from one Man to another: For what avails the largest Estate, or the most pompous Affluence, to him, that for

DEDICATION.

want of Health cannot relish the Pleasures, Satisfactions, and Enjoyments, they afford him?

A CROWN, a Diadem, or the Royal Purple, are vain, uneasy, and insignificant Ornaments, to the most potent Prince languishing under a Fever, or distress'd with the raging Torture of the Gout.

In this, therefore, does the noble Art of Phylick excel all other Arts and Sciences, as it is conversant in Relieving the personal Infirmities of Mankind, under their greatest Distress and most deplorable Circumstances.

To do Good, to relieve the Sick, and administer Ease to the afflicted and miserable, are Characters that ennoble the Soul, immortalize human Nature, and, according to the

Sen-

Sentiments of our great Master *
Hippocrates, lifts him up to an
Equality with the Gods.

THE Honour, Sir, of the Profession, is not a little advanc'd by those Kings, Princes, and Philosophers, that either themselves have writ upon the Subjects of Medicine, or at least very much favour'd the Professors, That excellent Composition of Mithridate, was so call'd from Mithridates King of Pontus, its first Inventor: Mesue, Son to Abdalus, King of Damascus, compos'd the Philonum Persecum; Sabor, King of the Medes, records several Medicines; and Avicenna, that great Master of Physick, was an Arabian Prince.

^{*} Medicus enim Philosophus Deo æqualis habetur. Lib. de decenti Habitu.

Not, Sir, that I am wholly confin'd to these Instances of Antiquity, in favour of the Profession: For we have several Personages, in our own Kingdom, of the most illustrious Rank of Nobility, that very lately have been pleas'd to do Honour to the Profession, by taking up a Doctor's Degree in the Faculty of Physick.

AND it must be confess'd, Sir, even by those that are greatest Enemies to the Profession, that the wonderful Mechanism discoverable in the curious Structure of a human Body; the Consent, Agreement, and Harmony, of its several Motions, are Subjects of that sublime Nature, as may well engage the Study and Attention of the highest Mortal upon Earth.

THAT

THAT you may long live the Ornament of both these Royal Societies, in which you so eminently preside, and share the Character of the great Hippocrates, who was not more illustrious for his profound Learning, than his Virtue, Humanity, and Benevolence towards Mankind, is the sincere Wish of,

SIR,

Your most Obliged,

and most Obedient,

Humble Servant,

Nicholas Robinson.



THE

PREFACE

OR great Master Hippocrates, in the Beginning of his excellent Book of Aphorisms, lays down a (bort, concise, but most comprebensive Sentence, as a Preface to that judicious Work; Vita brevis, Ars vero longa: The Sense of which, as I understand it, is, That Life is short, and the Compass of Time very unequal to compleat a Physician, in the several Branches of his Profession. For after he has studied the Principles of Natural Philosophy, gone thro' all the Experiments necessary to compleat him in the Knowledge of natural Bodies, he is still to begin his Enquiries as a Physician.

THE Ancient Physicians, always Solicitous for their Success in Practice, grounded their Theories of Physick upon the Maxims of Philosophy then most generally receiv'd; but as their Systems were for the most part void of a rational Foundation, so could they afford but little Certainty, in a Practice founded upon such precarious Principles.

I need not determine which of the Ancients is preferable, since Hippocrates has justly born the Sway thro' all Ages, and doubtless ought to be read with Diligence, by all that intend to be Proficients in the Practice of Physick; for, like Milton, the more be is understood, the more be charms us with the Justness and Sublimity of his Sentiments. And after Galen, all the rest were little better than Copiers, and some of 'em but indifferent Transcribers, from the Copies of these illustrious Originals.

THE Moderns, therefore, since the Improvements of Natural Philosophy, and Discovery of the Circulation of the Blood, must have more certain Grounds to go upon; and it can be imputed to nothing but the most stupid Negligence, if, assisted with these superior Lights, we do not over-top the Ancients, in all the Branches of the Arts and Sciences, and arrive at greater Perfection in their Practice, than could possibly be expected from them, under that Night of Darkness, in which they were involved.

AND

The PREFACE.

AND I am fully perswaded, were Men to employ more of their Time in the Study of Nature, the Constitution of buman Bodies, and less in their Pleafures, that every Century would raise up more Aristotle's, Hippocrates's, Newton's, and Sydenham's, than what the several Ages past have been able to boast of.

THE Capacities of Men are generally the same in all Ages, but most of us, it's to be fear'd, are cramp'd in the first Grounds of our Education: We get such an habitual Tineture of Pleasure in our earliest Age, as scarce ever after suffers us to pursue those toilsome, laborious Studies, necessary to make us perfeet Proficients in the Arts and Sciences.

NOR can I, after the best Observations I have been able to make, come into the Sentiments of those Gentlemen, who are of Opinion, that a Physician, like a Poet, is born such, not made; and the Principles of Physick, like the Principles of Poetry, interwove with the Constitution, not acquir'd by Labour and

Study: For though a Genius may be naturally inclin'd to Physical Enquiries, yet, without very great Application, he never will be able to make any considerable Figure, in the Practice of his Profession.

AND Horace's Exhortation to the Modern Poets of his Time, is very applicable to my present Purpose.

Nocturna versate Manu, versate diurna.

Lib. de Arte Poetica.

SO that even Poets, as he very well observes, who have the best Title to innate Principles, must labour Night and Day in the Greek Fathers of Poetry, if ever they expect to reach the Sublime, and adorn their Writings with all the Elegancies and Beauties of the Ancient Bards.

AND I lay it down as a Principle, grounded upon the most evident Maxims of Truth, that whenever a Genius of the most elevated, natural Capacity, lets go any Opportunities of Improvement, he will

will certainly come behind those, that are inferior to him in natural Endowments, but who are his Superiors in Knowledge, only from their indefatigable Application to those Arts, their Minds naturally led them to the Study of.

NOW, to turn the Thread of my Difcourse to the Subject under Consideration; I am not insensible, that many Objections may be rais'd against several Points, in the first Part of this Treatise; as that they either have a very remote Dependance on these Diseases, or at least are not of that Consequence, as to deserve a particular Explanation.

BUT these Objections, I readily perceiv'd, must arise from our not attending to the Nature of these Diseases, their several Symptoms, and the Chain of Causes that support them upon the Constitution: For as the Organs of all the Senses are often disconcerted under the Spleen and Vapours, how was it possible to treat of these different Symptoms, without first taking notice of the Manner, how the Organs are naturally affected, in letting in their proper Objects upon the Mind.

THESE

THESE Considerations, at once led me into an exceeding spacious Field of Reflection; and I found my self obliged to range through all the principal Subjects of Natural Philosophy: To consider the Nature of Vision, the Doctrine of Sounds, and the Faculty of Touch; what the Objects are in themselves, in the Organs of Sensation, and in the Mind perceiving their Affections.

ALL thefe several, particular Points were necessary to be consider'd, before I could proceed to discover what Changes, in the Motions of the Fibres, were necesfary to produce these Alterations in the Mind, we most commonly perceive to affect us under the Spleen, Vapours, and Hypochondriack Melancholy.

IN Treating of these several Subjects, I readily perceiv'd, that the very Entrance was surrounded with thick Darkness, the Path all along beset with many Thorns, and the subject Matter itself obscur'd with the most intricate and perplexing Difficulties: Neither could I discover any Glimmerings of Light, from

XF

the Footsteps of former Authors upon these Subjects, that I could safely rely upon, to direct me in the Way of these Enquiries.

BE it, therefore, that I have err'd; that some Things are weakly treated of; others, perhaps, not sufficiently clear'd up; and several Points left doubtful in their Explanation: Of all these several Particulars, I am my self extremely sensible; but hope there are no Errors, that are not excusable by Men of Humanity; no Faults but what Persons, not wholly given up to Arrogance, or a Spirit of Resentment, may easily pass over. no Mistakes, or Over-sights, but what a candid and friendly Reader (if he feriously reflects upon the arduous Task I have undertaken) will easily be prevail'd upon to pardon.

DISSERTATIONS upon the Reason, Understanding, and other Faculties of the Soul, which take up most of the first Part, are Subjects that baffle the nicest Searchers into Nature, and which, by the greatest and most learned Philosophers,

sophers, have ever been acknowledg'd most difficult to handle.

THET, indeed, afford the highest Pleasure to Gentlemen endu'd with a fine Taste for Enquiries of this sublime Nature: And I am perswaded, that a Person, of the meanest Capacity, will with Pleasure be able to read the strong Lines, I have drawn of this immaterial, unchangeable, and immortal Part, the Soul.

TO conclude; I only intreat the Courteous Reader, as my Affairs would not always permit me to visit the Press, that he would make favourable Allowances for human Insirmities, lesser Errors and Mistakes, which, in so great Variety of Argument, on so very nice and difficult Subjects, might not unreasonably be supposed to escape the greatest Care.

Warwick-Court, in Warwick-Lane, Dec. 6.1728.



ANEW

SYSTEM

OFTHE

SPLEEN, VAPOURS,

AND STATES

Hypochondriack MELANCHOLY.



PART I.



INTRODUCTION.



O fearch after Truth, to An unbias'd examin former Opinions, Guide to difand weigh every Sentiment, and Knowwith the greatest Exactness, ledge.

in the Balance of Equity, are the most generous Characters, that diftinguish a truly noble Soul.

Mind the fureft cover Truth

IN

B



In this Conduct, all Virtue, Learning, and Knowledge are intirely comprehended; and once a Man is arriv'd to that Evenness of Temper, that he can relinquish his darling Notions, when they appear not grounded on the Laws of Nature, he certainly is in the high Road to that invaluable Blessing, Knowledge, that elevates one Man above another, and distinguishes all of us from the brutal Parts of the Creation.

I attempted, in my Treatise of Consumptions, to account for all the various Appearances of Diseases, that exert their Tyranny within the Compass of the circulating Fluids, from the slightest Decay to the most confirm'd Phthisis, from the mechanical Affections of Matter and Motion: I shall now proceed to examin into the Nature, Cause, and Cure of those that attack the animal Powers, and disconcert the noble Endowments of the rational Faculties, in order to compleat a new System of Physick and Diseases.

In attempting a Treatise upon the The Difficul-Spleen, I readily perceiv'd, that I had got ties, that attend into a Scene of Nature, where it was arise from the highly difficult to discover the least sure Obscurity of Footing, where most of the Phænomena that concern this Enquiry are deeply entrench'd in impenetrable Darkness, and where the Nature of the Subject it self scarce admits of Evidence, much less Demonstration.

INTROD.

However, in the Profecution of this What is to be System, I shall endeavour to plunge as we cannot atdeep into the metaphysical, abstruse tain to Demons Mysteries of Matter, Thought, and Motion, as the Nature of these several Points will admit; and there content my felf with the most seeming Probability, where I cannot discover demonstrative Evidence, which will then be supported upon the furest Grounds, if it contain no obvious Contradiction to the Laws of Nature.

For there is a regular Fitness, in the Nature of Things, that compose the Universe, whereon the Relations of all their B 2

PART I. their Ideas are supported, even from the V first Principles down to the ultimate Conclusions, tho' infinitely remote: The intermediate Ideas are all those Objects, by whose necessary Connexion we difcover the feveral Links of the Chain, that hold the first Principles of Nature connected with the ultimate Conclufions; and by which we discover that Chain of Consequences, that make up the Beauty, Order, and Harmony of any Subject.

How to purfue our Difcoveries of the most abstruse Points.

THE right Way, therefore, of purfuing our Discoveries of Knowledge, is Knowledge in to lead the Mind, by gradual and eafy Steps, from felf-evident Theorems, into the most abstruse Mysteries of Nature and the Sciences, where the feveral Ideas, that express the Nature of any Subject, all depend on each other, in a Chain of Consequences, supported upon an eafy and natural Connexion.

What Knowledge is.

Now the Knowledge we acquire of any natural Phænomenon, is only the Discoveries we make concerning the Relation it bears to that Scheme of Be-

ings, that adorn the Universe; and so INTROD. far as we can discover the inseparable Habitudes and necessary Connexion of its Ideas, fo far, and no farther, can we difcover certain Truth and Knowledge.

THERE is a twofold Knowledge of A twofold Knowledge natural Beings; the one intuitive, the of Natureneother experimental; the first relates to ceffary. the Discovery of new Ideas or Objects, that were before unknown to the World, the other concerns the necessary Connexion or Arrangement of their Properties, and the Powers they have to alter, change, and affect other Bodies in the Universe: Our intuitive or perceptive Knowledge, because it arises from an immediate View of the Objects, depends on Travel; our experimental Knowledge, on the Discovery of the Properties of those Objects.

SENECA was so sensible, that this latter was a real Part of Knowledge, that he takes particular Notice of it in his fixty fourth Epistle, in these Words, Etiamsi omnia a veteribus inventa funt, tamen erit boc semper novum, B 3 ulus

PART I. usus & dispositio inventorum ab a= www liss.

The Knowledge of any Properties different.

HE, therefore, as this great Philoso-Object, and its pher very well observes, that, by his fuperior Skill, has render'd a Science more clear and intelligible, by a proper Arrangement and distinct Explication of its several Branches, though he has faid nothing new, as to the Matter, that was not faid before by others, yet certainly is a real Benefactor to Mankind.

> A VERY familiar Example will let this Point more clearly into the Mind. He that discover'd that noble Remedy we call the Fesuit's Bark, but remotely discover'd a Blessing that has rescu'd Thousands from the Jaws of Death; but he that discover'd the certain given Circumstances, in which it might always profit, but never could hurt human Bodies, certainly was a more extensive Benefactor to Mankind, than he that first fent it over to Europe, with this general Character, that it was a most excellent Specifick in all Agues and intermittent Fevers, but, at the same Time, could

give no Information of the particular INTROD. Circumstances, in which it might safely be given.

HENCE the Discovery of the Thing itself was but of little Consequence to the Generality of Mankind; but the Discovery of the Connexion its Corpuscles had with human Constitutions, whereby it cur'd periodical Diseases, was the real and only Benefit, and for which the Author merited the highest Acknowledgments from the rest of his Fellow-Creatures.

AND as Travel is the properest Means Traveltheproto enlarge our Ideas, so Experiments to improve concerning the Properties of these Ob- our intuitive Knowledge; jects, is the only Way to improve our Experiments, rational Knowledge. Both these Re-Knowledge. quifites are absolutely necessary to him, that would make any confiderable Advances in the Study of Nature; for that Knowledge must needs be contracted, and narrow, while only confin'd to the Objects of his own Country; and therefore he that has confin'd his Views of Men and Things to his own City or Vil-

PART I. lage, will have fewer Opportunities of enlarging his Knowledge, than he that has rang'd through a Province; and he still fewer, than he that has seen the distant Boundaries of a spacious Empire; and he still fewer, than he that has travell'd through divers Parts of the World: But this Remark I only intend to be understood of Persons that travel for the Improvement of their Knowledge, not for the Indulgence of their Vices; feeing that these may be said rather to travel for the Improvement of Ignorance, than the Difcovery of useful Knowledge.

Whence our Mistakes and Errors.

YET, after all our accurate Discoveries, and best Attainments, we daily fall into gross Mistakes, which arise not so much from a necessary Error in our Judgment, as the Imperfection of our Organs, while the Soul is chain'd down to the Conduct of the Senses; but still he is the wifest Man, that arrives to the greatest Perfection in this Knowledge of himself, and of human Nature, that his Faculties are capable of: Than this, God and Nature requires no more at our Hands.

INTROD.

And here I beg Leave, once for all, to forewarn the Reader, that he do not expect strict Proofs for all the particular Points I shall handle in the ensuing Discourse; for he will have Reason to be abundantly satisfied if I treat of these several abstructe Subjects in a Way more familiar to the Mind, than what has hitherto been taken Notice of, and which will serve greatly to illustrate the Nature and Cause of the several Diseases I shall consider in the ensuing Discourse.

Demonstration we ought never to when, and attempt, where the Subject is either a- when not, to attempt, where the Reach of our natural Capaci- monstration. ties to comprehend; or where we can difcover no visible Connexion between the Ideas on which we would ground the Certainty of our Proofs; as certainly we cannot, concerning the Ideas that support the Juncture of Matter and Thought, and from what wonderful Causes it arises, that Matter and Motion should obey the Determination of the Will.

PART I.

Our Ignorance, I fay, of the Manner how this Juncture is supported, that is, how the Body works upon Thought, and Thought upon Matter, will ever render us liable to great Uncertainties concerning the real and immediate Causes of Pleasure and Pain, or how those different and opposite Sensations are produc'd, from the same Instruments, in animal Bodies; and as the ingenious Author of the Dispensary elegantly expresses it:

How the same Nerves are fashion'd to sustain

The highest Pleasure and the greatest Pain.

Probability must supply the Place of Demonstration, where that cannot be had.

In Points, thus far lying beyond the Reach of our natural Faculties to comprehend, the highest seeming Probability must determine our Assent, which will always give way to the Force of those Arguments, that are grounded upon Reasons most evidently prevailing.

Now, in order to give the Reader the The Manner clearest View of the Manner, how our of treating the Thoughts often, under nervous Difeases, pours, and Hystart from a regular Turn of Thinking, pochondriack into strange and ridiculous Whims and Fancies, I shall in this first Part offer fome Confiderations touching the Nature of Thought, and the Structure, Mechanism, and Modulation of the Nerves, neceffary to produce Sensation, and transmit the Ideas of all fensible Objects to the Understanding. After this, I shall, in the fecond Part, attempt to discover how the Nerves ferving the feveral Senses abate of their proper Stricture, and infer those Disorders, in the Animal OEconomy, we call the Spleen, Vapours, and Hypochondriack Melancholy; and lastly, in the third Part, shall observe the most general Rules and Methods, in order to restore the impair'd Tone of the Nerves, to their regular Standard. whereby the intellectual Faculties will recover their regular Action of Thinking again.

INTROD. Spleen, Va-Melancholy.



THE Design of the following Treatise is to set all these several Particulars in the clearest Light their abstructe Natures will admit; in the Prosecution of which Subjects I shall endeavour, as far as I am able, to bring down the lofty and sublime Mysteries of Matter, Thought, and Motion, to the Level of the meanest Capacity. To which End and Purpose I shall discard all hard Words, puzzling Terms, and harsh Expressions, that only serve to embarrass the Readers Thoughts, and spoil the Periods of the brightest and most beautiful Connexions.

But, alas! what Lights shall I lay hold of, that may safely guide me through the dark and intricate Mazes, that lead up to the Soul's Residence? or how discover the Partition Line, that determines the mysterious Boundaries between the Ending of Matter and Beginning of Thought? or disclose where exists that most subtle Medium, that holds these two distinct Substances, so closely united, that nothing but Death can dissolve the Juncture?

ture? These are Points most ab- INTROD. strusely mysterious, and pois'd with Difficulties, I easily perceive, will demand the Assistance of a stronger Brain than mine to untie.



But, though these Speculations may In Philosophicontain Matters infinitely exceeding the our Reason is Reach of the most enlarged Capacity to comprehend, and which perhaps are not Senses, when comprehensible by us in this imperfect above their State; yet to me it seems greatly absurd, Reach. to think, that we should limit the Boundaries of our Knowledge to the Difcoveries of our Senses only: Certainly our Reasoning Faculties were given us to affift our Inquiries in the Pursuit of Objects, when either through their Minuteness or Remoteness they ceas'd to discover themselves to the Senses. We know certainly, though we see not, that the Corpufcles of Matter in their ultimate Divisions impell, resist, and divide each other, in the same Manner as they did in the greater Vessels, and that the three grand Principles of Nature, viz. Figure, Impulse, and Motion, are the fame, whether we perceive them by the naked

cal Enquiries to fupply the Use of the the Object is

Of the Spleen, Vapours, and

PARTI. naked Eye, by Microscopes, or Reflecm tion.

> Bur if it be objected, that thefe Principles are infufficient to give us a just Idea of the Points in Question; I answer, that they being the genuine Laws of Nature, if rightly employ'd, will let in, upon the Mind, all the Light and Knowledge that are necessary to our State and Condition, and will ferve much better the Ends of Philosophical Enquiries, than any fanciful Hypothesis, how artfully foever contriv'd, yet handed to the World.



CHAP. I.

Of the different Principles of human Bodies, in Relation to the different Constitution and Genius of Mankind.

The Motions of human Bodies conducted upon the fame support the System of this Universe.

14

Have, in a former Treatise, endeavour'd to prove, that these Bo-Principles, that dies of ours are conducted upon the same Laws, that support the Motions of this huge

huge Frame of Nature, and that all CHAP. 1. their Phænomena, whether under a State of Health or Diseases, are discoverable from the Principles of Attraction, Motion, and Division; and therefore, in order to apply these Principles to the Structure and Mechanism of human Bodies, and fupport the following System upon the clearest Evidences of Truth, I shall beg Leave to assume these several following Propositions, as fundamental to the ensuing Discourse.

THAT every Individual necessarily receives a peculiar Constitution from his Parents, that arises from the first putting together of all the Fibres, joining in one common Mechanism; by which the feveral Organs are supported in their Motions.

This mechanical System of Matter receives Life from its Motions refulting from the Harmony of the feveral Fibres, that constitute the Members of the organiz'd Machine, of which the Heart is the principal Spring.



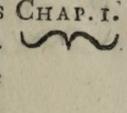
Sense and voluntary Motion it receives from fine Threads or nervous Fillets, that either immediately hold of the Soul their several Sensations, or at least of the common Sensorium, which I take to be the Seat or Residence of that Thinking Being, that resides thus surprizingly within us.

Its natural Motions are owing to the different Degrees of Elasticity or Springiness, that the Fibres of the Body are naturally endu'd with; and which constitute those different Habits, that are perceivable in different Individuals.

This different Elasticity of the Fibres, by which the Motions of the Constitution are varied, exalted, and depress'd, arises from the different attracting Principle in the Corpuscles that originally compose those Fibres, whereby they are differently intended or remitted with a greater or lesser Spring or Impulse.

THE Body, thus constituted or arising into Being, is susceptible of divers Motions,

tions, inducted from the different Degrees CHAP. 1. of Elasticity, that the Solids of one Individual obtain above another, which are the Causes of all those Changes and Alterations the Constitution suffers from, whether under a State of Health or Diseases.



But least, that, according to this Syftem, there should be as many different Constitutions, as there are various Degrees of Motion in different Individuals, or different Complexions among Mankind; it pleas'd the Antients to reduce that infinite Variety of Constitutions dependent on those various Motions, under four distinct Classes, which they term'd the hot, the dry, the moift, and cold Temperatures; and to which they fubjoin'd four Humours, that corresponded to those feveral Temperatures, as they more or less prevail'd in the Constitution; and these they call'd the fanguine, biliofe, phlegmatick, and melancholy Humours.

Now, that these several Principles, as they respected the Qualities as well as Humours of the Body, were dependent on the greater or leffer Degrees of Mo-

tion,

PART I. tion, is evident; for by increasing the Beating of the Heart, you evidently alter the prevailing Quality, and confequently the Humour depending on that Quality; fo that the Difference of Constitutions is much more clearly grounded on the different Elasticity of the Fibres, whereon those different Motions depend, that give those different Qualities; as also those different Humours to the Habit, whereby the Constitution is denominated hot, dry, moist, or cold; and the Complexion of a fanguine, biliofe, phlegmatick, and melancholy Temperature: For certain we are, that the Complexion is diversified, not only from the different Features arifing from the different Polition or Arrangement of the Fibres or Muscles, but from the different Motions inducted from the different Elasticity of the Fibres; which different Elasticity arises from the different attracting Principle lodg'd in the * Machinulæ that compose those Fibres.

* Machinula are little fmall Corpufcles of Matter, that vary their Distance and Motion in every Contraction or a Fibre, Muscle, or Organ.

Now the biliofe Constitution, cateris paribus, always arises from the highest Degree of Elasticity in the Solids, which Distraction of infer the highest Degree of Dryness in the

the Habit; upon which the Blood of CHAP. I. these People is always impregnated with Plenty of Salts; whereby they are strongly inclin'd to gratify their Passions; and for this Reason they are naturally fubject to the Gout, Stone, and Gravel, because their Solids are capable, from their quicker Impulse, and stronger Impressions on the contain'd Fluids, to extract a greater Proportion of Salts from the Blood, than is possible in Constitutions, whose Solids are not endu'd with the same Degree of Elasticity.

THE intellectual Faculties of the Mind Of the Genius residing in this Constitution, is always biliose Constilively, vivacious, and abounding with tution. that fublime Wit, that often, in its towering Flights borders upon Phrenfy; and this is the Reason why Persons of fingular Thoughts are often suppos'd to have a Tincture of Madness in their Composition, which often arises only from Want of Judgment in their Accufers. However, the Difference between ingenious Persons that are mad, and those of this elevated Cast of Mind, is, that the Discourses of the former are irregular,

residing in the

PART I. regular, and frequently broke off by incoherent Starts; while a regular Chain of Sentiments is deliver'd by the other in the fublimest Strains, and which is above all human Thought to foar, not assisted with this natural Temperature of the Solids.

> THE fanguine, though more level in its Flights, yet generally is folider in its This Temperature de-Conceptions. pends altogether on the Impulse of the Heart and Arteries, which are less elaflick than under the former Constitution; fo that the Blood only obtains fo much Motion, as may divide it to a just Degree of Fluidity, not fo much as in the biliofe, tho' rather more than under the phlegmatick Conflitution. This is the most happy Medium of the Habit, in which the Fluids are most exactly mix'd to reflect the Rays of Light tinctur'd with red, which discovers to us that Floridness of the Complexion in Persons endu'd with a delicate Texture of Skin.

In the Sanguine.

UNDER this Temperature, although the Mind is capable of exerting less of

that flashy Wit, yet it obtains a more CHAP. I. noble and folid Way of Thinking, and is fitter for the Discoveries of experimental Knowledge, because it dwells longer upon the Contemplation of fenfible Ideas, by reason that the succeeding Impulse is not strong enough to abate the Attention, unless the Object strike the Mind with fome Idea very furprizing.

or refiding in the

THE phlegmatick has for its Support Of the Genius a lesser Degree of this Elasticity, Springiness of the Fibres; whereupon Constitution. all the Impulses are weaker, the Motions and Secretions of the several Juices slower, and confequently the Heat less discoverable, than under either of the foregoing Habits. People of this Complexion are generally less ready in apprehending Objects offer'd to any of the Senfes; but what they do conceive, they most commonly retain, and improve upon the Inventions first discover'd by others.

WERE I permitted to give my Opi- Of the distinnion, concerning the different Inclina- guishing Chations observable between the People of tween the Englifhand French. the French and English Nations, in re- in relation to lation Genius.

Part I. lation to the Improvements of the Arts and Sciences, it should be, that the French, being generally more biliose in Habit, are more ready at Inventions, from the Quickness and Changeableness of their Tempers, that seldom suffer them long to dwell upon any one Object; but that the English, being of a slower Temperature, are fitter for Im-

would improve upon.

In the melancholy Temperature.

WHAT the Antients call'd the melancholy Temperature, is only a greater Degree of the phlegmatick. In melancholy Constitutions the Complexion is naturally fallow, dark, and gloomy; they are of a faded faturnine Aspect, which is a fure Indication that all the Motions are depress'd beneath their natural Standard. You may perceive often, in the Countenances of fuch People, strong Symptoms of a labouring Imagination; they revolve long upon the fame Ideas; and if the Objects be of the dejecting Kind, and attended with great Losses or Disappointments, they strike deep

provements, which demands a deeper At-

tention to the Ideas of those Objects they

deep into the Soul, and croud the Fan- Chap. I. cy with despairing Thoughts. People incident to this Constitution, naturally, upon the Decline of Life, fall into the Hypochondriack Melancholy, if they have not a Tincture of it before.

These foregoing Temperatures often receive a Mixture in the original Frame of the same Constitution; from whence arise the different Degrees of Wit and Judgment in the same Habit; and this is the Reason, why we sometimes perceive such a surprizing Difference in the Genius of the same Person, and why some are extremely witty and extremely dull, both in their Writings and Conversations, at certain Seasons, as the biliose or phlegmatick Temperature happen more or less to prevail.

PART I.

EXCERCIPATION &

CHAP. II.

Of that Spiritual immaterial Principle we call the reasonable Soul.

HE foregoing Temperatures are only the different Affections of Matter and Motion, that differently modulate the Action of this immaterial Being, whereby it produces different Degrees of Wit, Genius, or Stupidity in different Individuals; and therefore, in order to discourse with the greater Clearness concerning the Principles of human Nature, I must entreat the Reader's Favour, to affume for certain, what he will perceive supported upon the most evident Reafons in the Sequel of this Discourse, viz. That every Individual obtains a spiritual Principle, that constitutes that immaterial Substance we call the reafonable Soul, and which, by the Affiftance of certain Powers, is capable of exercifing the feveral Faculties of Understanding, Reason, and the Memory,

Every human Individual has a spiritual immaterial Principle we call the Soul. in certain given Circumstances. I chuse Chap. 2. to express the Exercise of those Faculties by the Terms; in certain given Circumstances, because their Actions are limited, and depend on the regular Influence of Matter and Motion, while the Soul is oblig'd to animate those organiz'd Machines.

This spiritual, immaterial Being, as far as we can discover any Idea of its Action in this imperfect State, is a Power within us, by which every rational Individual perceives Things to be what they are; by which he abstracts, compares, and draws Inferences and Conclusions from Premises, according to the Relation, Agreement, or Disagreement that different Objects bear to each other. But here a Question very fitly may arise, viz. What is it that thinks and sets the human Species thus far above the Level of all other animated Parts of the Creation? And this I take to be the human immaterial Spirit, which is a Power diftinct from Matter and Motion, as will appear to any one, that, with Attention, confiders the following Arrangement of their

PART I. their different Attributes, Habitudes, and Affections.

By the clearest Reslection, we perceive, that this noble Creature Man confists of two Parts, Matter and Thought, or Soul and Body, evidently distinct in all their Operations, though both subsist under the same Form, and jointly constitute that Essence, that denominates him a rational Creature.

Of the diffinct Operations of Matter and Thought. THE Mind can reason, act, and think without any Assistance from the Body; nor can we conceive how the finest Fibres, the purest Blood, or most exalted Spirits, can ever inspire these Bodies of ours with Thought, Reason, and Restection; they are foreign to a Capacity of Thinking, and as distant from Restection as the very Bones that support the Machine, though subtilized to the highest Degree of Spirituality by all the Processes of Nature.

AGAIN, Can the Mind stop the Circulation of the Blood, retard the Beating of the Pulse, or obstruct the Mo-

tion

Matter and Motion? Once more: The Mind contrives, forms, and intends this or that, just as it pleases, without any Information from the Body, and drags those heavy Carcasses in Obedience to the Will's Direction, without the least Assistance from those passive Machines. Lastly, the Body digests, assimilates, and nourishes, without any exerted Thought of the Mind to command these Operations; and sickens, pines, and dies, not only against, but in Opposition to the Powers of the Mind to withstand these Accidents.

I therefore define the Soul, in relation to its purely spiritual or immaterial Nature, a self-moving Principle, capable of producing divers Thoughts and Motions in a System of Matter, properly modulated, to be directed by its Impulse.

So that I may safely venture to lay it down as a fundamental Postulatum, viz. That Thought can move Matter so predispos'd by the divine Power, as to be capable

PART I. capable of being influenc'd by the Direction of the Will; but what kind of Mechanism or Arrangement of Corpuscles is necessary to make up a System of Matter to be directed by Thought, or the Influence of the Will, is a Question that, I must confess, puzzles my Philosophy, and can only be refolv'd by the supreme Author of Nature, who has thus fearfully and wonderfully made us.

> THESE different Effects, so visibly perceivable in Matter, Thought, and Motion, will plainly support the Idea of different Existences, and consequently of different Substances, that is, it will be impossible to conceive how such different Effects can ever arise from the same organiz'd Body, independent of an immaterial Substance.

> WHATEVER, therefore, the Mind be, of this we are certain, that it can move the Body; that it can direct its Operations, and conduct it from Place to Place; and at the same Time is conscious, that it accompanies it through all these different Changes. WE

CHAP. 2.

We perceive further, by Experience, that the Soul sees through the Eyes, hears through the Ears, and is capable of being affected with Matter and Motion from those Objects, that are apply'd to the Surface of the Body.

Modus operandi, that is, how Thought can work upon Matter, or Matter upon Thought; but we very well know, that a diforder'd Body will make a diforder'd Mind; and vice versa, God Almighty, our supreme Author, having ordain'd, that the Affections of the Body should accompany the Mind through all the various Scenes of Pleasure and Pain, Joy and Grief, while the Soul is confin'd to this Globe.

These little Spots of Earth, human Machines, to which we are chain'd, while the Soul is oblig'd to animate these corporeal Organs, are the Cause why we cannot discover the Nature of this spiritual Being, and why its moving Power is so greatly suspended in its Action; but were it once unsetter'd from the Bon-

PART I. dage of these Shackles, it would naturally rise, and take its Seat in the proper Ubi of this immense Theatre, ordain'd the happy Mansion of Spirits, by the Sovereign Director of the Universe.

THAT the Soul is impassable, and consequently incapable of Change, was the Doctrine of our great Master Hyppocrates, and afterwards confirm'd by Aristotle, who taught, that all the Changes that happen to the Individual, arise from divers Affections of the bodily Organs; which oblig'd the foresaid great Man to declare, that were it possible to inoculate the Eye of a young Man into the Optick Orbit of an old Man's Head, and give it all the Motions of the former, the old Man would fee Objects with the same Vivacity and Clearness, that the former did; so that, according to his Doctrine, the Soul is the same in an Infant new-born, in a Person advancing in Years, in a Man turn'd of Fourfcore, that it is in a Body coming to its full Vigour and Strength. The bodily Organs, and especially those on which its Operations immediately depend, vary mightily, mightily, by which the Exercise of its CHAP. 2. Faculties are lessen'd or improv'd; but in respect of its own particular Existence, it remains the same Being, that it is, impassable to the Laws of Matter and Motion.

THE Capacity, therefore, and Improvements of the Mind, depend on the Powers of its Faculties, whose Exercise are more conspicuous, the more the finest Fibres of the Brain, in which they lie envelop'd, during the Infancy of our Being, dilate, unfold, and display their Action, which is the Reason, why the Ideas of Objects appear so faint and languid, and why we are so incapable of retaining any Store of those Ideas, that offer themselves to the Senses, in the first Years of our Childhood.

THAT the Improvements of the Mind depend on these favourable Opportunities, is demonstrable from constant Experience; for the Brain itself may be extremely finely form'd, both as to its Figure, Magnitude, and Confiftence; the Organs ferving the several Senses, exactly

PART I. exactly modulated for the Reception of Ideas; and yet no Improvements made, for want of Objects to enlarge our Knowledge upon; as is the Case of the poor Indians, that want nothing but Opportunities to render them equal to the most acute Philosophers in European Countries.

> EVERY Body, that has convers'd with Mankind, must be sensible, that their Thoughts, Inclinations, and Capacities, are infinitely diversified; from whence their natural Genius's are differently impell'd to divers Applications and Studies: from whence, therefore, arife this Change and Variety? From whence, but from the same Causes that diversify their Complexions? And from whence this Diverfity of Complexions, but from the different Motions of the Animal Fluids, which receive their Existence from the different Beating of the Artery.

> HENCE it follows, that the Difference between the lowest, most abject, and the highest, most elevated natural Capacities, must depend upon the different Degrees

of Motion coming to the Seat of the CHAP. 2. * common Senforium, with a greater or *Vid. Chap.vii. lesser Impulse; for I firmly believe, of Sensation in that this spiritual Substance we call the general. Soul, under all the Pressures of the most Oftheunchanviolent Fever, under the severest Symp- of the Soul. toms of the most raging Madness, and the highest Defects of the nobleit Senfations, is the same Mind, the same Self, the same Ray of Divinity, that Almighty God infus'd, when he form'd it a living Soul; and whenever the Hand of his Providence is pleas'd to divest it of these Walls of Flesh, in which it is immur'd, it will arise the same immortal Being, it was before Adam's Fall, capable of the same divine Knowledge, and of enjoying those everlasting Scenes of Happiness, our good God has promis'd to all those, that fincerely love and fear him.

THE Instruments, it's true, by which this immaterial Being acts, are often fo affected, that they feem to alter the Soul's Operations; but this Fault is intirely in the material Organs, that make wrong Representations of the Actions of her Faculties, through a mechanical

Force

PART I. Force involuntarily put upon their Motions; the Will, at fuch Times, not giving the least Evidence of its Determination.

WHEN a Man laughs, fleers, or screws up the Muscles of his Face, as in divers Passions, that arise from Anger, Joy, Grief, &c. the Soul neither cries, laughs, nor grieves; the Change is only in the Organs of the Muscles and Fibres, that our Thoughts determine into those different Positions to express those several Characters by.

All the Modes or Changes, that we can possibly conceive the Mind capable of, from those Objects that affect it, are only Motion, Thinking, Pleasure, and Pain; so that the Difference between an Idiot and the most enlarg'd Understanding, in relation to their different Capacities, I take to arise from the different mechanical Affections of Matter and Motion; their Souls are the same; both derive their Existence from the same Fountain, and, according as their Bodies happen to be more or less perfectly organiz'd,

ganiz'd, they exert these Faculties in a CHAP. 2. more or less reasonable Manner. And this is the Reason why those Faculties are most vivacious and witty in the biliose, more sedate and thoughtful in the fanguine, dull and heavy in the phlegmatick, and most abject and pensive under the Pressure of the melancholy Temperature.

So that, with Submission to Mr. Lock's Sentiments, concerning the Impossibility of rational Beings Thinking without perceiving it, there is a confiderable Dif- The putting of ference between the Signification of the the Essences of Terms Non esse; and; Non apparere esse; Beings, very dangerous in for many Beings confessedly exist, that Philosophical Enquiries. give no Appearance of their Existence: And certainly the Soul loses nothing of its Essence, when reduc'd, through the Indisposition of its Organs, into the Condition of a Changling, tho' it is thereby render'd incapable of exerting those Faculties of the Understanding, by which it apprehends its own Thoughts and Reflections.

PART I.

THAT Gentleman, I am perfuaded, would make a confiderable Difference between the Soul's Lofing its Capacity of Thinking, and its Power of exercifing that Capacity: The former depends on its real Existence; the latter on the Organs ordain'd by Nature for the Exercise of that Faculty; so that while it is confin'd to animate the Body, it only can exert these Faculties in certain given Circumstances, and these Circumstances depend on the regular Disposition of the bodily Organs.

The Personality of the Soul, therefore, has nothing to do with Consciousness,
which is only a limited Attribute, dependent on the regular Existence of this
spiritual Being, capable of Thought and
Reslection. Now Thought can no more
be said to be that spiritual, immaterial
Principle we call Self; than Motion can
be said to be Matter, which is only a
Power it is capable of being affected
with: Self is a Term that marks out the
Individuum of this spiritual Principle
to a particular Existence, whereby it is
necessarily

necessarily related to Time, Place, and CHAP. 2. other Circumstances, that concern that Being.

THE Term Person, therefore, must Person a Being comprehend the real Existence of that capable of Thought and spiritual Being we call Self, and not be Reflection, but is not Thought confin'd alone to Consciousness; for were or Reflection the Non-Existence of Consciousness ne- according to themselves cessarily to imply the Non-Existence of Mr. Lock's Principles. Person, which must be the Case, if Consciousness constitute the Essence of Perfon; then every Time the Soul ceases to think, which is as often as it fleeps without dreaming, the Person must neceffarily cease to exist, or be annihilated, and, confequently, will demand a new Creation to put it into Being again.

Mr. Lock, therefore, is under a very Mr. Lock egres great Mistake in attempting to confound giously mistathe Idea of Person with that of Conscious-ing to conness, since the former is a real subsisting of Person with Principle, and the latter only an Affecthat of Contion of that Principle, depending on the regular Exercise of the corporeal Organs. Consciousness, according to the nicest, critical Sense of that Word, is on-

keninattempt

PART I. ly Thought reflected upon, or a Perception that we do perceive; so that to discourse upon Consciousness is the same as to reflect upon Reflection; for of those Ideas only can we be said to be conscious, that we think upon with Attention, that is, that we redouble our Reflection upon.

WHAT it is that diftinguishes the Individuum of the Person divested of the Exercise of its Faculties, I shall not pretend to determine; that being a Point above the fublimest Imagination to conceive, and perhaps is impossible to us, in this imperfect State of Nature: But of this I am pretty well affur'd, that the Action of the Faculties are varied, exalted, or depress'd, from the different Modulation of the Brain and Organs that ferve the feveral Senses; and were the Matter that composes the corporeal Organs infinitely more fubtle, the Motion of the Soul's Faculties, that is, its Thoughts, would be infinitely more active, more knowing, and penetrating, than what they possibly can be during its Confinement to those gross Compages of human Bodies; and were it pos-Chap.2. fible to conceive two Persons, whose Texture of Organs were the same in all their Structures, Motions, and Configurations; their Sensations, Perceptions, and Reslections would not be different, upon Application to the same Objects.

They that are for grounding the necessary Existence of Person upon the Existence of Consciousness, argue after this Manner: Nothing can be intelligent, say they, any further than it has Thought; for that Thought it is, that distinguishes the Individuum of the Person, and marks it out to a particular Existence: And to talk of an intelligent Principle void of Intelligence, is Nonsense; because it is the Intelligence, that makes it an intelligent Principle; which Principle it can continue no longer than it preserves its Power of Intelligence.

This Way of Reasoning arises from our not distinguishing the Action of intelligent Beings from their spiritual Essence; and so we come to constitute the Faculties for the Substance of immaterial

D 4

Beings,

PART I. Beings. Were the Effence, that supports the Reasoning Faculty, extinct upon the Motions of a Fever, that often destroys the Appearance of Reason, it would be impossible to revive it again without a new Greation, which is a strong Argument, that the Soul exists the same through all the Changes it suffers from the Affections of the bodily Organs, and is capable of exerting the same Power of Thinking, according as the Motions of the Humours subside, settle, and return to their regular Standard again.

Upon these Grounds a Changling may support the Idea of Person as well as an Individual, whose reasonable Faculties are more regularly exercis'd, only the Person of the Changling will be less capable of exerting those Faculties, not through any Defect of that spiritual, immaterial Being within, but only through an irregular Insluence of the Brain, upon whose regular Motions the Exercise of those intellectual Faculties are supported, as shall more clearly appear when we come to treat of the Exercise or Action of those Faculties.

CHAP. 2.

What Mr. Lock is pleas'd further to argue concerning two different Conscious-nesses informing one organiz'd Body, and consequently uniting two distinct Persons under one common, human Appearance, is nothing to the Purpose; for to attempt to illustrate any philosophical Point by an Hypothesis, that makes a Thing, impossible in itself, possible in Nature, is to build Castles in the Air, and say any Thing at Pleasure; which way of Reasoning ought not to be admitted in Debates upon philosophical Subjects.

To conclude this knotty, thorny, perplexed Subject; The Soul is a spiritual Being, that subsists, knows, and acts. The Question then is, Whether when it ceases to think, know, or act, it necessarily ceases to exist? If it does, then, upon every Time it goes to sleep, it is annihilated; then, upon every Time it awakes, and returns to think, it is a new created; for the suspending of a Power to act or think, is the same as to annihilate that Power, when its very Essence is conceived to consist in Action and Thinking. These

PART I. are the unavoidable Consequences, that necessarily arise from this Way of Reasoning,
when we apply Terms to Powers, that are
incapable of supporting their Existence.

ERECERCIA DATE OF THE

CHAP. III.

Of the intellectual Faculties of this spiritual immaterial Principle.

ftance, consider'd in itself, and separately from the Body, we can discover but a very faint and incompleat Idea: Our Knowledge then will be only of its Faculties, which are Perception, Reason, Understanding, and the Memory. These Powers of the Soul are all organical, and depend on the Constitution of the Brain, and regular Influence of the Senses, for the Clearness and Distinctness of their Actions, as shall appear more fully hereafter.

In treating of intellectual Beings, we ought to be highly careful never to multiply

tiply the Number of their Faculties CHAP. 3. above, what the Providence of Nature has given them; and where we perceive different Degrees of the same Faculties, there to express it by Terms, that imply those different Degrees; and for this Reason the Imagination and Fancy, to me, feem nothing more than the Understanding less attentive to those Objects it, at certain Times, does contemplate.

PERCEPTION is that Faculty whereby Of the Faculty the first Notices of all external sensible Objects are let in upon the Soul; it is the Origine of the Materials, that compose all our Thoughts, which are treafur'd up by the Memory to be reviv'd at the next Reflection.

REASON is the Sovereign Power of Of the Faculty the Soul, by which we discover the A- of Reason. greement or Disagreement of all external, fenfible Objects, and the Relations, Habitudes, and Connexions they bear to each other: It is that Faculty by which we abstract, compare, and draw remotest Consequences from self-evident Principles; and may properly enough be call'd

PART I. the Refiner of our Thoughts, and that Power by which we are distinguish'd from the brutal Class of the animated Creation.

Of the Understanding and Wisdom.

The Understanding is the noblest Faculty of the Soul, and that which, by way of Eminence, expresses our Wisdom; which is only Reason and Understanding in Perfection. It judges of the Agreement or Disagreement of Ideas, and discovers, after the last Efforts of our Reason, the Truth or Falshood of any Proposition, we put concerning the Natures of Things in this imperfect State.

Of the Memory. The Memory is a Power of the Soul, by which we revive the Ideas of Objects and Actions, that are past, and bring them into a View of the Mind, as if present. This Faculty, according to Tully, is twofold; the one natural; the other acquir'd: But whoever is pleas'd to take a serious View of the Memory, will easily perceive, that the artificial, or acquir'd, is only the natural Memory improv'd by continual Application and Study.

So absolutely necessary is this Power CHAP. 3. of the Mind, that, without it, no Degrees of Knowledge scarce could subsist in the Understanding: For the upper Rooms of this curious Cabinet are furnish'd with Wisdom; from what we have learn'd; but if there was no Remembrance of past Things, as there is no Knowledge of Things to come, fo the Knowledge of the Mind must be confin'd to the Ideas of Things present, a Life scarce arising to the Dignity of Brutes.

THE Memory, therefore, treasures up all the Ideas, it has no present Occasion for, in a proper Repository, to be brought into View at the next Reflection; and it is furprifing to conceive, with what Rea. diness some Persons can relate all the different Words of divers Languages, give their different Characters, Senses, and Significations, besides an almost infinite Variety of Faces, Schemes, Buildings, and other sensible Objects, that are continually impress'd upon the Organs of the Senses; yet this immense Crowd of different or opposite Ideas shall so exactly subsist in the Memory, that the Mind, upon

PARTI. a sudden Command of the Will, or a casual slight Hint of the Soul, shall in one Moment revive a set Discouse, confifting of different Words, Circumstances, and Things.

> THAT the Memory is a Faculty improvable, in certain given Circumstances only, is evident from the faint Impresfions that all Ideas make upon the Minds of both Infants and very old People, whose Images are liable to be easily eras'd, because their Impressions do not reach the Mind with an Impulse strong enough to excite a full Conception of the Object: And they feem evidently not to do this, because the Fibres of the several Avenues or Senses, that lead to the Seat of the common Senforium, are too much relax'd under a State of Infancy, and too much contracted under that of old Age, whereupon the Passions abate, and all the Faculties are but clumfily perform'd.

Of the Sensations in Infants, and why guid.

In Infants the Machinula of the Nerves and Fibres that compose the Brain are nathey are solan- turally so far relax'd, or stand at such a Distance from each other, that they scarce permit

permit the Ideas of Objects to take Pof- CHAP: 3. session of the Mind, from the Faintness of their Appulse; which Machinula approach nearer and nearer to each other, and are fusceptible of smaller Impresfions, as the Child advances in Years, till at last they arrive at the Point of their Perfection, which I take to be from the twenty fifth to the thirty fifth Year of our Age, varying this particular Period, according as the Constitution of the Habit is more or less biliose, phlegmatick, or abounding with the melancholy Humour. At this Time the Wit, Genius, and whatever else depends on the finest Touches of the Sensations, are in their fullest Zenith.

THESE Machinula that support the Of the Sensa-Sensations recede from this Standard, or Men, and why Point of Perfection, as the Person more they are so imand more advances in Years, till, in old Age they are fo closely purs'd up, as scarce to give the Mind any Intelligence from the strongest Impressions of Objects. In the Extremes of old Age they are so strongly contracted, as to stop up and obliterate all the Avenues to this noble thinking Being. BUT

PART I.

But this I must observe, that the Machinulæ that compose the Fibres of the Brain, do not arrive at their Centre of Perfection, so early as those that compose the Fibres of the Nerves, which is the Reason why a longer Time is necesfary to compleat our Understanding and Judgment, than our Wit and Genius; the former of which I think do not arrive at their full Maturity, till towards the fortieth or forty fifth, and in some not till the fiftieth Year. I do not fay, but that a Man may have a very large Share of Judgment before any of the foregoing Periods; but I am firmly of Opinion, that the Time of its Perfection is not fully compleated, till towards the forty fifth Year, though it must be confess'd, that some, in spite of Age, live Babies all the Days of their Life.

Thus far we have convey'd our Views, from the lowest Fibre of Sensation, through a Series of Causes and Effects, till we arrive at the supreme Faculty of the Understanding, which, as a Judge, determines

proper for a rational Being to pursue. CHAP. 3.

THE Will comes last, and, as the Top of the Will. Faculty of the Soul, determines the Man to Action, after the Refult of Reason, Judgment, and the Understanding. Wifdom confifts in acting upon reasonable Motives, and the Understanding discovers those Motives that may be most reafonable for a rational Creature to act upon; fo that tho' the Impulse, with which the Fibres impress external Objects upon the Passions, may have a Power strongly to impel the Mind towards these Objects; yet the Will is capable of counter-acting all these Motions of of the Passions, whenever the Mind is pleas'd to exert its Faculties in a proper Manner. This proper Manner of Acting in a regular Scheme of Life, arises from the Power, that the Will has to execute the Determinations of the Understanding, after balancing the Conveniences and Inconveniences, that attend the Issue of any Action, as far as it is in our Power to conceive.

PARTI.

THE Understanding lets us see the Advantages or Difadvantages, that follow upon our Pursuit of any Objects; and the Will gives it Sanction for their Execution. But in our Pursuits of all irregular Actions, the Execution of the Will precedes the Inquiries of the Understanding; that is, the Mind acts upon Passion only, without any Reference to the Laws of God or Nature; that is, he follows, in his Actions, the Dictates of his sensual Appetites, which are fure to lead him wrong; and, when indulg'd to Extremes, fail not to bear down both the Understanding, Reason, and whatsoever else is facred in the Animal OEconomy, and, from the noblest of all Creatures, reduce him upon a Level, or rather beneath the Condition of a mere Brute.

According to this System, then, the Understanding is the supreme Faculty, and receives its Knowledge or Discoveries of Truth from the Assistance of Reason, which is a Faculty next to it in Dignity; and Reason arises from our Thought, which, in the Absence of Objects, is that Faculty we call the Memory; and our Thoughts

we receive from our Perception; and Per- CHAP. 3. ception from the Ideas that come in by Sensation; and these Sensations are furnish'd to the Soul from the Impressions that Objects make upon the feveral Organs of the Senses: And this is the Order of Nature, from whence the Soul itself comes posses'd of all that Store of Knowledge, that differs one Man from another.

From the Connexion of the foregoing Reasonings, it clearly appears, that the whole Series of Faculties, that make up this System of humane Thoughts, are all depending on each other; fo that though the Faculties be divers, yet the Soul preserves the Unity of its Essence amidst the Variety of its Operations.

Now as these several Faculties subsist, Arguments to and as they could not subsist without a prove the Ex-Subject, therefore we justly conclude immaterial that they are supported upon a Substra- tine from tum; and this Substratum the most in-Matter and Motion. genious Philosophers have dignify'd with the Title of an immaterial Substance, and this Substance we call the humane Soul.

PART I.

AND that none of the foregoing Faculties alone can possibly be that Ray of divine Light, that shines thus bright within us, will appear evident from their being dependent on each other, and all fubordinate Ministers to the Soul itself; nor can it be Matter, or any of its Arangements, for Reafons I have given in Page 26. Nor can a Composition of Matter and Motion, or any of their Affections, be made to think, as this spiritual Principle in human Bodies can do; because it's impossible, in the Nature of Things, that Matter and Motion, in themselves incogitative and void of Sense, can become cogitative and fensible only by Division and Change of Place, which is all that Motion can produce in any System of Matter unorganiz'd, for the Reception of a spiritual immaterial Being; nor can it be all or any of the foregoing Faculties superadded to certain Parcels of Matter, according to a Suggeftion of Mr. Lock; for that would either be to destroy the Essence of Matter, or, at least, to constitute a new kind of Matter, distinct from all other kinds of Matter, that we know of in the Creation.

It necessarily follows then, that That CHAP. 3. which thinks is the foregoing Faculties superadded to an immaterial Substance; this immaterial Substance must reside in the Brain some how, and consequently have its proper Vbi; and though it may be difficult, or rather impossible, exactly to determine the Seat of its Residence, yet the Center of the Brain, from its Structure and Mechanism, seems most capable of lodging this divine Guest; for there, most probably, is plac'd the Seat of the common Senforium; there the Organs of the feveral Senses reach, and thither they convey all their Reports of Matters, that concern the Mind's Cognizance.

And thus the God of Nature has form'd us; and thus he has ordain'd, that Material should obey the Direction of immaterial, and immaterial of material Beings. Thus Matter moves Thought, and Thought Matter; and thus the intellectual Faculties are affected with Matter and Motion, and subject to Pleasure and Pain, both from Objects that have, and those that have no immediate Contact with the Body, but only act at a Distance.

CHAP

PART I.

AGRECARDER DIES

CHAP. IV.

Of the Exercise of the foregoing Faculties, in producing the natural Principles of Wit and Genius.

I T naturally falls in my Way here to speak of Wit, after discoursing of the several intellectual Faculties, because it is a Power or Habit of the Mind arising from a Quickness or Readiness in their Exercise, and demands a peculiar Structure, Mechanism, and Modulation of the Brain, for its ready Production. This Habitude can never be learn'd, but is the peculiar Gift of Nature, whereby its Proficients are enabled to express the finest, softest, and tenderest Sentiments upon every Object, in the most surprizing, lofty, and elegant Manner.

Definition of Wit in Conversation. Wit then, abstractedly consider'd in itself, and as it relates to Conversation in general, I define to be a Readiness of expressing the most delicate Sentiments in the finest Manner.

But

But in order to enjoy this happy Dif- CHAP. 4. position of Genius, it is necessary that his What Disposi-Mind be endued with a polite, elegant tion or Action Turn of Thought, a Quickness of Me-cessary to form mory, and a noble, graceful Manner in acompleteWit, the Delivery of his Sentiments; for unless the Organs of the Memory readily revive agreeable Ideas, and unless also there be a Quickness, and Facility in the Expresfion, he will fcarce pass for a Wit of the first Class or Standard.

of the Mind ne-

WHAT Disposition, therefore, it is in The Disposithe Brain, Nerves, and Organs of the Ha- tion necessary bit, that furnishes the Mind with those Organs. lively Ideas, that fo agreeably furprize Mankind, may not be a Subject unworthy of our Enquiry.

WE observe that all Wit, or those Prettinesses of Expression, that so singularly please in Conversation, arise in the Speaker from a strong Impulse of the Ideas made on the Seat of the common Sensorium. Now it is impossible that this stronger Impulse can be made on the Seat of the common Senforium without a plentiful Secretion of animal Spirits; or that

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there

PART I. there can be a plentiful Secretion of animal Spirits to convey the Ideas of Objects, without the glandulous Substance of the Brain be tight, firm, and elastick; fo that in order to form a fitting Habitation for the Residence of a finish'd Wit, it is necessary, that the Arteries be greatly fpringy, the Blood eafily moveable, the Secretion of the Spirits naturally large, and the System of the Nerves screw'd up to the highest Degree of Elasticity their natural Standard will admit.

> From a System of Veins, Nerves, and Arteries, thus constituted, it often happens, that the Sallies of Wit are involuntary Starts, and arise from extraordinary Motions of the Soul, which elevates the Faculties above their natural Sphere of Action; that is, when the Impulse of the foregoing Instruments are brought nearest the Point of their Balance, that is, the Center of their Perfection; then it is, that the Mind is in its highest Elevation, the Faculties expanded to their loftiest Height. And this is the State of the Mind in those extremely fine Descriptions, that so sensibly affect us in poetick Writings,

the

the very reading of which shall surprize CHAP. 4. the Soul with very great Emotions. All those sublime Flights and extatick Vifions, that elevate the Soul above itself, whereby it towers above the Clouds, foars into invisible Worlds, and discovers Beauties, in that vast immense Theatre of the Universe, indiscoverable by meaner Capacities, owe their Rife to this due Modulation of the Solids, to this happy Structure of the Fibres.

WE generally observe, that the most elevated Wits, or those of the sublimest Class, are sensibly affected with the least Difrespect; their Passions are all Tinder, that takes Fire from the smallest Spark, and blaze into a Flame at the least Refentment; like Razors exquisitely finely fet, that foon lose their Edge, they are eafily disconcerted from the least Changes in Nature.

Wir in Business, or a Readiness to trans- Of Wit in act Affairs, differs not from Wit in Con-Business. versation, and is only the applying our witty Thoughts to Action, according as the Exigence of our Affairs shall differently

PART I. rently demand our Application; and as the former confifts in expressing our Thoughts, with Quickness and Vivacity in an elegant Manner; fo this latter in readily putting those Thoughts in Execution; and therefore demands the Affiftance of Judgment to aid the Contrivance of its Schemes, and balance the Impetuofity of the Passions; and for this Reason we not improperly term Persons of this Complexion judicious Wits, or Men expert in Business.

> Now, the Mind, by Virtue of its thinking Principle, having a Power to contemplate any of its Ideas, will certainly entertain those, that will give it most Pleasure; and those will afford it generally the most Pleasure, if they are of the pleasing Kind, that came in last, because they are new; and this is the Reason why witty People are seldom long pleas'd in the same Circumstances; nor indeed is it possible they ever should, since different Scenes of Pleasures are continually soliciting their Senses with the same Degree of Impulse,

GREAT Wits also seldom are remar- CHAP: 4. kable for a large Share of Judgment, or any tolerable Method of just reasoning and ranging these Ideas, that crowd so fast upon their Imagination; and to this Origin I impute that Fickleness and Changeableness of Temper they are so apt to be affected with; for Reason and Judgment, where they exist in any eminent Degree, require Thought and Attention on the fame Ideas, especially when we would employ those noble Faculties in discovering the more fecret and hidden Properties of material Objects, and what Relation they bear to the rest of the Universe; but for these Enquiries, the most refin'd Wits have not Time, from the Succession of Ideas that crowd upon their Minds equally ftrong, and equally affecting; and as the last are generally the newest, and the newest, from the Desire of Novelty, always the most pleasing, so it comes to pass, that they change their former, for these Ideas, that compose their latter Thoughts, and govern their Actions in Life accordingly.

Books.

PART I. WIT in Books requires that the Lines be natural, and the Subject well chosen. Poetry is the noblest Manner of Writing, that the Faculties of the Mind can engage upon: It affords the most surprising Flights, upon all the various Scenes of Art and Nature. In Writings of this Kind, intended to please, the Genius should always rife in Proportion to the Dignity of the Matter, and fling out the boldest Flights on the fublimest and most important Incidents. When a Start of the Imagination has flung out an uncommon Sentiment, it depends on an After-Thought to polish, refine, and purge it from that Dross, it might have contracted in its first Conception. This calls for the Affistance of Judgment, which is always necessary to finish a complete Poet.

> If a Man talks well, and writes ill, it's because the Ideas of the Subject he treats of, pass the Mind faster than the Memory can distinctly retain their Connexion; so that the Chain of his most beautiful Thoughts are broken and confus'd, before he can commit them to Paper in that elegant Order they first arose to his View.

MANY

Hypochondriack Melancholy.

MANY Persons will talk exceeding well CHAP. 4. upon any Subject, entertain you with a fine Flow of Words, a Volubility of Tongue, and yet write very ill. This Incapacity of Writing arises from the natural Springiness of the Fibres, that compose the Brain; whereby the Ideas of Objects are struck on the Seat of the common Sensorium with a strong Impulse, which being fucceeded by others equally as strong, and these by others equally affecting, it follows, that though the Mind can take hold of them to discharge in Vollies of choice Epithets, or fmart Repartees; yet from the continual Impulses is the Memory unable to retain them in that natural Order necessary to supply the Difcourfe with Distinctness and Clearness. And hence it happens that Persons of this airy Cast of Mind are but indifferent OEconomists; for the successive Impulses, being strongly struck on the Fancy, violently impel their Inclinations to divers Schemes at the same Time; whereby they are constant to nothing but Inconstancy it felf, promising themselves golden Mountains in this, in that, and every Scheme they undertake; though nothing profPART I. pers through their Fickleness and Unsteadiness of Temper.

From whence the Miscarriages of our Projectors arise.

AND to this Origin, I think, we may impute the Miscarriages of most of our Projectors; for though they are often endu'd with Talents excellent at Invention, yet either through a Miscalculation of the Expences necessary to conduct the Enterprize, or for want of Judgment to balance the Impetuolity of their Passions, and keep them fleady to the same Project once begun, it often happens that most of their well-concerted Schemes come to nothing. For this Reason we frequently observe, that those, that are remarkable for a Mastery in the superior Sciences, are generally most strongly impell'd towards Wine, Women, and Musick; that is, these Objects have a greater Influence over their Passions, than those cast in a more abject Mould, or whose Fibres are less curiously modulated, because the feveral Organs of their Senfes, are more delicate in their Texture, and lie opener to the Enchantment of those deluding Objects, through a more exquifite Relish in their Sensations; and it

Experience, that not only your elevated Wits are thus prone to their Pleasures, but the most excellent Artists of the lowest Class of Mechanicks, can never be prevail'd on to work at the meanest Occupation, so long as they have got a Penny to spend.

YET after all, I must confess, that there seems, to me, some peculiar Oddities in a Genius of the finest Cast, not accountable from the Laws of our Philosophy; but this Concession no ways destroys the Grounds of their depending on mechanical Powers, but only discovers our Ignorance and Want of Judgment, to ex-

plain these singular Properties of Wit

agreeable to the Tenour of those Laws.

To conclude: From these Reasonings and Arguments it evidently appears, that the finest Genius, that the World could ever boast, depended on the due Modulation of the Fibres. From this proper Stricture of the Nerves, arose those fine Composures, that our Countryman Shake-speare naturally writ, and which still con-

tinue

PART I. tinue to please our Gentlemen of the finest Taste. To this happy Mechanism of the Organs we owe the Fire of Homer, the Floridness of Virgil, and the Strength and Beauties of Milton. These Men, all in their Times, were Originals, and excell'd in the finest Way of Writing upon the fublimest Subjects; and very few of their Followers have ever been able to equal their excellent Compositions.

CHAP. V.

Of the Exercise of the foregoing Faculties, in producing the natural Principles of Stupidity.

HESE two Subjects, concerning Wit and Stupidity, I have chose to place in the nearest Distance to each other, that, like the Shades and Lights in Painting, the Reader may more diftinctly view the Difference between the Principles that support a fine natural Genius, and those that affect the Organs of the rational Faculties with a Slowness, Dullness, and Heaviness in their Exercise; and I question not, but that it will be CHAP. 5. discoverable, from the following Observations, that it's highly probable, I dare not say certain, that the sole Difference between the most elevated Genius, and the most abject Stupidity, depends more upon the peculiar Structure and Harmony of the Fibres, than what perhaps hitherto has been taken Notice of.

I shall therefore, in this Chapter, make it my chief Business to discover, how, from many accidental Causes, the Exercife of those sovereign Faculties may be divested of their Rationality; and the brightest Wits, and most exalted Understandings, from the mechanical Affections of Matter and Motion, reduc'd upon a Level with the most abject and unintelligent Changlings; and if fuch Changes are possible in Nature, and do often happen under divers Diseases, it will be a well supported Probability, that the Center of Perfection, in Relation to the Exercise of the intellectual Faculties, may not fo much depend on any Inequalities of Knowledge in the Faculties themselves, as in the different Motions of their Organs, while the Soul is oblig'd to animate these corporeal Machines. And, that this is fo will F

PARTI. will appear more than probable, from the Diforders that necessarily ensue in the Exercise of these noble Powers, when ever the Figure, Motion, and Texture of the Brain, or Organs of the several Senses, are from any Causes disconcerted.

> Do we not daily see, in the most familiar Instances, that a Man of the brighteft Parts, and most enlarg'd Understanding, shall have all his Wisdom and noble Endowments disconcerted by the Tyranny of a nervous Fever, or a cafual, fudden Fit of Lunacy; and under these Presfures, how awkwardly does he exercise those Powers, with which, but a little before, he charm'd Mankind, was able to penetrate into the fecret Recesses of Nature, and discover the Laws of Beings, lying in their primitive Beds, scarce yet form'd into their proper Species: Yet even now we behold him, divested of the Exercise of his Rationality, can we fay that his Soul differs from what it was before? Not at all, certainly; remove but the Clog of Matter that the Motion of the Fever, or Starts of Lunacy, laid upon the Organs of the Brain,

and the regular Operation of all the Facul- CHAP. 5. ties returns, his Reason brightens, his Parts revive, and he becomes, in every Respect, the same amiable Person he was before.

How natural therefore is it to conclude, from the foregoing Reasonings, that an Idiot, or Changling, as Mr. Locke is pleas'd to express it, is born with the same Clog of Matter on the Organs of his Intellectuals, (I do not fay the fame Fever, for the Avenues of the Brain may be stopp'd without a Fever;) that will accidentally reduce the wifest Man into the Condition of a mere Natural; and that the Want of Reason, in these Creatures, does not arise so much from a Want of a reasonable, human Soul, as the Want of proper Organs to exercise the reasonable, intellectual Faculties.

Mr. Everard, formerly Apothecary A surprizing in Milk-Street, was pleas'd to tell me, Woman that that he perfectly knew a poor Woman recovered the near Namptwich in Cheshire, that had been les, after the subject to Fits of Lunacy for near twenty had been dif-Years. This Woman, as she was wan-twenty Years. dring among the Rocks and Mountains near that Place, accidentally flipt from

the

PART I. the Ridge of a steep Hill, near 150

Foot high, and in the Fall broke her left
Arm, but received this Advantage in Recompence, that ever after she recover'd
the perfect Use of all her Senses.

This furprizing and fudden Change could happen no otherwise, but as the Shock, she receiv'd in the Fall, turn'd her Brain right, that, by some accidental Stroke before, had been turn'd wrong; or at least the Concussion she receiv'd in the Fall open'd some Avenues of the Brain, whose Obstructions before interrupted the right Display of those Organs, on whose Rectitude the rational Exercise of the intellectual Faculties had their principal Dependance. Had this Woman been born with the same Pressure upon the Organs of the Brain, that she suffer'd for the twenty Years before the Fall, no doubt, but that, according to Mr. Locke' Principles, she would have had no more Title to Humanity, than a Monster, whom I take to be a Creature fo mishapen in its Members, as renders it proper to be struck out of the List of the human Species.

But to enforce this Point more clear- CHAP. 5. ly, and prove that this Exercise of the Faculties is intirely dependant on the Exercise of the Solids and Fluids, I shall beg leave just to touch upon the Causes of those irregular Turns of Thought, and false Appetites that often affect young Girls under the Green Sickness, and why they covet Things disagreeable to their Natures, and which they themselves would loath under a found State of Health.

Who would think it possible, did not of the Change daily Experience convince us of it, that of the Appetite a thin, pale, meagre Girl should covet Green Sicktoasted Coals before wholesome Food, or prefer the cranching of dirty Lime and Tobacco Pipes before the most delicious Viands, or the harsh Noise that arises from treading Cinders under Foot, before the most melodious Musick? and yet in Face I am able to produce numberless Instances in Confirmation of these Cases. And that these strange and unusual Defires arise only from a perverted Motion of the Solids and Fluids, is clear; for if, by proper Applications, you recover these bodily

PART I. bodily Organs to their regular Standard again, these unnatural Desires, and strange unufual Fancies will vanish of their own Accord.

> I SHALL conclude these Reflections with one of the most surprizing Histories that perhaps ever was taken Notice of before. It is of a Gentleman that was wittiest when he was mad, and filliest when he was fober; that is, recover'd to the natural Exercise of his Organs again. In this Case the accidental Shock that often turns the Brain wrong, shov'd his right, and recover'd fome Glimmerings of Wit and Genius to him, that was born but one Remove from a mere Natural.

A very retory of one tiest when he was mad, and was fober.

In the Times of Henry III. of France. markable Hif- there happen'd to reside at Court, a young that was wit- Gentleman of a very graceful Deportment, but whose Conversation was exfilliest when he tremely low and trifling; yet for this outward Appearance, this Mimickry, and Shape of a Man, feveral Court Ladies could not but entertain a very high Value and Esteem. It so fell out, as he was one Night returning from a Ball, that

that a young Gentleman tript up his CHAP. 5. Heels, and gave him fuch a Bang upon the Scull, as greatly disconcerted his Brain, and flung him into Fits of Lunacy; but however, during the Intervals of his mad Fits, he acquir'd fuch a Knack of ingenious Raillery, as greatly delighted the whole Court. The French King, extreamly pleas'd with this new Change, gave especial Orders to his principal Physician, that, if possible, he would recover him from those Fits of Lunacy, that render'd him inconversable to the Court. The Physician purfued the King's Instructions, and in a little Time Success answer'd his Expectations; but no sooner was the habitual Temperature of his Body restor'd, but the same cringing Softness and Stupidity return'd with it; so that all those fine ingenious Turns, and witty Starts of Fancy, vanish'd into Air, to the no little Disappointment of his courtly Admirers,

FROM the Reasonings and Circumstances of the foregoing Case, we clearly discover, that those Changes that in others often disconcert the Brain for the

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worfe,

PARTI. worse, in him happen'd for the better: This Shock, or Fall, gave him fome Glimmerings of that Light, which according to the original Constitution of his Organs, he could never naturally enjoy in this Meridian of his Being; and if the Blow had been a little stronger, and ftruck the Seat of the common Senforium a little more askew, or parallel to the Axis of the feveral Organs of the Senses, who can doubt, but that his reasoning Faculties would have shone out in their fullest Lustre? But then the fine Deportment of his Carriage, the graceful Mein of his Person, and former obliging Air, in all Likelihood, would have been greatly disconcerted, and suffer'd in the Change.

And here a Reason is suggested to me, why some Individuals are never capable of any tolerable Degree of Knowledge, that may set them above the Level of a Changling, because those Organs, on which the Improvements of the Mind depend, are incapable of ever being unfolded through a natural Desect of the Impulses necessary to resolve the Obstructions, in those finest Fibres of the Brain

Brain, on whose Freedom the noblest CHAP. 5. Sensations have their Dependance.

This Impediment sometimes arises from the System of the Arteries being naturally too much contracted or relax'd; and then it is owing to a Fault in the Habit; but it may take its Origin from an over Laxness in the Fibres of the Brain, whereupon there will follow, a natural Stupidity for Want of a sufficient Appulse of the Object, or for Want of a ready Power in the Organ, to transmit that Appulse to the Seat of the common Sensorium.

The same noble Endowments will be but clumfily exerted, in Case these sinest Fibres of the Brain be too much loaden with a serose, phlegmatick Parenchyma, afforded to the nervose Fibres, to prevent their too exquisite Sensations; for then it will in some Degree interrupt the Transmission of Objects to the Seat of the Understanding, upon which there will follow, a Slowness, Dullness, and Heaviness in the Capacity, to apprehend the Ideas of these Objects.

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SOME

PARTI. Some Infants are naturally born with dull and heavy Intellectuals; that is, the Mind cannot display its natural Faculties, through a natural Imperfection of the Organs; but these natural Indispositions are often greatly remedied from Application and good Masters: And this Observation we frequently see verify'd in the Issue; that dull heavy Boys often come to be able and experienced Men. So that Stupidity only arises from a natural Depravity of the corporeal Organs, whereby they are incapable of conveying the Ideas received from Senfation, to the reasonable Faculties with that Clearness necessary to produce Desires in the Mind; that is, the Harmony or Beauties that appear in the Objects, that adorn the Universe, have not a Power to affect their Faculties, through Want of proper Organs to display their Beauties. If this natural Incapacity or Defect arise from Obstuctions in the nervous Fibres, Children fo born will be little more intelligent than mere Naturals.

> From these Observations we clearly discover, that the Soul is invariably the fame ; 2 W. O. E.

fame; and that it is only the bodily Or- CHAP. 5. gans, and their right or wrong Disposition, that alter the Exercise of its Faculties, and give us those different Ideas of the different Capacities of Mankind in Relation to their different Degrees of Knowledge and Stupidity: And I firmly believe that, were it possible to conceive two Persons in whom the Texture of the Brain, Nerves, and other Circumstances, were modulated in equal just Proportions, as to their Matter, Motions and Impulses, that their Actions, their Capacities, Inclinations, and Manner of Thinking would be the same; and the Individuum of the Person, would only be supported from the particular Exiftence of the different * Vbi, and the different Objects they conversed with.

To conclude: The Soul itself, by the its Functions; Assistance of its Faculties, in a regular Author is in-System of Organs, has a Power of in- so he chuses to tending or remitting the Circulation of the express his Ig-Blood; and consequently of contracting Word; because or relaxing the Motions of the Fibres on out the Exifwhich that Circulation depends; and if tence of a Be-To, then it must have a Power of con-cular Time,

* By this Word Ubi here, is intended that particular Point of the Brain where the Soulrefides. at least displays of which, as the tirely ignorant. norance by that it best marks ing to a parti-Place, and other tracting Circumstances.

PART I. tracting or relaxing the Motion of the Nerves, that ferve any of the Senfes, and confequently, of improving the Ideas that come in by any particular Sense it is pleased to view with Attention. This Attention to those particular Ideas, like Motion to the Body, so restores the Nerves of any particular Sense, that the Mind is thereby render'd capable of judging of Objects with greater Exactness: And this Capacity of Judging we call acquired, which depends on Study and Application; and hence arises the Difference of Mens Inclinations to different Arts and Occupations, according as the Mind shall naturally, through any of the Senses, discover greater Beauties or Pleafures in one Art than another, which accordingly gives a different Determination to the Will.

> So that according to this mechanical Way of reasoning, the Excercise of the rational Faculties, viz. of Judgment, Understanding, and Memory, depends upon the Clearness of our Conceptions, and the Clearness of our Conceptions on the Distinctness of our Ideas, and the Diftindness,

tinctness of our Ideas on the Exactness of Chap. 5. our bodily Organs; whereby the several Senses are render'd capable of transmitting their Ideas to the Understanding, with all the Beauties, that they possibly can receive from the Objects of Nature.



CHAP. VI.

Of the Rise, Progress, and Action of the Natural Passions, and their Influence upon human Bodies.

HAVE chose to treat of the Passions next to the intellectual Faculties of the Soul; because several of them seem to have a very near Connexion and Dependance on the Exercise of these Faculties, and to be produced into Action by that Medium, that conjoins Matter and Thought, or tacks these Faculties to the System of corporeal Organs.

All Changes in our Thoughts arise How the Pase from Desires, and Desires intended pro- sourced duced duced.

PART I. duce the Passions. The Passions thus' arifing, receive confiderable Force from divers Objects, that have a Power immediately to alter the Exercise of the Faculties, or the immediate Determination of the Mind, by first altering the Motion of the Fibres; for though the Mind continues permanently the fame, and is invariable in its Existence; yet if an Alteration is made in the Organs by which it acts, it will, as much, vary its Operations and Powers, and confequently appear, the fame to us, as if an actual Alteration was made in the Substance of the Soul.

> Now what that Medium is, whereby the Mind displays those Passions upon the Body, and alters the Circulation of the Blood, the Motion of the Fluids, and Vibration of the Nerves and Arteries, may not be a Subject improper for our Enquiry. I was, indeed, of Opinion in my New Theory of Physick, that the Passions themselves were that Medium that conjoins Matter and Thought; but' then this Question recurrs, viz. What is it that flings these Passions into Action? that is, what Instrument does the Mind,

Mind, or its Faculties, make use of in CHAP. 6. exciting these Commotions, Agitations, or Conflicts in the Soul? And this I take to be a most subtile fine Animal Æther, of different Elasticities, agreable to the different Springynesses of the nervous Fibres.



By this Animal Æther, I mean no more than Matter resolved into the last Degree of Fineness, after it has passed through all the Changes it is capable of in the Animal OEconomy; which is different according to the different Constitutions of different Individuals. To this Animal Æther the Passions owe their different Activity, which is the Reason why bilious Conftitutions are most passionate, the sanguine less active, the Phlegmatick more compos'd, and the Melancholy degenerating into an abject Fearfulness; and hence we discover why the same unwelcome Objects coming to different Persons shall differently affect them. A Person hears evil News; upon which he perceives Woe and Misery ready to break in upon him; he finks under the Weight, and is unable to bear up under the Pressure. Tell

PART I. the same unwelcome Circumstances to another whom they as equally concern, and he shall receive the Disclosure with Courage, and cast about how he may best extricate himself out of these Dissipations.

This different bearing up, under the same Missortunes, from the same Objects, certainly depends on the different Structure of the Fibres; and that different Springyness of the Animal Æther, which so fortifies the Mind of this latter against the impending Storm, that the threatn'd Danger cannot deject him, while the former slags, and falls into Despair for Want of that Force or Elasticity, in the Animal Æther, to support the Faculties, balance the Mind, and keep the Passions steady.

To support, therefore, this Article of the Passions on the clearest Foundations, I shall beg Leave to consider the Difference between Courage and Fear, and how these two Habitudes of the Mind may be changed, from different accidental Causes acting upon the Organs of the Body.

After

Afterwards, I shall proceed to treat of CHAP. 6. those Passions, that derive their Origin more immediately from the Direction of the Mind and its Faculties, as the readiest Means to conceive as much of their Nature, as the Difficulties, attending fuch a perplexed Subject, will admit.

Now Fear is a Passion of Weakness, Of Fear and that arises from a palfical Disposition of Courage. those Fibres of the Brain, where the Soul immediately resides, or at least from too great a Relaxation of those Fibres, that immediately support the Mind in its Action of Thinking; and which confequently infer divers Changes in our Thoughts, all of the abject Kind. If these Relaxations happen to be natural, then is the Person naturally a Coward, and unable to stand his Ground against any powerful Opposition: That this is so, will still more clearly appear, if we attentively consider, from whence we have the Idea of that opposite Habitude we call Courage.

Now Courage is only a steady Presence of Mind, in the Midst of dange-

rous

PART I. rous Enterprizes, which always demands a plentiful Secretion of this Animal Æther for its Support, that so fortifies the Soul, in its just View of the Action, that it does not fear those Consequences that, perhaps, would put Persons, with Nerves less elastick, into a Panick. What still more strongly strengthens this Opinion, is, our confidering how far this natural Habitude may, in some Constitutions, be improv'd by Art; and how very Cowards may acquire a Valour above what their natural Temperature has given them.

> EVERY Body knows, that a Glass of generous Wine will raise the Motions of the Animal Fluids, and inspire the most dastardly Spirits with Courage to face the stoutest Mortal; when, perhaps, were he fober, and clear of this artificial Help, not all the Reason in the World could prevail on him to look the fame Enemy in the Face.

THIS Change appears clearly to depend on the plentiful Secretion of the Animal Spirits driven, from a greater Impulie

pulse, into the Fibres of the Brain, that, CHAP. 6. for a Time, gives a new Spring to the Animal Æther, and fets the Coward upon a Level with the greatest General: Nor is it only possible to make Cowards valiant, but divers Accidents may happen to abate the Valour of the most confummate Heroes: For if, by Purging, Bleeding, and short Feeding, you abate the natural Elasticity of the Fibres, their natural Courage will fink, flatten, and decay to the last Degree of Impotency: And I am credibly inform'd, that the late Duke of Marlborough, in the last Moments of his Life, was so infirm of Mind, through a Decay of the nervous System, as feveral Times to weep like a Child, tho' certainly, in the Field, he was one of the most intrepid Sons of Mars, that ever fac'd an Enemy.

This, I think, is a Demonstration clear enough, how much the Minds of the bravest Men, may not only be debas'd by Age and other Accidents, but how even the most natural Cowards may be raised to the highest Pitch of Valour for a Season.

G 2 THESE

PART I.
Of the fentible
Paffions.

THESE Passions, that derive their Origin more immediately from the Commotion of the Mind, and raise or depress the Motion of the Animal Fluids above or beneath the Standard of Nature, I call the fenfible Passions; because they generally arise from the Sense of Objects striking the Mind with a forcible Impulse. These Objects of the Passions are, whatever may create Anger, Joy, Fear, or Grief; that is, affect the Soul with any of the foregoing Changes, and disconcert her Serenity: Hence it follows, that our Passions are only our natural Sentiments heighten'd or depress'd above or beneath the Balance of Nature, as happens in violent Anger and Joy, Fear and Grief, which are no where, when the Objects are not in View of the Mind, to excite them.

In the Production of every particular Paffion, there feems to be a Collision between the Faculties of the Soul, and the Motion of the Animal Fibres; which irregular Motions arise from the Impulse, that the Idea of the Object makes on the Mind. Thus we frequently observe, that the Sense of Sounds can change the Motion of the Chap. 6. Animal Fluids, as in violent Anger arifing from disobliging Expressions or Actions; but it's impossible, in the Nature of Things, that any Force of Words can immediately operate upon the Blood and animal Fluids to give them immediately this new Determination, did they not first raise a Commotion in the Mind, which moves the Animal Æther to move the Nerves, that moves the Arteries to move the Blood.

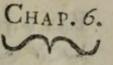
In all great Transports of Joy, and the other exhilerating Passions, the Beating of the Heart and Arteries, and confequently the Motion of the Animal Fluids, are enforc'd and accelerated, in much the same Manner, as in the Angry Passions; only the Difference arises from the pleasing or disobliging Objects with which these different Sensations are struck on the Mind in exciting these different and opposite Passions.

I know the celebrated Des Cartes endean vours to make the sensible Passions depend on mechanical Causes, independant of the G 3 intel-

PART I. intellectual Faculties, and the different Sensations consequent thereupon; but how that Gentleman would be able to account for those Passions, that arise from the Sense of Sounds, independant of any Force from external Objects, I am unable to conceive. The Sense of Sounds can no Ways operate upon the Body, but as they first operate upon the Mind; and, by first exciting a Motion in the Mind, that Motion, in the Mind, produces a Change in the Motions of the Animal Fluids. The Medium by which these Changes are effected, as I have already observed, is a most subtle Animal Æther of different Elasticities, arising from the different Temperatures of the Habit.

> THOSE Looks, Gestures, and different Motions of the Countenance, that betray the Affections, in divers Passions, arise from different Sentiments in our Thoughts, that differently determine the Contraction of those Fibres that compose the Muscles of the Face. Every Passion, that differs from another, has either a different Muscle, or, at least, a different Motion of the same Muscle to express it by; were it not for thefe

these Distinctions of the Countenance, CHAP. 6. in different Passions, it would be impossible to discover, when Persons were angry or pleas'd, merry or fad; fo that these Muscles are form'd, by the beneficent Author of our Being, as an Index to the Mind, to discover the inward Sentiments of undifguis'd Nature: Nor could we possibly know the internal Thoughts of this immaterial Substance, that resides thus surprisingly within us, unless those Characters were engraven on corporeal Organs, that they might appear legible to the rest of Mankind; so that the Action of the Muscles serving the Countenance, give us certain Indications concerning the internal Operations of the Mind, as they are differently display'd in divers Passions of Anger, Joy, Grief, &c. And if any belye the Motions of these Muscles, and screw them up into a fawning or devout, fanctify'd Position, when he is envious, or inwardly guilty of the most enormous Vices, we fail not justly to brand such an one with the Title of an Hypocrite. And hence it appears, that Hypocrify is one of the most detested Crimes, that human Na-



Men.

PART I. ture can be guilty of; for the Hypocrite not only debases his Reason, which teaches him to express Truth, both in his Words and Actions, but he lives a continual Lye, both to his God, himself, and all good

THE Ebbs and Flows of the Passions often arise with that Force, as greatly to disconcert all the Sensations; and then they depend on the Mechanical Powers of the Solids, or those Impulses they receive from the fudden Starts of the Mind upon any violent Surprize. These Affections of excessive Joy or Grief, thus arising from the different Sensations of divers Objects, differently move the Mind and its Faculties; the Mind and its Faculties, a fine Animal Æther of different Elasticities, on which they immediately display their Force; this Animal Æther, the Nerves and their Fluids; the Nerves and their Fluids, the Heart and Arteries; and they again affect the fubordinate Motions, and Under-Springs of the whole Animal Machine.

CHAP. 6.

AND hence it happens, that great ? Fears, Griefs, Sorrows, or Disappointments, retard the Motion of the Blood, the Secretion of the Fluids, and infer Obstructions and schirrose Swellings in divers of the inferior Viscera; because these dejecting Passions rebate the Motion of the Plexus Nervosus, that immediately communicates with the principal Organs; and, by this Confent, it retards the Motion of the Heart, Stomach, Diaphragm, Intestines, Spleen, and Parts ministring to Generation, whereby these several Organs are greatly affected, under all fudden and furprifing Passions. And this is the Cause of those violent Palpitations and Flutterings of the Heart, of those Indigestions and Loss of Appetite, that most generally ensue upon any great and fudden Commotion: And hence we difcover, why Costiveness is an inseparable Symptom under the Spleen, Vapours, and Hypochondriack Melancholy; because the Peristaltick Motion of the Bowels is flower, whereupon the Excrements are retarded in their Descent,

PART I. On the contrary, the joyous Passions, If they be excessive, are attended with Confequences equally as dangerous; for they fail not to enforce all the animal Motions of the foregoing Organs, in a most violent Manner, which often create burning Fevers, Plurisies; and, if the Constitution be naturally very biliofe, a temporary Madness necessarily ensues, from the fudden Expansion and extreme Rarefaction of the Animal Fluids, following upon the Surprize, that excited the Passion.

> FROM daily Experience we discover, that the Mind has this Power of bending, or unbending, of contracting or dilating its Faculties, according as it is affected with Objects more or less agreeable or displeasing; and these Swellings and Subfidings of the Soul, in the forming of any Passion, if they happen to crack those noble Springs of the Brain, on which the finest Sensations depend, fail not to put an entire Stop to all the Motions of the Animal Machine, as not feldom happens in great and fudden Gufts of either Joy or Grief.

very furprifing Instances, concerning the Power of these opposite Passions over human Nature, when indulg'd to Extremes. Mrs. Davise, a Lady of consum- of the Passions of the Passions of Joy and mate Virtue, was so sensibly touch'd with excessive Joy, upon suddenly hearing of the Return of her Son from the Indies, that the Passion was too big for her Soulto struggle with, which, in a Moment, disconcerted all the animal Springs, and put an everlasting Stop to all their Motions.

And as the Passion of Joy is capable of Elevations above all the Bearance of human Nature, so its opposite Passion Grief is sometimes attended with Consequences not less fatal, as will appear from the Case of that unfortunate Lady Mrs. Chiswell, who was so extremely affected with Sorrow, at the Departure of her Son for Turky, that she expir'd that very Moment, she was about to withdraw her Hand from a parting Farewel.

It is remarkable, that both these Ladies were, in a very high Degree, subject

PART I. to the Vapours; and that the Spirits, upon the Rife of the Passion, suddenly rarefying and expanding above their natural Standard in the former, and being too much contracted or depressed beneath their natural Standard in the latter, were the real Causes, why these two unfortunate Ladies fo fuddenly expir'd under the Violence of these opposite Passions.

> I think it is an allowed Maxim amongst the most learned of our Divines, that there is a different Propenfity, Inclination, and Force, impelling us to divers Vices, in different Individuals; that is, that the Degrees of constitutional Temptations are different in different Subjects. Whence, I pray, arifes this different Impulse of the Inclination? Does it immediately depend on the Force of the intellectual Powers, or on the Appulse of the Object made on the different Structure of the Fibres? On the different Structure of the Fibres, certainly, that excites the Impulse on the Mind, and renders the Desires to any Object more or less pressing.

Снар. 6.

To conclude: From the foregoing Arguments it clearly appears, that all those uneasy Sensations, that arise, in any Passion, from the Want of an abfent Good, or at least, from our Sense of that Want, are owing to the different Structure, Mechanism, and Modulation of the Fibres; and as the greatest Impulse will arise in biliose Constitutions, so these ought first, and above all others, to take great Care not to give in too much to any vicious, customary Habits; for they will strongly improve upon the Constitution, and be found difficult to forego, from the inexpressible, uneasy Sensations, that will continually folicit their Return. And I am myfelf perfectly acquainted with several of this Complexion, that will fooner forego the greatest Tranquility in Life, than part with these Habits, when once they are become cuftomary; fo strongly does Appetite prevail over Reason, Health, and the Welfare of the Body.

PART I.

ANCEDICATION OF THE

CHAP. VII.

Of Sensation in general, and the Structure, Mechanism, and Modulation of the Nerves, necessary to produce Sensation in Animal Bodies.

HAT the supream intellectual Faculties receive their Powers of Action, from the Laws of Matter and Motion, while the Soul resides in this Animal Machine, I think appears evidently clear from the Reasonings and Arguments of the foregoing Chapters. I shall now go on to discover, as well as I am able, how all our Senfations are communicated to the Understanding, by the Mediation of bodily Organs; that is, how the Materials of all our Knowledge are transmitted to our Thoughts. by means of the Nerves, and the Mechanism of these curious Instruments neceffary to produce these Sensations.

That the Nerves are the Instruments of us, the Soul, would be but little, or not Sensation.

at all, concern'd for the Sufferings of the Chap. 7. Body, were it not liable to be affected with all those Pleasures or Pains, that tended to its Health or Sickness; but it could not be affected with those Sensations of Pleasure and Pain, were it not for those fine Threads, the Nerves, that every where strike the Mind with the Idea of Sensation, upon the Application of any Object.

Now as we perceive every Fibre of the Body to be affected with the Sense of Feeling, fo cannot we conceive how this feeling Faculty can ever be lodg'd in the Fibre, that is, the nervous Syftem, as a Bundle of fine Cords curioufly interwove, can perceive nothing apart from the Mind; if you divide a Nerve, the Part it is dispos'd to, will immediately lose all Sensation, unless some other Branch furnish it with a Slip; however, it will be depriv'd of all Sensation it deriv'd from the former Nerve. It is plain then, that the Body feels not, but the Soul; and that it has pleas'd the divine Author of our Nature to communicate to certain Fibres, fo and fo modulated, a Power or Capacity of transmitting the Tdeas

PART I. Ideas of all Objects, that enter by any of the Senses to the Understanding. This Capacity of the Fibres, in the Transmission of Objects, we call Sensation, and these Sensations are furnish'd to the Mind, from a certain Modulation of fine, white, pellucid Chords, we call Nerves.

Of the Origin of the Nerves, and their Diftributions.

In Dissections, upon viewing these fine Fibres, that are the Instruments of Sense, Motion, and Strength in Animal Bodies, we perceive that they derive their Origin from the Brain, Cerebellum, and Medulla Spinalis; and are not originated from the Heart, as Aristotle falfly taught his Followers. There are ten Pair, that arife within the Scull, whose Fibres are difplay'd upon the several Organs of the four Senses, viz. Vision, Hearing, Tast. ing, and Smelling. The rest are thirty Pair in Number, which arise from the Medulla Spinalis, that, in their Descent down the Spine, come out from between the Vertebra of the Neck, Back, and Loins. These vertebral Nerves give to every Point of the Body, where they come, a most sensible Idea of Touch, which

which would be inexpressibly affecting, Chap. 7. were not their Sensations somewhat abated by a fine carnous Parenchyma.

Now, these different Modulations of the Nerves, by which different Sensations are produc'd in the Body, depend on certain Motions of their Machinula, that affect each other, in every Contact of the Object; by which Contact the Sensation is propagated to the Seat of the common Senforium; for all Senfation is only the different Impression of Objects apply'd to the Nerves differently disposed to receive their Appulse; as we shall more clearly discover, when we come to discourse on the feveral Organs of the Senfes, and the Modulation necessary to transmit different Objects, or the Objects of different Senses, to the Understanding.

THE Mind, as we have in the foregoing Chapters observ'd, sits as an Arbiter or Judge, capable of being affected
with divers Objects from without; the
Admission of Objects from without, is by
Means of the Nerves serving any of the
Senses, which immediately convey the
H Ideas

PARTI. Ideas to the Understanding, by Means of the common Sensorium.

Of the common Senforium, or that Point of the Brain, where all the fenfible Nerves terminate.

This common Sensorium, I take to be that Point of the Brain, where the Ideas of all Objects terminate, immediately before they affect the Mind; that is, where all Objects make their last Impressions, immediately before the Soul receives them from corporeal Organs: So that the common Senforium, according to my Apprehension of this dark and intricate Subject, feems the Soul's Presence-Chamber, or the Ending of Matter, and the Beginning of Thought; or, that I may express myself in Terms as little ambiguous as possible, that Point of the Brain, where all the Nerves ferving Senfation, receive their Origin; or that Point of the Brain where the several Ideas unite, before they affect the Mind with one uniform Perception: For the Objects we view with both our Eyes, would appear double, did not the Optick Nerves, that convey the visible Species of Objects, unite in a Point, before they approach the Center of the common Sensorium; nor would fewer Inconveniencies attend the Objects

of Hearing, were the auditory Nerves to CHAP. 7. penetrate the Seat of Sensation in two Canals; for then, upon either of 'em being from any Causes relax'd more than the other, there would follow a Diversity of Sounds; and the Impressions entering the Ear, by the relax'd Tympanum, would not be much unlike the Sound of an Echo, with this Difference only, that it would be duller, and fomething flower.

Bur here a Question very fitly arises, and that is, How we can conceive the Brain to be the Seat of Sensation, when its Fibres are acknowledg'd to be void of all Sense? To this I answer, that neither the Brain, Nerves, or any other Fibre of the Body have any Sense of themselves, but only as they receive it from the Mind.

Now the Reason why the Brain is de- The Reason stitute of all Sensation, is, because its why the Brain Fibres are naturally too much relax'd; all Sensation. and they are naturally too much relax'd by the Providence of Nature, that they might not be susceptible of those inexpressibly acute Sensations, to which they had been liable to be affected with, from

PART I. the immediate Presence of the Mind, had they been more contracted or screw'd up to an equal Degree of Tenfity with the Nerves themselves; for then, every the flightest Passion of the Mind, or Affection of the Body, must have endanger'd the Animal Machine with Convulsions; from those extremely acute Sensations, the Impulse would have struck upon the Fibres of the Brain, in every Contact of the Object; but, more especially, from the Impression of those Objects, that raise the most fensible Passions.

> WHILE the Nerves of the Animal Machine continue justly modulated, or braced, according to the regular Standard of Nature, the Mind will perceive itself perfectly at Ease, and free from all Man. ner of Pain and Uneasiness. But some perhaps, may ask, How shall we know when this Animal Machine is exactly braced and modulated, agreeable to the exact Standard of Nature's Laws? and what are the mechanical Powers on which that Modulation depends? To which I answer, That the Mind perceiving itself perfectly at Ease, will be the clearest Indication,

dication, that the several undulating Fi-Chap. 7. bres are acceeding nearest to the Balance of Nature; for it's impossible that any Organ of the Reasoning Instrument can be out of Tune, but that the Mind will perceive it; so that, upon these Grounds, we have a Standard to go by, or a Director to inform us, whenever this System of Matter and Motion is any Way affected; and, not only so, but this thinking Being is capable of pointing out the very Part it perceives primarily affected, which still gives us the greater Assurance, that a Disease subsists in the Body.

INDEED the Author of our Nature has fo surprizingly contriv'd the Harmony of the human Fabrick, that the Mind and Body shall equally suffer under all the various Circumstances of Life; so that if the bodily Organs be faint, weary, or any ways disconcerted in their Springs, the Mind perceives their Affection, and is affected with the Change. Now the Question is, Whether the Force made use of for the Recovery of these Disorders, acts upon the Body or Mind? And from all Observations, it most certain-

PART I. ly appears to act upon the bodily Organs; of for, by raising the Contraction of the Arteries, we, at the same Time, increase the Circulation of the Blood, raise the Beating of the Pulse, the Motion of the Heart, and quickentheSecretion of the Animal Fluids, whereby all the Senses are revived, the Faculties dilated, and the Soul itself chear'd, by those fine, foft, undulating Motions, that the Fibres, thus affifted, strike upon the Passions.

Of the Mechanism of the Nerves neceffary to pro-

Now, in Order to produce Sensation in the Organs of animal Bodies, it is not onduce Sensation. ly necessary, that the several Parts be endued with nervous Fibres, brac'd or strung to a certain Degree of Tensity; but that these Nerves be capable of a peculiar Modulation, on which the Action and Harmony of Contact may depend.

> To this End, Nature has furnished those fine Fibres, ordain'd for the Office of Senfation, with numberless, small, papillary Machinulæ, that, in every Sensation, from the Application of any Object, should vibrate on each other, and by that Means convey the Idea to the Seat of the common Senfo

rium. Now if it so happens, that an Object Chap. 7. is apply'd to any Organ, when its Fibres are too much relax'd, which they are capable of from divers Causes, and consequently their papillary Machinulæ set at too great a Distance from each other, it will necessarily follow, that either there will be no Sensation at all, as often is the Case under Palsical Affections, or at least it will be greatly impair'd, as often happens under those Stupors or Numbnesses, that sometimes affect the several Members under a deprayed Sense of Touch.

On the contrary, if these small Machinulæ of the Nerves happen, from any Causes, to be too much contracted, that is, drawn up nearer to each other, than is consistent with a regular Standard, the Sensation of that Part or Organ will be increased, and the Idea of Pain communicated to the Seat of the common Sensorium; for Pain only arises from too great Tension put upon the Fibres of any Organ; and this Tension causes a Contraction of those papillary Machinulæ, that forms the Fibre, and these Contractions excite the Idea of Pain; but if these

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Con-

PART I. Contractions be greatly increased above the Standard of Nature, they then produce Convulsions, or convulsive Motions, which, in some Cases, wholly destroy the Ideas of both Pain and Sensation, as generally happen in the Epelepsy, and more vio-

lent Convulsions of the Brain; and, indeed, in all Cases wherever the Machinulæ of the Fibres, and more especially of the Nerves, are either too much contracted, or relax'd, there the natural Sensations

will be either too much increased or les-

fen'd.

The Degrees of Contact, or Touch, therefore, must depend upon the nearer or remoter Distance, that the Machinulæ of the Nerves are placed to each other; for the lesser the Spaces are between each Machinula, the easier and quicker is the Mind struck with the Image of the Object; and consequently the lesser will be the Vibration necessary to convey the Idea to the Understanding; for the Impression of Contact, or a Touch of the Object, being made on the papillary Glands, at the Ends of the nervous Machinulæ, the Jar, Twang, or Osillatory Motion, conveying the same

must either be continued through the whole CHAP. 7. Length of the Fibre, till it reaches the Understanding, or else no Idea of an Object can be perceived to enter the Mind; and hence it follows, that if any of these Machinulæ happen to be either too much contracted or relax'd; that is, if the Balance of Equality, or that proper Point of Distance, whereby they excite a Perfect Senfation, happen, from any Caufes, to be disconcerted, then Sensation in general will be but flowly perform'd; and if this be natural to the State of the Body, we call fuch, dull, heavy, stupid Persons, when all the Dulness is in the Incapacity of the Organs, and not any ways imputable to a Defect of the Mind.

Bur, as there may be Sensations where the Ideas are painful or depray'd; so may there be others, where the Mind is affected with pleasurable Ideas; these arise from all Objects that raise easy Motions, that gently vibrate on the Nerves, whereby the Jars or Twangs of the papillary Machinula, against each other, in every Contact of the Object, exceed not Nature's Laws: And this is the Reason,

PART. I. why, fome Times, the Ideas of past Actions are fo lively represented to the Underitanding, that Persons of a fine and delicate Turn of Fancy, are so sensibly affected, that they can smile, laugh, and be agreeably diverted, tho', perhaps, the Scene was transacted several Years before.

From whence arises that Variety in Mens Capacities and Endowments.

WE perceive a vast Variety in Mens natural Capacities and Endowments; from whence, I pray, arises this natural Difference, but from the natural Structure, Mechanism, and Modulation of the Fibres, that compose the several Instruments of Sensation, whereby the Perception of Objects, that come in by any of the Senfes, is more or less clear? And this Perception of Objects, when it is natural, we call the natural Towardliness, Genius, or Disposition, by which the Person so endow'd is more aptly disposed to learn; and these good Dispositions arise from any of the Senses being more open to the Impressions of Objects; that is, from the Instruments of any particular Sense, being finely strung to a just Medium.

AND if we descend to consider the CHAP: 7. Circumstances of the Blood necessary to produce that Ingenium, Promptness of Expression, or Facility of Wit, which some Men are so remarkable for, above others, we shall perceive it to arise from the Arteries and Nerves naturally tense, from Blood and Spirits eafily moveable: And hence it follows, that Persons of a fine, thin Texture, whose Constitutions are little fleshy, are generally more agile, quick, in their Apprehensions, and what we call witty, than any other Habit of Body; for, in this Case, the Juices, and especially the animal Fluids, will be more readily difposed to secrete; and consequently the Ideas of Objects struck on any of the Senses with a stronger Impulse.

To confirm the foregoing Reasonings,

I shall beg Leave to take Notice of the different Degrees of Sensation incident to affect *Infants, and very old People; and *vid.page 46. why both these States of Life are least 47.48. susceptible of the Impressions of Objects. Infants, or very young Children are not capable of retaining the Ideas, that affect any of their Senses, because those finest Fibres

PART I. of the Brain, on which the Sensations depend, are yet unfolded; nor do they open before they have made some considerable Progress in Years, and consequently the Ideas that come to the Mind, through any of the Senses, are soon eraz'd upon the Disappearing of the Object; and this is the Reason why Children are scarce able to recall any Thing to Mind, before they are advanced into the third or fourth Year.

> OLD Men, indeed, retain their Ideas long, because their Memories are very tenacious of what they have got by Experience: And hence we discover the Reason, why very old Men will discourse in a very agreeable Manner, upon former Transactions, even after all the Avenues of the external Senses are contracted, and shrievel'd up by Age, and the Diseases incident to affect them in the latter Periods of Life. This Power depends on the Force of the internal Fibres of the Brain, which excite these Perceptions in our Thoughts, and decay not so readily, as those Fibres that ferve the Instruments of the external Senies, and which retain their mechanical Powers,

often, a long while after all the external CHAP. 7. Avenues to the Mind, are entirely oblite rated and block'd up.

To me, their seems almost as great a Of the Diffe-Difference between Sensation and Percep- Sensation, Pertion, as between Perception and Reflection; Reflection. as will, I believe, appear very clear to any Person, that duly considers the Signification of these different Words, and the distinct Ideas they are made to stand for: For Reflection is only a Power in the Mind, by which it revives any former Perceptions. Perception is a Power, by which the Mind perceives any Senfation lodg'd in any particular Organ of the Body; so that Sensation precedes Perception, almost in the same Manner, that Perception does Reflection, only the former is more instantaneous: And if it be faid, that there can be no Perception, where there is no Sensation; I answer, neither can their be any Reflection, where there is no Perception. These three Powers of the Mind are entirely depending on each other, and all on the due Modulation of the Fibre; fo that where there is no Sensation, there will be no Perception,

rence between ception, and

PART I. and of Consequence no Reflection; but although there can be no Perception where there is no Sensation, yet if the Mind perceives itself differently affected in different Organs, by the same Impulse, that will be sufficient to support the Distinction. This Confounding of these different Ideas arises from our not sufficiently attending to the Objects, that enter by any of the Senses, which certainly make a different Impression in the Parts affected, from what it is in the Mind, perceiving that Affection.

> SENSATION, therefore, I take to arise from the Application of any Object to the Surface of the Body, that is capable of affecting it with its Impulse.

> PERCEPTION I call a Power in the Mind to apprehend the Sensation lodg'd by the Contact of Bodies in any of the fensible Organs, whether it be in the Hearing, Seeing, Tafting, Feeling, or Smelling Sense; Sensation, therefore, is in the Part affected, Perception in the Mind perceiving the Affection.

But a Question here necessarily arises, CHAP. 7. and upon which the Learned have very much divided; and that is, Whether these Sensations, that are excited in the Organs, from a Contact of the Object, owe their Origin to a Vibration of the Nerves, or are the Effects of fine animal Spirits, which, by their undulating Motions, impress the Idea upon the Mind?

In order to resolve this Question, in Whether Senthe clearest Manner, it will be necessary, on fine animal in the first Place, that we consider the Spirits, or Impulse, or a Vi-Uses and Ends, for which Nature has bration of the destin'd certain Organs, Vessels, and their nervose Fibres. Liquors. Now it's evident, that what the Stomach is to the Chyle, That, the Arteries are to the Blood, That, the fine Glands and Nerves of the Brain are to the animal Fluids; and as the first dissolves the Meats, and changes them into a fine Chyle, fo the Arteries change the new receiv'd Chyle into Blood, so the fine Glands of the Brain and Nerves, by their ofcillatory Motions, change the Blood into a fine animal Fluid, fitting to nourish their Substance, whose Excrement or Superfluity

PARTI. is discharg'd, by the cutaneous Emunctories, in the Form of Perspiration.

So that, from this Mechanical Way of Reasoning, it clearly appears, that the several Digestions, or Motions, which the several Organs, impress on the ingested Meats, from their first coming into the Stomach, to their going off by Persipiration, are only intended to divide their Particles fine enough to nourish the several Parts, through which they are severeted; and if so, then it follows, that the animal Fluids are destin'd to nourish the Nerves, and keep up that proper Elasticity, necessary to produce Sensation in animal Bodies.

IF, indeed, we grant it more reafonable, that Sensation should depend on fine animal Fluids, which, by their undulating Motions, might impress the Ideas of Objects upon the Understanding, or its Faculties, yet still it would follow, that the Nerves would be the chief Instruments of Conveyance of those animal Spirits; and that their Motions, Impulses, and consequently Sensations, must depend upon their proper Stricture.

IT is incumbent, therefore, on these CHAP. 7. Gentlemen, that endeavour to support Sensation, upon the Motion of fine Animal Spirits, that they first inform us, from whence thefeFluids receive their Impulse, that give them those quick Turns and Returns, to and from all Parts of the Body: If they fay, from the Nerves; then a proper Enquiry will arise, viz. whether it will not be more reasonable, from the Nature of the Animal Motions to determine the Sensation rather to arise from the principal Cause, than the Effect, rather from a Vibration of the Nerves immediately communicated, from the Impulse of the Object, to the Seat of the common Sensorium, than from fine Animal Spirits, whose Motions are purely the Effects of these Vibrations.

AGAIN, if we should admit the Cause of Sensation to arise from fine Animal Spirits, undulating through the Nerves; yet, upon Abatement of any Sensation, whether it be in the Instruments of Vision, Hearing, or the Faculty of Feeling, it will be proper to recover the natural Elasti-

PART I. Elasticity of the Nerves, in order to revive the Sensation.

> I COULD illustrate this Point much more clearly, were I to go on and explain the Nature of involuntary Motion, the Manner how any Muscle or Organ is involuntarily contracted under convulfive Diseases, and the Causes of that involuntary Contraction: But as these are Subjects foreign to my prefent Purpose, my Design being only to treat of the Sensations and Motions of Animal Bodies, so far as they relate to the Nature and Cause of the Spleen, Vapours, and Hypochondriack Melancholy; so I shall wave their farther Prosecution, and proceed to confider the Nature of Sensation in particular, the Structure, Mechanism, and Modulation of the Fibres, necessary to strike these particular Sensations, upon the Organs of Animal Bodies, and give the Mind a Perception of the Object.

AGENCHIEN INCHES

CHAP. VIII.

Of the particular Sensations: And first of Vision, Light, and Colours.

I T has pleased the divine Goodness to render the Soul receptive of Impressions, through certain Instruments, which, when rightly disposed, are capable of transmitting all Objects, from without, to the Understanding.

THESE Organs, or Instruments, in a more appropriated Use of the Words, we call the Senses, which are five, viz. the Hearing, Seeing, Tasting, Smelling, and Feeling. Other Organs, than these, the Soul has not; nor any other Inlets to convey Ideas to the Mind, which is the Reason, why our Knowledge of Nature and of Things is so scanty; and why we are so unable to penetrate any great Way into their abstruce Qualities, and discover the real Causes of their Connexion and Existence.

PART I.

Now, as Vision is the most considerable of all the Senses, so I shall consider the Structure and Mechanism of this curious Organ, and the Modulation necesfary to transmit Light and Colours, and all other visible Objects, that enter by the Eye, to the Understanding.

> THAT Ornament of the English Nation, Sir Isaac Newton, has so fully demonstrated the Phænomena of Colours, as they arise from the different Textures, Positions, and Surfaces of Bodies, whereby they are impower'd differently to refract the Rays of Light, and give a different Colour to divers Objects, that, I think, it will be needless to attempt a farther Explanation upon these Subjects. I shall, therefore, go on to discover, upon the same Principles, the Structure of the Eye, the Mechanism and Modulation of the feveral Coats and Humours that compose this curious Organ, and the Requisites necessary to convey these several Phænomena of Light and Colours to the Understanding, in a Way different from what has hitherto been attempted. For tho' distinct Vision depends upon a Mathematical

thematical Exactness, in the Distance and CHAP. 8. Arangement of the Coats and Humours of the Eye, whereby the Image of the Object may be reflected upon the Retina; yet, unless the Structure of the Fibres, the Motion and Secretion of the Humours, be justly adapted to convey the Appulse, it's impossible there can be any distinct Vision, or Admission of Objects to the Understanding: So that all the visible Beauties in Nature, or that Visibility they receive from our optical Organs, will appear as one univerfal Blank to the Mind, notwithstanding the Ball of the Eye may be finish'd in geometrical Proprotions.

This will afford the best Light into the Nature of Vision; the Manner how the Organ of the Eye is naturally affected with Light and Colours; and how it comes under the Spleen, Vapours, and Hypochondriack Melancholy, to be so highly perverted and impair'd.

THERE are four Circumstances absolutely necessary to produce the Sensation of Vision in Animal Bodies, viz. Light,

I 3 Objects,

PART I. Objects, a Medium, and Organs rightly disposed, in the Patient, to receive their Impression.

The Rife, and Progress of Heat, Light, and Colours.

ALL Motion, arifing from the Attrition or Collision of Bodies, produces Heat; and Heat is Fire invisible, which demands nothing more to make it be visibly perceiv'd by the Eye, but that the Rapidity of its Motion be fufficiently increas'd to enflame the Matter; and all vifible Light is only the Corpufcles of Fire fet at too great a Distance to burn: Not that it is absolutely necessary, that there should always be Light, where there is Heat or Fire; because, in some dense Bodies, the Corpufcles of Light are fo imprison'd in the Particles of Matter, that they do not become luminous or visible, unless the Parts be exceedingly agitated.

THE Difference, therefore, between Light and Fire, is this; That the latter is only the Corpufcles of the former more minutely divided by the Velocity of their Motion, which renders them infinitely more powerfully penetrating; fo that we have no Matter in the Universe, so com-

pactedly

pactedly close, into whose Pores this ac-CHAP. 8. tive Body will not infinuate itself.

That Light is only Fire, whose Corpuscles are set at too great a Distance to become inflamably hot, will appear evidently clear from this Experiment; That if you, by the Assistance of good Glasses, unite or contract, into a Focus or Point, an infinite Number of these Rays of Light, they will become so exceeding hot, as to fire or enslame every Thing within the Sphere of their Activity.

And, as Light is Fire, whose Particles are naturally too languid in their Motion to burn; so Heat destitute of Light, is only Fire invisible, which demands a greater Rapidity in the Motion of its Corpuscles to produce it into Flame: So that Motion produces Heat, and from Heat encreas'd arises Light, and Light condens'd produces an actual Fire, as appears from the foregoing Experiment made with Burning Glasses.

LIGHT, therefore, is only the Rays or Of Light.

Streams of a most subtile Æther, put into a rapid

Part. I. rapid Motion, which occasions a luminous Brightness in its Corpuscles. The greater or lesser Rapidity of their Motion depends on the greater or lesser Degrees of the Sun's Power, by which the greater or lesser Degrees of that luminous Brightness is perceived.

Of the Sun-Beams, and their different, Original Colours. If the Rays immediately proceed from the Sun's Influence, it is call'd a Sun-Beam: These Beams are of divers Colours, according to their different Magnitudes, which give different Appearances to different Objects, accordingly as their Surfaces are differently disposed to refract the Rays of different Colours; which is the Reason, why one Object appears blew, another red, and a third Green, &c. and why some particular Objects appear of divers Colours, which arises from the Rays being compounded.

Of Compound!
Rays, and the
different Colours they
produce.

COMPOUND Colours, such as Purple, arise from the Texture, in the Surface of the Object, being able more powerfully to reslect the red and blew Rays into the Medium, whereby the Mind is affected with

with that Colour; while most of the CHAP. 8. other colour'd Rays are split into a thoufand Divisions by their Refractions, and loft to our Senses.

As Colours, therefore, cannot be per- Of the diffeceived without Light; and as they are colours. only the different colour'd Rays, arifing from the Surfaces of those Objects, capable of reflecting certain determin'd Rays, and not others; or, at least, not in that Quantity capable of overpowering the former; it necessarily follows, that the feveral Shades of Red, Yellow, Green, and Blew, from the palest to the deepest, from the lightest to the darkest, must necessarily depend upon the Rays of the fovereign Colour overpowering all the Rays of the other colour'd Rays, in a Proportion answerable to the Paleness or Deepness of the Shade: So, for Example, in reflecting a pale Blew, it is necessary that all the different colour'd Rays should be reflected from the Surface; but the compound Rays of Red, Yellow, Green, &c. in a less Proportion than the Blew, which is to be the Base of the Colour: For it is Sir Isaac Newton's Observation, that

PART I. that a Reflection of all the Rays produces a light Colour, or what we call Whiteness in the Object, as, from several Experiments, that learned Gentleman has clearly demonstrated, in his admirable Treatise on Opticks. And in compounding the different Shades of the same Colour, it is always necessary to mix a Proportion of White, in order to strike the Shade of a lighter or deeper Dye; and they that make Powder-Blew, know very well, that a Mixture of Starch and Indico. will strike what Degrees of a Blew in the Colour you please, accordingly as you differently proportion the Mixture of those Ingredients.

> But in vain does Light and Colours offer themselves to the Understanding: In vain does the Understanding itself endeayour to comprehend the Nature of Vifion, and judge of the Variety of Objects thus set before it; if there be any Defect in the Organs of the Eye: These Defects will be fufficient to deface the Beauties of the Creation, and give an universal Blank to the whole Book of Nature.

In order, therefore, to furnish this cu- Chap. 8. rious Organ with proper Instruments of Conveyance, Nature has gifted to the ture of the Eye, Veins, Nerves, Arteries, and Lymphæducts, from which is expanded the several Tunicks, and the Humours contain'd therein. These fine arterial and nervous Fibres, terminate in Glands, that serve for the Secretion of these Humours, brought thither both for the Nourishment of the several Coats, and to affish the Eye in Vision.

EVERY Fibre, therefore, that goes to the Composition of these curious Membranes, obtains a certain Oscillatory Motion, whereby the several Humours and their Secretions are preserved in their natural State and Order.

Now the Transparency of the vitrean, christaline, and other Humours of the Eye, by which the Ideas of Objects are, more clearly, let in upon the Soul, arises from the most natural Springyness of the optick Fibres; and which are only Expansions of the fine Threads of the optick Nerve and artereal Fibres, that,

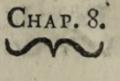
PART I.

by their Oscillatory Motions divide the feveral Humours to the highest Degree of Fluidity they are capable of; for all transparent Bodies, or Bodies capable of reflecting Light, the more they are divided, the more copiously they reflect those Rays; as clearly appears from the fimple Experiments of pounding a Piece of brown Candy in a Mortar, or from the different Degrees of Heat employ'd in distilling the same Liquor, which gives it different Degrees of Transparency.

The Reason, why Cats, Owls, and Bats, fee Objects in a Medium, unthe human Eye.

And hence we discover the Reason, why Cats, Owls, and Bats, enjoy the Object of Vision, or Light, in a higher Dediscoverable by gree, than any rational Being. I have had an Opportunity of diffecting a Cat's Eye, and perceive, that all the Humours are more divided, more clear and transparent, than in those of the human Eye, which enables them to see Objects in the Dark, or in so great an Absence of Light, as would feem dark to us: For any Body, that will view a Cat's Eye, in the darkest Night will perceive it luminous to a very furprizing Degree, and, upon any great Dilatability of the Pupilla, almost frightful. THIS

THIS luminous Brightness, in a dark CHAP. 8. Night, is greatly increased, if the Cat be a good Mouser, and you hold a Mouse or Bird within the Scent of her Mousers; for then she will greatly dilate the Pupilla, whereby this luminous Glare will be more conspicuous; for, upon her perceiving Objects of this Kind, the Fibres contract with greater Vigour, the Spirits move with a greater Velocity, and confequently are more plentifully fecreted in the several Tunicles of the Eye; whereupon they appear more bright, luminous, and transparent.



Now, we are to confider, that the TheCorpufcles Corpuscles of Light, have a positive of Light havea Existence, and do not loose their Being, tence, and are not annihilated upon the Departure of the Sun, from in the darkest our Hemisphere, even in the darkest Night. Night. Their Appearance, indeed, from the Rapidity of their Course and Motion being abated, is greatly lessen'd; whereby their Corpufcles are brought so near each other from their attracting Principle, as not to be able to reflect fo strongly upon the Medium, as to be perceived by the human Eye, tho' they may, and doubtless

PART I. doubtless are, by Creatures, whose Pupilla is capable of a greater Dilatability; for it is the same Thing, in relation to Vision, whether the Rapidity of the Motion be increased in the Corpuscles, that compose the Rays of Light, or in the Humours of our Eyes; in either Case, there will be an Increase of Light let in upon the Mind.

Of Will-with-Wifp, Jack-a-Lanthron, and other lambent Fires.

To prove this more clearly, we need only reflect upon the Degrees of Light, that often arise from sulphurous Corpuscles emitted from the Bowels of the Earth, whose Rapidity of Motion is such, as often to produce a real Light or Flame, when the Rays receive not the least Affistance from the Sun's Influence. And what are these lambent Fires, vulgarly called Wills-with-the-Wife, that gently glide before Travellers benighted, and are faid to lead People out of the Way, but these sulphurous Corpuscles, emitted from the Bowels of the Earth, and produced into Flame by the Rapidity of their Motion? that is, these Motions have a Power to make the Rays of Æther be enlighten'd, and, consequently.

perceiveable in the darkest Night, that Chap. 8. could not be perceiv'd without the Sun's Influence, were it not for these Motions; and, if the Celerity and Motion of these Corpuscles were but a little more increased, I question whether they would not appear with a Glare equal, if not superiour, to That of the Sun; and, doubtless, might overpower our Opticks, as much with the Blaze, as our natural Sunshine obscures the Eyes of an Owl, or other Bird of Night, under its fullest Meridian Splendor.

This, methinks, is a Demonstration as clear as can be given, That the Rays of Light do not loose their Existence upon the Sun's Absence from our Hemisphere; but only that their Appearance becomes invisible to the human Opticks, through a natural too great Contractility in the Pupilla to admit the search a considerable Increase in their Motions, which so far divides them, that they then become visible.

From the foregoing Reasonings and Arguments on this Subject, I think it pret-

PART I. ty plainly appears, that the Matter, that constitutes the different or opposite Qualities of Light and Darkness, is the same; and that either the one or the other of these Qualities prevail more or less in our Hemisphere, according to the greater or lesser Agitation of its Corpuscles.

Light and Darkness the fame.

of Light, I mean the Corpuscles of Light, fo ex as almost to escape the the fame is to of the Points of Matter, occur in this Discourse.

The Matter of For Light is nothing but the Streams of Æther put into an extreme Agitation, by the Power of the Sun's Influence, necessary to give them an Entrance thro' the Pupilla; and it appears from divers *By the Points Experiments, that the * Points of Light, forming every Ray, move circularly upon its Axis; and the Affection we call Light, ceeding small, arises from the different Degrees of Motion in these Points. In absolute Darkness the Imagination; Corpufcles move extremely flow; but whebe understood ther there be any such Thing as absolute Darkness, wherein not any Animal perwherever they ceives the least Degree of Light, is a Question above the utmost Stretch of my Philosophy to determine.

> Now, thus, the Organ of the Eye acts, or is acted upon, in Vision, especially when the Fibres of its feveral Coats

are not obstructed, or impair'd, by any CHAP. 8. Accidents, that may intercept the Transmission of Objects to the Understanding. The Rays of Light, of Colours, and of Objects, that come within the Sphere of Vision, passing through the Pupilla, are, by the Affistance of the chrystalline Humour, painted on the Retina. This Retina is compos'd of the smallest Filaments of the Optick Nerve, which are finely display'd on the back Side of the glasfy Humour. The Images or Ideas of all Objects, that enter the Eye, act upon this Organ by their Impulse; this Impulse excites a Motion in the Optick Nerve, that illumines all the Points * of the Brain concern'd in Vi- * Points of fion, which are all the Points of the Brain the Brain, ligthat go to the forming the Optick Nerve. left Corpuf-This enlightening of the feveral Points that compose of the Brain, and more especially of that Point where the Soul resides, arises from the Vitrean, Chrystalline, and other Humours, reflecting all the Points of the Object, upon a certain Point of the Retina; and hence it follows, that the Object receiv'd by the Understanding, will

cles of Matter, its Fibres.

K

PART I. be the Image reflected on the Retina, which will be more or less clearly perceiv'd, in Proportion to the Degrees of Impulse, in Proportion as the several Humours are more or less clearly secreted, and in Proportion as the Optick Fibres are more or less finely display'd upon the Retina.

FROM the foregoing Arguments and Reasonings upon this Subject, it plainly appears, that the Clearness of our Conceptions, in Relation to Vision, very much depends on the due Stricture and Modulation of the Optick Nerve and Artery; and this is the Reason why this Faculty, in some curious Surveyers of Art, is naturally so strong, and surprizingly exact, so that they, from a transient View of any curious Piece of Painting, shall discover Beauties or Blemishes, that would pass undiscover'd by others less attentive to the Exactness of Symmetry and Proportion.

This exact Judgment of Beauty, or of the Symmetry and Proportion of Parts, entirely depends on the Soul's seeing Chap. 8. through a more transparent Medium, which arises from the greater Brightness and Resplendency of the several Humours, whereby the Images in View are reslected back upon the Soul, or at least its supream Faculties, with all their natural Perfections or Desormities.

AND here I cannot but take notice of those Diamond Eyes, those starry Brilliants, that blaze, and fire, and enflame the Soul with those killing Motions, that, like a Basilisk, wound at a Distance, and kill unseen. These Ardentes Faces, as Philostratus Lemnius wittily expresses those sparkling Eyes of the first Water, which, from the Quickness, Vivacity, and Briskness of their Motions, render fome Ladies fo wonderfully captivating, that its highly dangerous for mortal Man to come within the Sphere of their Commotion. And hence arise those glowing Heats, those inflammatory Passions, whereby we are ardently impell'd to pursue Objects often fatal to our Peace. Now these ardent Impulses, or Inclinations, are always in Proportion to the Violence of K 2 the

Part I. the Passion, and this Violence of the Passion from to the Briskness of the Motion, struck on the Seat of the common Sensorium, which is always in Proportion to the natural Beauties of Objects, or those natural, surprizing Beauties, they are made to display on Optical Organs, rightly disposed to receive their Impression.

Thus far as to the Clearness and Distinctness of Vision, which lessens, in Proportion, as this due Stricture and Modulation of the Optick Nerve and Artery either abates, or is over-intended; for if it so happen, that these fine Fibres are, from any Causes, impair'd in their Springs, then the Impulses they make on the included Humours, will be more languid, the Motion of the foresaid Humours flower, and confequently less divided; upon which their Corpufcles will be viscid, will less powerfully refract the Rays of Light, and the optick Nerve confequently impart a duller Perception of the Object to the Understanding. And hence arises the Cause of those Films, Motes, and little Specks of Darkness, that sometimes affect the Humours of the Eye, and either

ther intercept, or, at least, very much im- CHAP. 9. pair the Action of Vision, under the Spleen, Vapours, and Hypochondriack Melancholy.

On the contrary, if the same Instruments are over-intended, that is, if their Fibres are too ftrongly contracted, then the Motions of these Humours will be accelerated, their Corpuscies too much divided, from whence arise Opthalmia's, and other Inflammations, that visibly affect the Tunica Conjunctiva, or White of the Eye; and which proceed only from its Blood-Vessels over-extended, from a Glut of Juices charg'd upon the exterior Coat of this curious Organ.



CHAP. IX.

Of Hearing, Sounds, and Harmony.

COUND is a Word that stands for every Perception, that is immediately convey'd to the Understanding, by the Organ of the Ear. And therefore I think K 3

it

PARTI. it will not be improper, if I first speak a Word or two concerning the Structure, Mechanism, and Modulation of this curious Organ, necessary to produce these Perceptions in the Soul, before I proceed to consider the Doctrine of Sounds, and the Laws to which they are subject, in their Propagation.

That there is a Sense in Sounds, and a Reason in Musick, which gives to the Soul those exquisite Pleafures in Harmony.

For the Mind is delighted no otherwife with Sounds, than as the Soul perceives the Beauties of Harmony through the Assistance of those Organs, appropriated by Nature for their Conveyance; and there is a peculiar Sense in Sounds, that delights the Soul; nor can we perceive, that harsh, inharmonial Sounds have any Influence to move the Soul, or create those pleasing Raptures that arise from the former. Hence it follows, that there is a Reason in the Harmony of Mufick, as far as inarticulate Sounds are capable of being understood, from their feveral Cadences, tallying with each other; and it is this Reason or Sense of the Tune, that gives to the Soul those exquisite Ravishments, that so strongly move the Passions of Persons, highly delighted

delighted with the Harmony of Musick. CHAP. 9. To facilitate, therefore, this Hearing of Sounds, or noble Harmony of Musick, Nature has given to Mankind an Instrument of Conveyance, which we call the Ear; and though it is form'd of divers Muscles, Bones, and Membranes, that compose its Structure and Mechanism, yet I shall only take Notice of the two principal Instruments that fit this curious Organ for the Sensation of Sounds, which are the Drum and Auditory Nerve, finely display'd on all Points of the internal Ear.

Now had the several Fibres of this Nerve been display'd on every * Point * Point, when of the Drum, in the same Manner that applied to the the Optick Nerve is on the Retina, then dies, fignifies a Sounds had made a different Impression on this Organ, from what we perceive; as is almost imand Whispers could not have been heard, imagine. because of the Distance of the auditory Nerve from the external Ear.

Surface of Bo-Space fo exceeding small,

AGAIN, had the Drum been, immoveably, fix'd on the Os Temporale, then all Sounds that by their Violence shake Hou-

K 4

fes,

PART I. ses, as the Peals of Thunder, and the Roaring of Cannon, must necessarily have broke the Tympanum, and for ever have destroy'd the Faculty of Hearing; but it has feveral Muscles and Bones, that affift its Action, either in contracting or relaxing its Fibres. In all Whifpers thefe Fibres are contracted, whereby the Sound is render'd more fenfibly acute: In great Sounds, that may endanger the breaking of the Tympanum, these Fibres are relax'd, by which the Degrees and Force of the Sound is very much abated.

Definition of Sound.

Sound, therefore, fimply consider'd in itself, is nothing more than a tremulous Motion, or impulfive Wave, arifing from the founding Body, propagated through a Medium, and communicated by the Ear, to the Seat of the common Sensos rium.

THE Air is that Medium, on which the Waves of Sound move, and which is alter'd in Proportion to its greater Rarity or Density, as will clearly appear to any one, that will suspend a little Bell in the glass Receiver of the Air Pump, which

will emit different Degrees of Sound, ac- CHAP. 9. cording as the Air is more or less ex- hausted out of the Receiver.

THE Perception of the Report of Sounds, depends on the right Modulation of the auditory Nerve, and its being fitly display'd on the several Points of the Meatus Auditorius and Drum of the Ear.

This right Modulation of the auditory Nerve arises from the Machinulæ of those Fibres, that compose this Nerve, being brac'd to the exactest Degree of Tensity, whereby they are neither too much contracted, nor relax'd, and consequently clear of all Obstructions that any Way may intercept those finest Airs of Sound, from being convey'd to the intellectual Faculties.

Now, that the Increase or Decrease of Sounds depends as much upon the due Modulation of this curious Organ, as the different Densities of the Medium, in which they are propagated, is evident; for upon the Tympanum being either

PART I. too much contracted or relax'd, through overmuch Heat or Moisture, the Sound will be either too acute or flat, and confequently, in both Cases, deviating from its natural Standard. The former Cafe often happens upon Inflammations of the Ear, or after great Fevers, that fo crifps or drys the Nerves, that the Hearing is acute even to a Fault. Nay, upon screwing up the auditory Nerve to a very high Elevation, you may augment the lowest Sounds, that they shall be heard equal to a Peal of Thunder, or the Roaring of a thousand Cannon, all discharged in the same Moment. the Contrary, from a too great Relaxation of the nervous Fibres, these Sounds shall be so obtuse, as scarce to be perceived: And hence arise those different Jarring Sounds, those finging Noises in the Ear, that most People complain of, that for any considerable Time have labour'd under the Spleen, Vapours, or Hypochondriack Melancholly.

Of the Sense and Reafon of Sounds which is different from the Force of Sounds.

I know that feveral Persons have taken a great deal of Pains to discover the Harmony, Consent, and Agreement, that there feems feems to be between the Objects of Vi-Chap. 9. fion, and those of Sounds; but here I shall pursue the Argument upon more noble Motives; and beg Leave to observe, that there is a Sense in musical Sounds, or a Reason which depends on the Exactness of the Composition; for all Tunes please the intellectual Faculties, only as they are grounded on the Proportion of Sounds, more or less mathematically exact; and, for this Reason, the Force of Sounds is to be distinguish'd from the Harmony; which is Reason in Persection.

So that Tune is a rational System of Definition of Sounds form'd to please the Ear, and they please the Ear no otherwise, but as they please the Soul, and they please the Soul, only as they are harmonical, that is, reasonable; for the Rationality of Sounds depends on their different Modifications, whereby they are enabled to please; for in a Proposition of Words, as well as Sounds, if they are not plac'd in a regular Order, the Mind will presently perceive the Falshood of the one, and Inharmonicalness

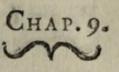
PART I. nicalness of the other, which is the Falsehood of Tune.

And hence it appears, that there is the same inseparable Connexion between a true Proposition in Words, and a true Proposition in Sounds: Both have their peculiar Connexions, Proofs, and Demonstrations, whereby their Truth or Falsehood is discovered; such a Consent and Agreement there is between the Sense of Words and the Sense of Sounds, which is their Tune; so that to ask, why we are pleased with Musick; is, in Effect, to ask, why we are pleased with Knowledge.

Sounds cannot move the Paffions, but as they move the intellectual Faculties.

INDEED, it is faid, that Harmony, or the Melody of Sound only acts by raising or depressing the Passions. But I desire to know, how it is possible to raise or depress the Passions, but by affecting the intellectual Faculties, that is, the Faculties of the Mind; for the Passions, as I have already observed, are only irregular Motions, that arise from a Conslict between the Animal Fibres and the Animal Powers of the Soul, from Objects struck on the Seat of the common Sensorium;

rium; fo that its impossible to conceive, CHAP. 9. how these finest Strokes of Musick could ever move the Mind, to move the Passions, if there were not Beauties in the Harmony of Sounds, analogous to the highest intellectual Reason; by which the intellectual Faculties are so surprizingly affected.



THESE excessive Elevations, and inexpressibly pleasing Raptures, that so sensibly affect the Spirits of those that are remarkable for a fine Tafte in Musick, all depend upon the Fibres, and are owing to a fine Displaying of the auditory Nerve upon the Tympanum, and other Parts of the Ear; for if the Drum be either too dry or moist, that is, if these little Machinulæ that compose the Fibres of this curious Membrane, be either too much contracted or relax'd, then Part of the finest tremulous Oscillations will be lost in the Medium; and though the Mind may perceive the natural Sound, yet, for want of these finest Strokes, much of the Reafon or Harmony will be abated.

PARTI. This Enquiry, perhaps, may let us into the Mystery, why some are naturally more expert Judges of Harmony than others, and discover the Reason, why some are all in Raptures at a well play'd Confort, while others shall sit by without the least Emotion. This Difference, I am fure, does not altogether depend on the Knowledge of Theory; tho', doubt. less, that Knowledge, like all other rational Knowledge, may greatly affift in increasing the Perception; for the Queftion is, whether there is not a natural Difference in the Ears of different Perfons, as to their Perceptions of Harmony in a well play'd Confort? that is, whether fome of them will not be much more elevated with the Force of Sounds, though they are equally ignorant of the Theory of Musick.

> I MUST confess, indeed, that this peculiar Perception, by which the Mind is naturally enabl'd to judge of the exquifite Fineness of musical Airs, without being instructed in the Theory, is only given to a few: And, if we confult different Climates, we shall perceive that this Faculty

Faculty is most improv'd in the Southern CHAP. 9. Parts of the World; where, through the Kindness of the Clime, the People are naturally Musicians; and this is the Reason why Italy and Naples are fo much caress'd by all those that are remarkable for a fine Taste in Musick.

No Body can deny but that Musick is capable of raising or falling the Passions in a very furprizing Manner. The Wri- Alexander the ters of Antiquity story of Alexander the Conqueror of the World, Great, that even he, that conquer'd the conquer'd by World was himself vanquish'd by Ty-Musick. moleon, and could not withftand the Force of his Viol: So that this Musician, in a Manner had him in his Power, and could make him rage or calm, sedate or furious, just as he was pleased differently to modulate the Strings of his Fiddle. And if the Emperor of the World could thus be fiddl'd out of his Senses by the Almighty Power and Energy of Sound, I think, it would not be improper fometimes, to try its Force upon those Diseases, that are supposed to have a very great Dependance on the Mind; (as the Hypochondriack Melancholy,) and discover,

PART I. whether it is not possible, by its Impulfes, to work a Change in those finest Nerves and Animal Fluids, that are too fubtle to come under the Influence of the choicest Medicines.



CHAP. X.

Of the Taste, Touch, and Faculty of Feeling:

ISION and Sound require fome Distance to make their Objects be distinctly perceived; but Contact or the Faculty of Touch demands the immediate Application of an Object, to some particular Organ of the Body. If this Application is made to the Tongue, it is called Tafting; if to the Nose, Smelling; if to any Part of the Surface of the Body, we call it Feeling; and is that Faculty by which we discover the different Degrees of Hardness or Softness in Bodies.

THE finest Organ of Touch is the CHAP. 10. Tongue, which is distinct from the ordi- of Tasting. nary Sense of Feeling, as clearly appears from the different Structure, Figure, and Mechanism of its papillary Glands, whereby it is enabled to convey that Variety of Relishes to the Mind in Tasting; for this Organ, from its different Sensations, may well be called a double Sense, fince it both difcovers the different Impressions that Bodies, by their different Figure and Motion, are impower'd to make on this Organ; (that is, their different Sweetness, Bitterness, Saltness, &c.) and also their different Degrees of Softness and Hardness, which is common to it with the Touch.

THE different Sensations of Pleasure From whence and Pain, in Relation to Contact or Touch, Sensations of feem, to me, to arise from the different Pleasure and Degrees of Force or Motion, with which the Contact is apply'd; for it has pleafed the divine Goodness to render the several Fibres susceptible of Pleasures or Pains, according to the different Degrees

PART I. of Motion apply'd to the Surface of the Body; or according to the different Stimulus, with which these several Mo-

tions affect the Parts.

And here I cannot but observe, that the several Degrees of Sensibility, with which we are affected by this Faculty of Touch, are owing in a great Measure to the Distance of the Sensation from the Brain, abating for the different Thickness of the Skin in different Parts, and the different Quantities of Fat, or a Parenchyma heap'd up in divers Organs, to abate those too exquisite Sensations they receive from the Nerves.

Were not our Organs thus modified, we should not be able to bear the different Changes of the Weather; the Alterations of our Diet would affect us with Pains insufferable to our Natures: This appears from any Part being excoriated, and exposed to the bare Contact of the Air; how sensible is that Part of its Impressions?

CHAP. 10.

Our divine Benefactor, therefore, has a fo furprizingly temper'd the Constitutions of our Bodies, with an infensible viscid Parenchyma, that they are thereby render'd capable of better enduring the Impressions of Accidents that surround them; so that, as the Mechanism of our Organs are fram'd, it requires some Force, from external Objects, to put us to Pain, which, had they been destitute of this Fence, every the lightest Touch, must have affected them in a most sensible Manner.

And, as Things are now conducted in the Animal OEconomy, we shall, upon due Reslection, discover, that different Parts are susceptible of different Degrees of Pains and Pleasures, as appears from those active Sensations that arise upon slightly touching the Roof of your Mouth with a Feather or your Finger, which draws all the adjacent Parts into Spasms, that, if the Titulations are pursu'd, often end in downright Vomiting.

PART I.

EVERY Body almost is sensible of the exquisite Sensations that arise upon tickling the Soals of the Feet with any foft Body. In some delicate Constitutions, a Vibration is so sensibly struck on the Brain, as to bring the whole nervous System into convulsive Motions. This was the Case of an unfortunate young Lady, whose Companions, in their Play, tickled the Soals of her Feet fo long, that she fell into Convulsions, which kill'd her upon the Spot.

The Organs ordain'd for the our Species, the most fenfible Parts in the Body, and why.

Bur among all the pleasing Scenes of Propagation of Nature, there is nothing superiour, nothing equal, nothing alike, or that comes near those wonderfully surprizing Sensations, that arise from a Touch of those Parts, ordain'd by Nature for the Propagation of our Species. It demands the utmost Force of Fancy, the highest Flights of Imagination, and the most towering Genius, to comprehend the Reason of these inexpressible pleasing Sensations, that depend on the Structure and Mechanism of these Fibres, thus curiously interwove; and

to discover, how those finest Touches that CHAP. 10thus highly elevate the human Soul, are transmitted to the Brain, and struck on the Seat of the common Sensorium.

GIVE me Leave here to go on, and point out the hidden Springs of these mysterious Motions: Nothing will I say, offensive to the chastest Ear, nothing inconsistent with the most reserved Modesty.

THE Nerves that produce these wonderful Changes, and most delicate Sensations in the Animal OEconomy, are most sinely display'd on the Organs destin'd by Nature for the Office, Use, and Secretion of these Parts. By Mycroscopes, it appears, that the Filaments of these Nerves are most minutely divided, and their Machinulæ set at the least Distance from each other, which is the Reason, why they are most sensibly affected with the finest Touches, from the smallest Impressions of the Object, and why the Action is so inexpressibly pleasing.

PART I.

In those agreeable Transports, arising from the Action of Organs thus finely modulated, all Nature is in a Ferment; the Blood boils, the Pulse flutters, and the very Imagination is ravish'd with Extacy. But as fuch noble Caufes produce Effects very great in their Consequence; so, if we would enjoy a found State of Health, and preserve a vigorous old Age, should we, but seldom, taste such delicious Morfels, least their too frequent Repetition impair the Constitution, and bring on those Weakneffes, Impotencies, and Gleets, more difficult to cure, as well as more wasting to the Constitution, than those that arise from Venereal Taints.

THE Beneficent Author of our Nature has fix'd the Office of those noble Organs, at such a peculiar Distance from the Brain, that an Impression most exquisitely sensible should be struck on the Mind, upon every Contact of the Object. Had those

those Parts, that minister to these deli-Chap. 10. cate Sensations, been seated a little nearer the Brain, in the same given Circumstances we now enjoy them; those pleasing Touches, would have been above the Bearance of human Nature, and endanger'd the whole Frame of the Animal Machine, every Time we conversed with a fine Woman, from those too exquisitely sensible Impulses, the Nerves would have suffer'd in the Conslict.

Had they been plac'd at a greater Distance from the Seat of Sensation; then the Stimulus had been so faint and languid, as scarce to awaken Mankind into a Desire of propagating their Species; So that this exceeding Sensibility of these Organs is intended to keep warm the Inclinations, least the Sexes in their most degenerate State, should attempt to frustrate these noble Ends of their Being.

WE perceive, even now, the Imagination heighten'd to a surprizing Degree, even more than the Constitution

PARTI. can well bear, in some warm, bilious People, without very great Emotions; and in hotter Climates the Sensations are still more fenfible, which, doubtless, was the Reason, why the sovereign Author of our Nature was pleased to enjoin to the Fews the Rite of Circumcision, that the most fenfible Part being continually exposed to Accidents, might thereby be less sufceptible of these pleasing Sensations; and consequently the Mind less prone to these debasing Actions, that are so apt to vitiate our Thoughts, and enervate the Conflitution.

> AND here I cannot but observe, that the Rife of Lust is immediately from the Fibre, nor is capable of Extinction; for the Humours of a human Body being fecreted, according to the Laws of Nature, that is, according as the Vessels unfold; and the Vessels unfolding in Proportion as the Person advances in Years; it naturally follows, that Infants and Children are incapable of this Passion, because their Vessels scarce ever unfold, un-

der our Climate, before the thirteenth or CHAP. 10. fourteenth Year; but as foon as they begin to unfold, then the Juices drilling down the spermatick Arteries, and being fecreted by the Testes, produce a new Stimulus, that transmits a new Sensation to the common Senforium, which furnishes the Mind with a new Idea, we call Luft; and this Lust is only a Perception of the fame Idea in the Mind, that is, a Senfation in the Organ; fo that the Fibres that help forwards the Secretions, on whose Stimulus these finest Sensations depend, must be first in Motion, before the Mind can perceive the Idea of Luft; for they occasion the Sensation, of which the Lust is only the Effect.

How the Constitution comes to be ener- How the Convated from a too eager Pursuit after ve- to be enervated, nereal Pleasures, may be worth our while from a too eahere, a little to enquire; for I am fully tervenereal perswaded, that they seldom or never arise from an Abuse of the Marriage-Bed; and I lay it down as a fundamental Proposition most certainly true, That were

PART I. all Men as good as they should be, and never debauch'd their Constitutions with any lewd Women, before they convers'd with their own Wives, that then all Women would be pleas'd, and Men themfelves most highly pleased in pleasing them; and those Persons that cannot, by a virtuous Abstinence, render these delicate Senfations always agreeable, always pleafing, and always new, are highly unfit for the chafte Embraces of the Marriage-Bed.

> Away with those Men, therefore, that tell us, that these Sensations are common to us with Brutes: I deny that they are common to us with Brutes; for as far as the Reason of Man is infinitely superior to the most sublime Sensations of Brutes, so far does this Sensation in Man, infinitely excel that of Brutes. have this Senfation no farther, than that the Stimulus or Propenfity, may overbear their Inclinations, rather to this than any other Action: But in Man it is struck with the most surprizing

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Impulse, whereby it is able to over-bear CHAP. 10, the noblest of the intellectual Faculties themselves. And this is the Reason why a very pious and learned Judge, was pleased to declare, That there was no Reason beneath the Girdle; that is, no *Reason in the Head of the sharpest Reafoner, strong enough to overpower those Reasons, that spring from this Sensation. And hence arise those delicate Senfations that Men naturally enjoy, that are endued with a fine Tafte for Women; and which, as a Gentleman was pleased to express himself, uplifts the Imagination to the highest Pitch, that Mortal Minds can fafely foar: But

^{*} Mistake me not, I am no Advocate for a lawless Liberty: I only attempt to discover the Power and Force of this Sensation in Man, above what it is in Brutes. I would rather die a thousand Deaths, than prescribe any Liberties, inconsistent with the Laws of the Marriage-Bed; or that may tend to give any Toleration to those Monsters of Men, whose libidinous Inclinations, neither the Laws of God or Nature can restrain.

PART I. But when the Mind is thus high up-1 lifted, the least higher Impulse would crack those noble Springs, disconcert the Animal Faculties, and put an everlasting stop to all their Motions.

> THESE Weaknesses, Wrenches, and Sprains that often attend the vicious Pursuit of those lawless Pleasures, certainly arise from all the Animal Fibres being elevated to a furprizing Degree, above their natural Standard; from a too great Expansion and Dilatation in the Motion of the Animal Fluids following on those Degrees of Elevation; and from the Mind itself, or at least its noblest Faculties, being surprizingly agitated upon those Swellings and Conflicts of the Spirits.

> FROM the Animal Motions thus highly agitated, the Nerves must necessarily, in Time, be too much relaxed, and their Machinulæ set at too great a Distance, from each other, ever after easily to be reduced to their proper Standard

Standard again: So that these Parts of CHAP. TO. Consequence, will lose their proper Springs, their proper Actions and natural Sensations: Upon which they will become cold, frigid, and incapacitated for Action, in the same Manner as if they actually labour'd under a palfical Indisposition.

I could here go on, and discover how the Workings of those finest Fibres, that excite these exquisite Sensations, improve the Constitution of the Stomach, Spleen, Liver, Intestines, the Brain, and whole Habit, from the Consent, and Agreement, that all these fine Organs have with each other from the sixth Pair of Nerves; but that would be diving too deeply into these Mysteries of Nature, and disclosing those hidden Springs, that might prove of dangerous Consequence to yulgar Capacities.

GIVE me Leave here to conclude this first Part by recapitulating, as briefPART I. ly as I can, the Reasonings and Arguments of the foregoing Chapters.

WE have observ'd, that the Mind is a Principle depending on itself; That it is capable of Motion and Thinking. When these Motions and Thoughts are irregular, they constitute the Passions; That the Instrument of the Passions, is that Medium that conjoins Matter and Thought; That the Nerves are that Matter on which the Mind immediately difplays its Influence, by the Mediation of a fine fubtle Animal Æther: The Mind, therefore, cannot alter the Circulation of the Blood, but as it first alters the Motion of the Passions, that immediately affects the Nerves, going to the Heart. Those Nerves, thus affected, alter the Motion of the Heart itself; the Motion of the Heart thus affected, alters the Motion of the Arteries, the Motion of the Fluids, which consequently gives a different Beating to the Pulfe.

Hence it follows, that the Pulie beating Chap. 10. languid, and low, and feeble, is a fure Indication, that the Circulation of the Blood is languid, and low, and feeble; That the Contraction of the Arteries, is languid, and low, and feeble; that the Beating of the Heart is languid, and low, and feeble; and, confequently, that all the Secretions made from the circulating Mass, (the Sensations, Passions, and intellectual Faculties themselves not excepted,) are languid, and low, and feeble.

And, in fact, we perceive this Train of Confequences, the just Workings of Nature, and an evident Demonstration, that all the Parts of the Animal OE-conomy, the Intellectual Faculties themfelves not excepted, are depending on the Fibres; and that all the several lower Faculties, receive Pleasure or Pain, Joy or Grief, just as the Arteries are elevated or depressed in their Motions above or beneath the Standard of Nature. So that here we have the just Proceedings of Nature, in judg-

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PART I. ing of the different Sensations of Animal Bodies, in Relation to their being under the Influence of either Pleasure or Pain, Joy or Grief, and Health or Sickness.

The End of the First Part.





ANEW

SYSTEM

OF THE

SPLEEN, VAPOURS,

AND

Hypochondriac MELANCHOLY.

PART II.

CHAP. I.

Of the Certainty of THEORIES in relation to the Practice of PHYSICK.



HUS far we have clearly CHAP. 1. discover'd, that the Motions of the Mind, and its Facul-The Design of the first Part. ties, are purely Organical;

that is, that the regular Exercise of the Understanding depends on the Well-being of the animal Fibres, wherein it resides;

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PART II. resides; and which the Mind has a Power to employ in regular or voluntary Actions; and, farther, we have attempted to discover the Nature of these several Ideas that enter by any of the Senses; what they are in the Objects themselves; in the Instruments that convey them, and in the Understanding receiving their Impression.

This, I think, is advancing one Step further, in the Knowledge of our Thoughts, and is a clearer Explication of those abstructe Phænomena, than to solve all by saying: It is the Rule of our Constitution; God Almighty has form'd us so and so; and subjected the Matter and Motion of our bodily Organs to the Obedience of our Thoughts, and the imperial Power of the Will.

The Defign of this Second Patt.

In this Second Part, I shall go on to consider how these several Instruments come to be disaffected under the Spleen, Vapours, and Hypochondriack Melancholy: What Alterations, in the Motions of the nervous Fibres, are necessary to disconcert our Thoughts; the Symptoms, Phænomena, and Changes, that necessary

rily ensue, in the Mind, upon these Dis-Chap. 1. affections; and the Grounds and Causes upon which they are supported; for, if either the Mind itself, or, to speak more properly, the Organs by which the Mind acts, be disconcerted, the Mind must necessarily give some Tokens of its Disasfection, which, it could not give while those Instruments continued under the regular Insluence of Health.

INDEED the kind and beneficent Author of our Nature has implanted in every human Individual a Principle of Reason; whereby he might discover the Laws of Nature, as far as they concern his Conduct of Life: And as Difeases are one of the greatest Evils he can guard against, so is it the Business of the Physician to discover truly and certainly, on what Causes these are grounded, what Matter they confift of, the principal Organs in which they are lodg'd, and how they may fafely be eradicated without the least Detriment to the Body; and whatever has hitherto been accounted the effential Definition of a Physician, I will venture to speak

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PART II. it in one Word; That he is best deserving of that Character, that best knows how to cure Difeases, and remove the Obstructions, that embarrass and over-turn the Motions of the animal OEconomy.

Of the Alterations and Changes that farily infer upon human Bodies.

Now it is impossible he can know, absolutely and properly, how to cure Diseases neces-Diseases; unless he understands their Symptoms, Causes, the Principles on which they depend, the Progress they make, and the Alterations and Changes they infer upon the Constitutions of animal Bodies; and as all the Alterations, Symptoms, and Phænomena, have their Dependence entirely on the Changes that happen in those external, obvious, senfible Qualities, we call the Temperatures of the Habit; and as those external, obvious, sensible Qualities, of Heat, Cold, Dry, and Moisture, are dependent on the Motions of the Solids and Fluids, and alterable from their different Degrees of Impulse; so it follows, that all Difeafes must necessarily arise from the System of the Solids and Fluids intended or remitted in their Motions, above or beneath the Balance of Nature; fo will it follow, that the different Degrees of CHAP. 1. Difeases will always be attended with different Degrees of these Motions, which will infer different Changes in these external, obvious, fenfible Qualities, in Proportion as the Motions are intended or remitted; fo will it follow, that the That every peculiar Symptoms indicating the Height Physician, that or Severity of the Disease, will be dis-Motions of coverable from the Intenseness of these intuitive View external, obvious, sensible Qualities : of the Causes And thus we discover those Starts and Symptoms Contorsions that often involuntarily affect of Diseases. the Muscles of the Countenance in divers nervous Fevers, which arise from the Violence of these Motions: and if it should so fall out, that these external, obvious, sensible Qualities, should retreat inwardly upon the Habit; yet, even here, the Pulse will discover that Retreat; for it's impossible that the Qualities of Heat, Cold, &c. can retreat, but that the Motions will accompany them; or that the Motions can retreat, unless there be Obstructions form'd inwardly upon the Habit; or that Obstructions can be form'd upon any of the internal Organs, but that the Beating of the

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PART II. the Heart must be enforc'd; or that the Beating of the Heart can be enforc'd, without the Variation of the Pulse, because the Beating of the Pulse has an immediate Dependence on the Artery that goes to the Heart; fo that in this very Cafe, which feems most remote from an intuitive Knowledge, the Pulfe will inform us, not only of this Retreat, but of the Degrees of Motion that attend it.

the most difplexing Caies.

'And that 'in Thus it most evidently appears, that ficult and per- we have the furest Grounds to go upon, even in this most perplexing Case, where the external Habit changes its Temperature; which, I think, is as much as can be defir'd in a Point acknowledg'd not felf-evident; though, after all, I must confess I cannot discover why it may not prefume upon as good a Title to Self-evidence, as any Proposition whatever, fince Self-evidence, in relation to natural Substances, confists in nothing more than the Attestation, that all the Senses give to the Properties of Bodies, that regularly fall under their Cognizance.

CHAP. I.

THE Senfes, indeed, may be mistaken in judging of Objects, not properly ap-In what Cases ply'd to their View, or plac'd in an im-may be mistaproper Medium, or at too great a Distance; but what every one in Health feels and fees, he certainly knows to be a Perception; and if I fee and feel the Habit of the Body Hot and Dry, it is as evident a Demonstration to me as any Mathematical Problem whatever, that it is endu'd with those Properties I call Hot and Dry; and confequently that the internal Motions of the Solids are forcibly impress'd on the Fluids, the Secretions of the Juices accelerated, and the Blood greatly divided, which are all Properties absolutely necessary to make the Habit Hot and Dry.

THESE Changes in the external, fenfible Qualities, upon a Change in the internal Motions of animal Bodies, therefore, give us an intuitive Knowledge of the Nature, Caufe, and Symptoms of Diseases; which, as Mr. Lock very well observes, is the highest kind of Evidence our State and Condition is capable

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PART II. of; and which arises from our Perceptions themselves: than which, we cannot have any greater Certainty, that Things are what they are.

Of the Grounds quiries.

If, therefore, we accurately furvey of Certainty in any of the external, visible Qualities in human Bodies; as for Example, Suppose the Constitution be Hot and Dry, and the Countenance high colour'd; is it not evident to the least difcerning Judgment, that the Solids are naturally springy, tense, or elastic; the Impulses strong and quick, the Juices thin, sharp, and eafily moveable; whereby they are driven off from the Habit in greater Quantities, than in any other Temperature; which is the Reason why we denominate the Constitution biliose: If, therefore, under this Temperature, an obstructed Perspiration ensue, upon taking Cold, or any other Caufe, will not a Fever of the Inflammatory kind naturally arise? and if so, will not Bleeding, and gentle, opening, relaxing Medicines be properest to appease the Symptoms? for to attempt to enforce a Breathing will only increase the Fever.

CHAP. I.

On the contrary, under lower Degrees of Heat, or when the Constitution appears Cold and Moift, is it not a certain Indication that the Motions are tending beneath the Standard of Nature, that all the Secretions are flower, the Impulse of the Solids weaker and more languid; which forms the Constitution in general of a more lax Disposition, than what was observ'd in the foregoing Temperature; and therefore, is it not natural to conclude, that this kind of Habit is inclinable to the Scurvy, Afthma, or Dropfy; if not to some nervous Disease of the Palfical kind? for all Phlegmatic Constitutions are cold, and cold Constitutions produce the foregoing Difeases, from the Abatement of their Motions, which often terminate in Palfical Affections.

AND thus, we arrive at the highest Degree of Certainty, in judging of the internal Motions and their different Degrees, from the external, obvious, sensible Qualities; for these Qualities always depend on the internal Motions, and are certain Indications

PART II. Indications to what Height and Degree these inward Motions arrive.

THESE external, obvious, visible, or sensible Qualities of Heat, Cold, &c. therefore, are of the same Consequence to Physicians, that the Sea Chart or Compass is to Mariners; and as the latter informs the Sailor of the Course he is to steer, so the former directs the Physician to the clearest Indications, not only to discover the most abstruct Causes, but also to administer a Cure in the most stubborn and perplexing Diseases.

The Application of the foregoing Reasonings. To apply all this Reasoning to the Spleen, the Subject of our present Discourse: These external, sensible Qualities, do not only discover to us the different Degrees of Motions, but the Disference of Constitution depending on those Motions, and the different Nature of Diseases most liable to affect those different Constitutions. And though no Constitution is so happy as to be able to plead an entire Exemption from the Spleen and its Consequences, seeing all of us have, more or less, a Tincture of

it, in our first Make and original Consti-CHAP. 1. tution; yet fome Perfons are much more naturally inclin'd to it than others. People of a Constitution highly phlegmatic, when they come to be harrafs'd with the Misfortunes of Life, or happen to meet with any fudden Turn in their Affairs are most commonly subject to the Hypochondriack Melancholy: And this more-especially happens, if they be naturally inclinable to black, gloomy, and difinal Apprehensions; their Thoughts full of pensive, abject Ideas; for those despairing Intercourses with Self, sadden the Mind, damp the Passions, and consequently depress the Motions of the finest Nerves, on whose Powers the Action of the noblest Faculties have their Dependance: And if we descend to examine the State of the Blood, we shall discover it naturally thick, heavy, and very unfit for the Secretions of the animal OEconomy.

On the contrary, biliofe Constitutions are sometimes observ'd to suffer under the same Disease, from a very different Origine, for being brisk, vegete, and

PART II. airy in Disposition, their Passions naturally ftrong, fierce, and greatly inclin'd to the Objects they contemplate, from the quicker Impulses they strike upon the Seat of the common Senforium, it must neceffarily follow, that their Minds will be unable to bear any fudden Shock, that cross upon their Affairs, without very great Emotions: And in all Cases where the Passions are strongly rebated. that is, meet with a Counter-Buff, in the eager Pursuit after Objects, there, the Motion of the Fibres upon the Recoil must fink beneath their natural Standard; upon which the Mind itself will fink or fadden, or at least appear to do so, according to the Perception of the Patient; and we often observe that Persons the most chearful, gay, and vivacious in Converfation, when alone, are not without their frequent Intervals of fad and gloomy Moments.

To conclude; As the well or ill Exercise of the Faculties depends entirely on the well or ill Exercise of the Organs serving these Faculties; so it naturally sollows, that where-ever these Organs

Hypochondriack Melancholy.

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are disconcerted in their Motions, the CHAP. I. Exercise of those Faculties will suffer a Change, which will be attended with different Symptoms, according to the different Constitution of the Patient: And this is the Reason of those different Symptoms, that often arise, under the same Disease in different Habits; and why some People of a hot biliofe Constitution, when they start from their Reason, in the Spleen, or Hypochondriac Melancholy, are raging, furious, and diffracted to the last Degree of Madness; while others of a colder Temperature are incident to deep Cogitations, languid Thoughts, and to revolve long upon the most dejecting Ideas; which often terminate in the natural Melancholy Madness.



HOM CHCMONS MORE

CHAP. II.

Of the Reality of the SPLEEN, VAPOURS, &c. and the dangerous Consequences that attend their Neglect.

PART II. UT in vain have we endeavour'd to discover that Disposition of Body most liable to be affected with Spleen, Vapours, and Hypochondriack Melancholy; in vain have we attempted to fupport the Causes of that Disposition upon the different Temperature of the Solids, and the Caufes of that different Temperature on the different Springiness of the Fibres, that communicate a different Impulse, Motion, and Secretion to the Blood and Juices: If, after all these Arguments, and Reasonings upon this Subject, we must account of the Spleen as an imaginary Difease, that has no other Support than a wrong Turn of the Fancy.

CHAP. 2.

But, as, in the former Chapter, I attempted to discover the Difference of Constitutions, that, so greatly, diversify the same Disease in different Bodies; So, in this and the following Chapters, I shall endeavour to remove those vulgar Prejudices and Mistakes concerning the Nature of those Affections, by demonstrating the regular Progress of the Symptoms, and their fatal Tendency, when not prevented by timely Applications.

The World, indeed, has been a long Time at a Loss to know what to make of those Disorders we call the Spleen, Vapours, and Hypochondriack Melancholy; nor have they been less puzzled to discover, under what Class of Diseases they might most properly range them. This is the Reason, why some Gentlemen, when they cannot reasonably account for those surprizing Phænomena that often arise in the Spleen, are so ready to resolve all into Whim, or a wrong Turn of the Fancy.

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BUT if that Variety of Symptoms, that often affects the Body, under those Disorders, arise from a wrong Turn of the Fancy, I hope these Gentlemen will be so candid as to inform us, from whence that wrong Turn of the Fancy it self arifes, that is suppos'd to give Being to all those Symptoms: For I deny, that the Thoughts themselves can ever start from a regular Way of Thinking, without inferring, at the same Time, a Change in the Motions of the Animal Fibres; whether the Object causing that irregu-Iar Turn of Thought, was primarily struck upon the Mind, and so acted upon the Body, by first acting upon the Passions; or was first lodg'd in the Fibres, and, by affecting the material Organs, after that, disconcerted the Passions: and after them, the Mind: I fay, which way foever the Shock was received, it's impossible that the Mind can fuffer, and the Body be unaffected at the same Time, & vice versa. For, we perceive, in those violent Passions or Transports of Anger, that are big enough to raife a temporary Madness, if, at the same Time, they do

not disconcert the Animal Organs; upon Chap. 2. the Abatement of these Motions, the Mind will naturally subside, settle, and recover its former State of Tranquility again; which is far otherwise, when the Organs, that support the Passions, are affected, for then the Madness or Discomposure holds on, and the Patient often continues under its Insluence whole Nights and Days without the least Intermission.

The Criterion, therefore, by which How to judge we judge, when all the Motions of dard of Health, the Animal Fibres are regular; that is, when the Body is in a State of perfect Health, is discoverable from the natural Power of our Perception, which depends on the natural Course of the Humours, on the natural Secretions of the Juices, and on the natural Contraction of the Solids; for it's impossible, that any particular Secretions can be vitiated, but that there will be Pain and Uneafiness, or that there can be Pain and Uneafiness in any Organ, but that the Mind will perceive it. This Perception arises from the necessary Connexion, Confent, and Agreement, that all those fine Springs and Fibres, that compose the N

PART II. the Animal Machine, hath with the Mind and its Faculties.

EVERY Change of the Mind, therefore, indicates a Change in the bodily Organs; nor is it possible for the Wit of Man to conceive how the Mind can, from a chearful, gay Disposition, fall into a fad and disconsolate State, without some Alterations in the Fibres, at the same Of the relative Time; for the relative Gravity of the Gravity of human Bodies be-Body, that is, what we call Lowness of the Spirits, is no otherwise increas'd upon these Changes, but as the Body weighs their Motions. heavier to the Mind; nor is it possible that the Mind could perceive any Addition of Weight, if the Fluids did not move flower in the Veffels, upon which their attracting Principle is increas'd to a Degree greater than is confiftent with a

ing increas'd

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FROM the foregoing Arguments, it clearly appears, thar whenever the Mind perceives itself uneasy, low-spirited, or dejected, it is as full a Demonstration, as the Nature of the Thing will admit,

freer Circulation, and confequently a re-

gular Standard of Health.

that

that the Instruments, by which the Mind CHAP 2. directs the Powers of its Operations, are affected; and this holds good, more est-pecially if the under Faculties produce not their regular Effects, agreeable to the Determination of the Will.

But I perceive here an Objection may arise to the foregoing Arguments. What, may fome fay, Do we not perceive Men to declare, that they cannot go, walk, nor stir, from the Place where they are fix'd, when Force has oblig'd them to walk? Indeed, I deny not, but that, by Force you may remove a dead Man from Place to Place, or to what Place you please; but can a Man under the Palfy of the whole Body, go, move, or walk? A Relaxation of the Glands of the Brain is of the same Confequence to the Mind, that a Relaxation of the Machinulæ that compose the nervous System, is to the Body; and as an Affection of the latter difables those Organs, where it happens, from regularly doing their Duty; fo any Indisposition in the former, will disable the Mind from regular Thinking.

PART II.

THE Body often could walk, if the Mind was able to direct walking; and the Reason why the Mind cannot direct walking, is, because those fine Glands of the Brain, its immediate Instrument, are affected. Now, in order to voluntary Motion, it is necessary, that the Mindshould be as free to direct, as the Will to obey its Direction, and the bodily Organs to execute the Directions of the Will; but if a Languor be in the Mind, through a Palfical Affection of the fine Fibres of the Brain, then the Mind will be unable to direct, the Will to obey the Directions, and the bodily Organs to execute the Determinations of the foregoing

In vain, therefore, under these Circumstances, do you expect Obedience to your Demands; you may as well bid a blind Man see, or a deaf Man hear, as bid one of these Wretches walk, till you have, with generous Medicines, removed the Pressure, that chains him down to this dark and gloomy Way of Thinking. A Man perceives himself sad, dejected, or low-

low-spirited, he takes a Glass of fine, CHAP. 2. generous Wine, which raises his drooping Spirits, and renders him alert, merry, and chearful: From whence this Change, I pray? Does the Wine immediately work upon the Mind, in order to produce this Alteration? No, certainly; but by first enforcing the Motion of those Nerves, that ferve the feveral Senfes, it enables the Mind to fee the feveral Objects, that present themselves to its View with greater Clearness; so true it is that the Disposition of the Mind follows the Direction of the Fibre, and is elevated or depress'd, in Proportion as the nervous System is intended or remitted in its Motions, above or beneath the Standard of

Upon these Grounds, then it clearly It's impossible the Mind can appears, that neither the Fancy, nor perceive the Imagination, nor even Reason itself, the Idea of Pain, unless there be highest Faculty of the Understanding, a real Cause of Pain in the can seign a Perception, or a Disease, Body. that has no Foundation in Nature; cannot conceive the Idea of an Indisposition, that has no Existence in the Body; cannot seel Pain or Uneasiness in any Part, N 3 unless

Part II. unless there be Pain or Uneasiness in that

Part: The affected Nerves of that Part
must strike the Imagination with the Sense
of Pain, before the Mind can conceive
the Idea of Pain in that Part; and therefore, it is in vain to go about to persuade
any Man, that he is perfectly at Ease,
while he, at the same Time, perceives
himself in great Pain and Anguish from
divers Affections of the Body.

Our Perceptions are certain Evions are certain dences of what the Soul really suffers
what we feel from the Affections of the Body; and so
long as it retains any Ideas, it certainly
And of our knows, that all its Perceptions, how irreown Existence
and all other
Bodies that ex- them, are real Impressions made on the
ist without us. Mind from the Organs of the Body; so

Things in the World without us.

But here, perhaps, some Persons may be ready to object, that if our Perceptions be such certain Indications of the Existence of a real Affection in the Body, how

that, to them it is, that we owe the most

evident Demonstrations of our own Be-

ings, and of the Existence of all other

how comes the Patient so often mistaken CHAP. 2, in judging of the Danger attending these Perceptions in this Difeafe.

To this I answer, that it arises from The Perceptihis confounding the Perception of Painferent from or Uneasiness, with the Perception of the Perception of Danger. Danger, arifing from that Pain or Uneasiness; and because he perceives himfelf in great Pain, therefore concludes himself in great Danger. Now the Perception of Pain, is an Idea quite different from the Perception of Danger. The former always arises from real Causes, and is a certain Perception in the Mind, depending on the internal Symptoms of the bodily Organs: But the Knowledge of Danger is to be calculated from the Circumstances of the Parts affected, that depend on a Chain of Consequences, out of the Reach of the Patient to comprehend; fo that, in all Cases of the Spleen, we ought to diffinguish between the Perceptions, and the Knowledge that accompany those Perceptions. The Perceptions are always real Apprehenfions, from an intuitive View, that the Mind has of the Degrees of Pain and UneafiPART II. ness, that, at any Time, affect it, thro' an irregular Impression of the corporeal Organs; he, therefore, may certainly perceive his Pains and Uneafineffes to be what they are, without perceiving the Danger that attends those Impressions, and which has nothing to do with those Degrees of Perception. In a Word, every Perception of Pain, is a certain Indication that the Body is affected; but every Confequence drawn from the Degrees of that Perception, is not a certain Indication of Danger; but must be judg'd of from the visible Circumstances of the Parts affected, and from the known Phænomena incident to affect the feveral Parts under this Disease.

EVERY one, therefore, will claim a Right to be Judge of his own Pains, and his own Uneafinesses, tho' he cannot of the Danger that accompany those Impressions: And as no Man can transfer the Pains and Uneasinesses he labours under to another; so is it impossible that any Person can make another sensible, and consequently judge of the Pains and Uneasinesses he labours under.

CHAP. 2.

THE Pains and Uneafinesses, therefore, are to every one what they conceive them to be; and we must calculate their several Degrees from the Complaints of the Patient, the Symptoms he labours under, the Nature of the Disease; and not, from any imaginary Whims and Notions of our own Brains, and conclude the Patient seels no Pains, because we perceive none in ourselves.

I KNOW fome Gentlemen, when they The Danger of perceive a Disease untractable, and not Diseases as if easily yielding to the Force of Medicines, imaginary, exemplify'd in are very ready to charge it upon Spleen the Case of and Vapours; that is, according to their Acceptation of these Words, Whim and Fancy; but was the Case of Mrs. J. only Whim and Vapours, when she was rallied out of a real Disease by a quacking Fellow, that assur'd her she should be well the next Day, tho' she expir'd before Eleven of the Clock that Night; so that if she was well, according to this Gentleman's Prognostication, it was in the other World: A Change that very

PART II. few of us are willing to make, so long as we can conveniently reside in this.

GIVE me leave here to argue this Point a little more closely, in order to remove these vulgar Prejudices, that too much prevail in the World. In the Spleen, Vapours, and Hypochondriack Melancholy, the Patient often perceives a Faintness to seize his Spirits, which is fucceeded with Motes flying in the Air backward and forward before his Eyes, sometimes as if Clouds and Mists were floating in the Atmosphere: Now that these Objects are not there as the Patient perceives them, I grant; and the Patient himself is very well appriz'd of the same; but then, How comes his Organs of Sight to mifrepresent Objects, or bring Objects into View, that have no real Foundation in Nature? I do not mean, Does he imagine he fees what is not, but is the Cause of that imaginary Vision, a mere Creature of the Fancy, or does it arife from the Imparation of the Optick Instruments? From the latter certainly.

CHAP. 2.

Corpuscles of the Fluids attracting each other; which, as they pass before the Retina, darken the Atmosphere in certain Points, which Points appear to the Patient, as if they were real Motes. The Cause of these Phænomena arises from the Crystaline Humour being too grosly secreted, which demands the immediate Application of some proper Remedy that may divide, attenuate, and resolve the Obstructions of those Fibres that secrete this Humour.

Take it in the other Sense most liable to be affected under the Vapours: What is it that creates that tingling Noise in the Ears, that hissing Sound, that frequently affect vapourish People; is this also mere Whim? He hears this ringing Noise, it disturbs his Rest, and awakens him from his Slumbers, which certainly is more than nothing.

I AM not at all furpriz'd at the frequent Complaints we hear abroad, of formany People's losing their Sight and Hearing;

PART II. Hearing; when Gentlemen are so ready to resolve the Desects of those noble Organs into Whim and Fancy, by which Means, their Disorders are suffer'd to gain Ground, and affect the Patient with an irrecoverable Blindness and Deafness.

But, further, are the Pains that affect his Limbs, that affect his Back and Sides, all imaginary Whims? and, to come closer to the Matter, are those Indigestions, those severe, racking, Cholick Pains, those purulent slimy Stools to undergo the same Fate? If this be the Way of resolving Diseases, whose Causes we may not, perhaps, be very well apprized of, I am afraid, in Time, we shall come to account the most dangerous Diseases imaginary, and then if the Patient should fall a Sacrifice thro' our Ignorance, who may he thank for his Fate?

The Perception of Health FROM the foregoing Arguments and is inseparably Reasonings upon this Subject, it clearly connected with its Exi- appears, that to be in Health, and perstence. ceive it, is the same Thing; and that it

Hearings

Health and not perceive it, and that there is a necessary inseparable Connexion between the Existence of Health, and the Perception of that Existence:

From which, whoever deviates, has a Demonstration as evident as the Nature of the Thing will admit, that his Constitution is starting from its natural Standard.

INDEED, I shall not deny, as I have already observ'd, but that the Mind may be mistaken in judging of the Degrees, as well as Danger of a Disease; but still the Cause of that wrong Judgment must arise from some Disassection in the Glands of the Brain, the immediate Instrument of regular Thinking; still there must be some real Disorder in the bodily Organs, some real Foundation for Complaint; still the Springs, Wheels, and Pullies of the Constitution must, by some Means or other, be disconcerted, or else the Mind can never receive the Impression of a Disease.

Machine

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The Fancy, we know by Experience, is a roving Faculty, and not eafily confin'd to proper Bounds; but yet while her Organs are in Order, can fee thro' all these Mists that, sometimes, under a Fit of the Spleen, cloud her Actions, and would persuade us, that these Bodies of ours are chang'd into Tea Pots, Glasses, Goose Pyes, and the like odd and ridiculous Transformations: These wrong Turns of the Fancy, all arise from Affections of the Body, which depend on the irregular Motions of the Nerves, that make unsuitable Impressions on the Imagination.

While the Nerves, therefore, are in good Plight, the Ideas they convey through any of the Senses will be regular, just, and clear; upon which the Understanding will judge and determine of Objects, as they are, by the Laws of Nature, made to exist to a Mind sitly dispos'd, with proper Organs to receive their Impression: But if the Structure or Mechanism of these Organs happen to be disorder'd, and the Springs of the Machine

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Machine out of Tune; no Wonder the CHAP. 2.
Mind perceives the Alteration, and is affected with the Change.

Now the Spleen is a Disease that puts a Blind on the Faculties of Mankind, whereby Persons so affected, think, speak, and act, sometimes little different from those under a Phrensie. How often may we see the greatest Philosopher suffering under the Weight of this Diforder, and, in vain, labouring with all his Might to get rid of its Tyranny. It is not long ago fince a very learned and ingenious Gentleman, fo far started from his Reason, as to believe, that his Body was metamorphos'd into a Hobby-Horse, and nothing would ferve his Turn, but that his Friend, who came to fee him, must mount his Back and ride. I must confess, that all the Philosophy I was Master of, could not disposses him of this Conceit; 'till, by the Application of generous Medicines, I restor'd the disconcerted Nerves to their regular Motions, and, by that Means, gave him a Sight of his Error.

PART II. only reboow on gener to see entire M

CHAP. III.

Of the different Species of Splenetick DISEASES.

N treating of the Causes, that diver-I fify the Spleen, Vapours, and Hypochondriack Melancholy, I shall first consider how far these Affections differ among themselves; after that, I shall proceed to discover the Material Differences between them, and those Diseases, that, by a Parity of Symptoms, they feem most nearly related to, as the properest Way to discover as much of their abstruse Nature as is within the Reach of our Capacity to comprehend.

In the foregoing Chapter, I have endeavoured to prove, that the Spleen, Vapours, &c. are real Diseases, and no Ways depending on the imaginary Whims of Fancy. Now, if they be real Diseases they must have Symptoms, whereby CHAP.

whereby the Mind may perceive them CHAP. 3. whenever they appear; for it is impossible, that the Wit of Man can conceive any Idea of a Disease, without Symptoms, or that Symptoms can support themselves in the Constitution without a Cause, or that any Cause can disorder the Frame of the Animal OEconomy without being perceived by the Mind; for where there is no Perception of a Change in the Mind, there can be no Senfation of a Change in the Animal Organs, and consequently no Disease in the Body. I except here to these Difeases that deprive the Mind of all Perception of Objects, as frequently happens in the Apoplexy, Epilepfy, and Sincope.

In most Diseases there is a natural Temperature, that indicates the Constitution more naturally inclined to one Disease than another; but the Spleen seems, almost, an Exception to this general Rule; because we perceive several People affected with the Spleen, not any ways naturally dispos'd to it.

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PART II.

THESE Persons, that are, by the Order of Nature, dispos'd to be affected with the Spleen, Vapours, and Hypochondriack Melancholy, are generally observ'd of a meagre, hirsute Habit of Body, of a dark, pale, and wan Complexion, whose Nerves are finely strung, in the feveral Organs, they compose, which give a most exquisite Sensation to the Parts; and hence it happens, that Persons of this Complexion are so sensibly affected with every the least Recedence of the Nerves from their natural Standard.

The Reason why the Perception of Danger is greatly en-Spleen, above der a Confumption, real Danger attends the latter.

AND here a Question very naturally arises, and that is, why Persons in a Fit of the Vapours think themselves every creas'd in the Moment a dying, and past all Hopes of what it is un- Recovery, when very little Danger attends their Case; while a confumptive though more Patient will scarce believe the least Danger, but flatters himself with Hopes, against all Possibility of Hope, and when not the least Symptom of his Recovery appears.

Снар. 3.

To answer this Point in the clearest Manner, we are to consider, that in the Spleen and Vapours, the Nerves and Fibres relax most in those Parts, that have the nearest Commerce with our Thoughts; that is, those Nerves start first from their Standard, that immediately support the Mind in its Operation of Thinking; and as they are the Instruments of Sensation, it's impossible they can fuffer the least Affection, without, at the fame Time, making the Mind fenfible of the Change; fo that upon the Sinking of the Nerves, the Spirits themfelves must necessarily fink, which will give a Sinking or Sadness to the Mind: This is what we mean by those Lownesses of the Spirits, those Fears and Dejections of the Mind, that generally affect us with those uneasy Sensations under a Fit of the Spleen.

On the contrary, a Confumption, being a Decay of the muscular fleshy Fibres, lays not that Load or Sadness on the Spirits, that must necessarily ensue, where the Nerves are the principal Instruments affected.

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PART II. affected. Besides, in Consumptions, whether of the Phthisical or Atrophical Kind, the muscular fleshy Parts do so gradually melt down, and are struck off from the Constitution, in such minute Proportions, that they scarce give the Mind any Intelligence of their Departure; which is the grand Reason why the Patient will scarce ever believe his Case so dangerous as it really appears to a judicious Enquirer.

rence between pours, and Hypochondriack Melancholy.

Of the Diffe- FROM the best and nicest Observathe Spleen, Va-tions I have been able to make, I cannot discover any other Difference between the Spleen and Hypochondriack Melancholy, than that the Hip. is the Spleen improv'd on the Constitution, through a longer Continuance of the Difease: The Vapours are so nearly related to the Spleen, that whatever can, with any Propriety, be alledg'd of the one; with a very little Variation, may be inferr'd of the other. Both Men and Women, subject to the foregoing Diforders, are liable to be affected with a Lowness of Spirits; both are subject to generate Wind, to a costive Body; both alfo

also are incident to be affected with a sud- Chap. 3. den Failure of the Senses, a casual Absence of Reason; whereby the regular State of the Animal OEconomy is sometimes greatly interrupted: So that these Disorders receive their different Natures from their affecting different Sexes; for what the Vapours are in Women, that the Spleen is in Men, and if the Vapours are subject to Histerick Fits, the Spleen is sometimes incident to be affected with the Epilepsy, or at least Disorders of the Convulsive Kind, which is the Reason why I treat of them in separate Chapters.

THOSE that are subject to the Hip. The Scurvy seldom are free from the Scurvy at the connected same Time; nor is it possible they ever with the can be separated, unless the Disease takes its Rise from some great Passion of Grief, that depresses the Action of the Mind; and, even then, if it continues for any considerable Time, will not fail to contaminate the Motions of the Blood and other Juices.

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THIS is the Reason, why the Blood, in all Splenetick Cases, is thick, heavy, and what we call Melancholy Blood; for upon a Relaxation of the Arteries, the Blood will remit of its Motions: Upon these Remissions its Particles will attract each other, and form larger Globules than can well pass the minute arterial Fibres, upon which there will be a Defect in the Secretions of the Animal Fluids, that will confequently impair the Action of the Nerves; which is the Reason why, in some Cases of the Spleen, the Impulse of the Nerves is made so faintly on the Seat of the common Senforium, as scarce to awaken the Soul into a Sensibility of its Being. And hence arise that sudden Lapse of the Senses, those Failures of the Spirits, and that cafual Absence of Reason, that often affect the Patient under any great or furprizing unexpected Turn of Affairs.

The Spicen and Vapours the Scurvy is all Chronick Difeates.

THE Spleen and Vapours I look upof all nervose on to have the same relation to nervose Diseases, as Diseases, that the Scurvy bears to those the Ground of of a Chronick Nature; that is to fay, they they are the Grounds on which both CHAP. 3. these different Classes of Diseases are supported; for as it is impossible to conceive how any Chronick Disease can affect the Body without having the Scurvy for its Parent, so is it equally impossible to discover how any nervose Affection can invade the Constitution, without deriving its Origin from this of the Spleen.

IT frequently happens, if great Care be not timely taken, that the Spleen and Vapours make a Transition into Madnefs, by which Word I comprehend all the several Species of Distraction; if the Constitution be biliose, there follows a Mania, which is a most raging involuntary Fury, attended with all the Symptoms, that are fearless, bold, and daring: If Phlegmatick, a fettled, fix'd, moaping Melancholy, wherein the Patient revolves in his Mind all the despairing Ideas, he possibly can crowd upon his Thoughts: And hence it clearly appears, that the different Motions of the Madness depends on the Difference of the Constitution, prior to the Invasion of the Difeafe.

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THIS is that different State of the Body and Mind under these different Affections; both of which have their Periods of Exasperations and Remissions, according as the Patient is more or less indulging in the Use of the Non-naturals, but especially his Diet; and as he is liable to be affected with the different Temperatures of the Seafons, which are known to have a great Influence over all Kinds of Distraction. And this is the Reason why the Fit of Madness is most exasperated at the Spring and Fall, as also at the Full and Wane of the Moon; because at these Periods the Motion of the Brain swells or subsides more, than at any other Times, from the greater or lesser Pressure of the Atmosphere, which is the Reason why these Disorders either rife to an outrageous Degree, or fink into a deep Dotage or natural Melancholy.

To conclude; from the foregoing Reasonings it clearly appears, that these several Species of Melancholy Disorders, are only the same Disease improv'd in different

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different Constitutions, or in the different CHAP. 3. Habits of different Sexes, which excite different Symptoms, according to the different Motions of the Animal Fibres, as will more clearly appear from the following Discourses on those Subjects.



CHAP. IV.

Of the Symptoms of the SPLEEN in Men.

F then these Affections, call'd Spleen 1 and Vapours, be real Diseases, as CHAP. 4. appears from the Reasonings and Arguments I have already advanced in Support of their Existence, they must have certain Marks and Characters, by which we may diftinguish them from a healthful Temperature; and certain * Pathogonomicks * Inseparable or inseparable Characters, by which we that always may discover their specifick Nature, and appear when the Discase is distinguish legitimate.

Of the Spleen, Vapours, and

PART II. distinguish them from all others, that come under the same Class.

THESE are the effential Attributes or Habitudes, that necessarily constitute every Disease. The Symptoms give us the Idea of a Change in the Constitution, the Pathogonomicks indicate the inseparable Symptoms, that diffinguish that Change; so that here we have certain Marks both to discover the Disease, and specify its peculiar Nature; for while the Nerves ferving the feveral Senses, and the Use of the Brain, that supports the common Sensorium, continue their proper Action, the Impression of Objects will be regular, and the Mind perceive every thing to be what it is; therefore it follows, that whenever the Mind begins to entertain Ideas different, from what they are in Nature, or what Nature is made to represent them to a well-dispos'd System of Organs, that is a Demonstration as clear as can be given, that the Nerves are starting from their natural Standard.

Of the first Symptoms of the Spleen.

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PERSONS, therefore, when they first perceive themselves seiz'd with the Spleen,

complain of a manifest Change in the CHAP. 4. Constitution, a Decline from a better to a worse State of Health; and whereas before their Spirits were gay, merry, and chearful, they, at certain Intervals, perceive them to flag, and the Constitution of Mind to be dull, heavy, and uneafy. This first Scene of the Spleen is usher'd in with a gaping and stretching of the Muscles of the Jaws at certain Intervals; the Patient yawns several Times, stretches out his Arms, and heaves up his Breaft, as if tir'd, or as they generally do that have laid too long in Bed; and because these first Symptoms are rather attended with Uneafiness than Pain, and give little Disturbance to the Patient, he passes them over with very little Attention.

UNDER these Symptoms the Complexion is wan, pale, and a little declining from its usual Vivacity; the Eyes appear dull, and of a faded Aspect, not unlike those that are affected with the first Beginnings of a Decay or Consumption. If the Stomach at all suffer under the first Beginnings of the Spleen, (for I have known several Cases where the Stomach

PART II. Stomach has not been in the least affected) then the Appetite is faint, which comes and goes by Fits, and is very precarious. Under these Circumstances, unless you presently get ready what they have an Inclination to eat, the Appetite immediately vanishes, after which they cannot endure the Sight of Victuals: To these Symptoms succeed a Lowness of Spirits, accompany'd with a Faintness and Dizziness of the Head, which is the Reason, why they so often take to Drinking of Drams, or hot fiery Spirits, that, instead of relieving these Symptoms, only haften on the Difease, and facilitate their Ruin.

Of the Progress of the Symptoms.

FROM the Leavings of the Chile through Indigestion, or a Slowness of this Bowel to perform its Office, arise these Crudities, that being chang'd into Wind, surnish out the greatest Part of Splenetick Symptoms. If this Wind sinds a Vent by the superior Orifice of the Stomach, it arises in frequent Rists, Belchings, and Hiccoughs, that are hot, sharp, and sour to that Degree, as sometimes to set the Teeth an Edge; but if these

these Fumes are unable to force a Vent Chap. 4. this Way, then the Wind descends into the Bowels, which passing along that winding Pipe, we call the Intestines, excites a new Scene of Symptoms. Hence arise all these strange Murmurings in the Bowels, these Rumbling, Grumbling, Croaking, Catterwauling Conslicts, so unusual sometimes, that you would be apt to believe, that Cats are wawling in the Belly.

WHEN the foregoing Causes, by the Pressure of the neighbouring Parts, are forc'd into the Fibres of the Muscles, the Progress of the Disease is attended with the following additional Symptoms: His Limbs are weak, his Legs tremble, which, upon walking, feem fcarce able to support his tottering Carcase; wandering Pains affect his Back, Loins, and Ankles; fometimes they run into his Arms and Wrifts, and mimick Pains not unlike those that accompany the Rheumatism; sometimes the Patient perceives cold, chilly Shiverings to run down his Back Bone, in the same Manner as in the Beginning of an intermitting Fever. The Нуро-

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PART II. Hypochonders on the right and left Side, are subject to be affected with frequent Swellings and Inflammations, greatly disturbing to those Parts.

The Body is very unequal in Relation to its natural Discharges; for sometimes it is obstinately costive, at other times it is obstinately loose; both States are attended with slimy Stools. Under these Circumstances, great Profusions of pale, crude, and watry Urine are discharg'd, that greatly depress the Motions of the Spirits, and damp the Action of the Animal Faculties.

When the Spleen is suffer'd to make this Rayage in the Constitution, it begins to attack the Head, Brain, and Nerves: The Temples more especially are affected with sharp, acute Pains; some are troubled with a Beating or Thumping in the Inside of the Skull, which, to them, seems as if a Hammer was struck against an Anvil; sometimes this Pulsation is felt on the fore, sometimes on the hind Part of the Head.

CHAP. 4.

FREQUENTLY in the Day Time dark Mifts fall before the Eyes, and the Atmosphere appears crouded with Motes waving back and forwards, and not feldom his Sight is wholly interrupted; nor are the Organs of Vision only thus affected, but those of Hearing often undergo the same Fate, and are subject to a hiffing, finging Noise, very troublesome to bear: This Diforder of the Hearing proceeds from Cold already taken, that falling upon the Organ of the Ear, fo relaxes the Drum and Auditory Nerve, that the least Diversity of Weather shall ever after affect it with disagreeable Sounds; and this in Fact we observe, that vapourish People are more liable to fuffer from this tingling Noise, when the Atmosphere is moift, hazy, and greatly overcast, than at any other Time; because then the Weather is aptest to relax the Fibres of the Auditory Nerve to a higher Degree, and consequently infer those Changes in the Organs, that furnish us with the Idea of those disagreeable Sounds.

PART II.

WHEN this Disease has been of any considerable standing, a Vertigo, Dizzines, and Faintness, are inseparable Symptoms, and the Patient, upon the slightest Motion, is apt to break out in moist, cold, clammy Sweats, most conspicuous about the Temples, and Parts of the Forehead: He starts in his Sleep, and often awakes from his Slumbers, terribly affrighted with the Horrors of his Dreams.

ALL sudden Surprizes greatly affect them; and as some have dy'd of sudden, excessive Grief, so others have suffer'd the same Change, under the Pressure of sudden, excessive Joy; the Constitution, under these Disorders, not being able to bear, through an exceeding Tenderness of the nervous System, the Extreams of either Grief or Joy, without a very great Shock and Emotion of the Spirits.

Thus far of the Symptoms that affect Splenetick People in relation to the Habit. I shall now proceed to discourse of those, that arise from the variable Temper of the Mind; not, to speak properly, that CHAP. 4. the Mind ever varies, but only appears fo to do, from the variable Temperature and Motion of the Organs.

SPLENETICK People are observ'd to Of the Sympbe naturally quick of Apprehension, vi- mind. vacious, and of a Mind finely turn'd to contemplate their Ideas; they are often forgetful, which does not proceed fo much from a natural Defect of the Memory, as an Imparation of the Fibres, on whose Rectitude this Faculty immediately depends: They are fubject to very impertinent and groundless Fears, that render Life not only uneafy to themfelves, but greatly perplexing to all their Friends about them. Sometimes they fancy they are just going to die, and call for their Relations and Neighbours, in as formal a Manner, as if they were immediately about to expire.

AND under lesser Disturbances of the Imagination, they are continually complaining of their unhappy State of Life, oppress'd and overborn with Calamities and Assistances; no Bodies Pains are equal

they feel and fuffer: Nor are they less fleady in their Tempers; sometimes they are chearful, gay, and agreeably diverting; by and by the fullen Fit comes on, and they are depress'd to the last Degree of Despair; now again, a Glass of generous Wine shall raise them to the highest Pitch of Life and Vigour; the next Day they are dying, and demand of their Friends to prepare for their Funeral; and, indeed, to recount all the filly, odd, and ridiculous Fancies, that have occurr'd to the Minds of these fantastick People, would swell this little Tract to a large Volume.

Thus, in this disconsolate State, are they a Plague to themselves, their Friends, and all that have any Concern with them; and tho' their Circumstances are in the most flourishing Condition, their Tables spread with all the most delicate Dainties, that Art and Nature can provide; yet that great Blessing Content is absent from their Dwellings; so that they eat their Bread with greater Carefulness and Anxiety, than those that beg it from Door to Door; so far has it pleased

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pleased the divine Providence to level the Chap. 4. greatest Lord upon a Square with the meanest Beggar.

MANG MENDICALEM

CHAP. V.

Of the Symptoms of VAPOURS and HYSTERICK FITS in Women.

In the Beginning of the Vapours, are so nearly related to those that disorder the Imagination of Men under a Fit of the Spleen, that I should not have treated them in separate Chapters, were it not that the Vapours are incident to convulsive Motions of the whole nervose System, whereby, that oppressive Matter, crouded on the Organs of the Brain, Lungs, and inferior Bowels, is cast off in frequent Paroxysms.

I SHALL, therefore, in a more particular Manner, confine my Observations to the Symptoms incident to disconcert the Animal Springs of the Fair Sex, un-

der

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PART II. der this Disease, because those Fits, vulgarly call'd the Hysterick Disease, are
more frequently observ'd to affect their
Habit, either from a stronger Impulse of
their Passions, or a finer Texture of their
Nerves; tho' I deny not but that, Men
under a Fit of the Spleen, are liable to
be affected with Symptoms of a convulfive Nature.

Of the Symptoms of the Vapours, beas well in the feveral Organs of the Bofore the Invafion of the
HysterickFits. these Fits of Vapours appear. The Female Patient first perceives herself low-spirited, is subject to a Giddiness or Vertigo,
a Lightness or Swiming in the Head, attended with Faintings, and a Weakness
of all the Senses.

UPON any sudden Surprize, the Patient is subject to frequent Sighings, Tremblings, and Palpitations of the Heart; convulsive Twitchings of the Muscles, Tendons, and Nerves, in the Face, Back, and Loins; a troublesome molesting Noise and Rumbling in the inferior Bowels, which often ends in belching Eructations,

and the Rifing of much Wind from the CHAP. 5. Stomach.

THE Appetite rifes and falls strangely; sometimes the Patient is ready to faint away, unless she be immediately supported with Sustenance; at other Times her Stomach is so full, from a Distention of the * Hypochonders with Wind, that she * Are the cannot eat the least Morfel of Victuals: right and lest Parts of the Nor does the Unhappiness of these miser-lower Belly, able Mortals consist only in this Decay Liver and of their bodily Organs, but the same Spleen. gloomy Symptoms most sadly affect their Minds, and chain them down to the most dismal Way of Thinking, that they possibly can conceive.

FEAR, Sadness, and Despair, those cruel Torturers of the Soul, so absolutely possess their Minds, that it's impossible to affect them with the least possible Hopes of Recovery; they fancy themselves obnoxious to all the Ills and Unhappinesses, that human Nature can be affected with, and give themselves up a Prey to the most insulting Passions of Anger, Jealousy, Suspicion, and whatever

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PART II. else can disturb the Tranquillity of their Peace. Their Breasts are Strangers, and even Enemies to Joy, Hope, and Gladness; these chearful exhilerating Passions seldom find Admission within the Compass of their disturbed Minds.

AND as they are thus wavering and unsteady in their Judgments, neither do they observe a Rectitude in any one Action of Life: Now they love a Perfon to Excess, presently after they hate him in the other Extreme; anon they resolve to do such an Action, a Moment after they alter their Purpose, and take directly contrary Measures; fo that thro' the whole Scene of their Lives, you shall observe them constant to nothing but Inconstancy; always wavering, unsteady, and fearful of doing wrong, in the most trifling Concerns of Life; yet in all other Respects, as ingenious, well-dispos'd People, as you would desire to converse with.

Thus far as to the Symptoms preceding the Invasion of the Hysterick Paroxysm, improperly call'd Fits of the Mother, Mother, or Womb; the Antients erro-Chap. 5. neously supposing, that they arose from a bad Ferment or Collection of sharp Humours lodg'd upon those Parts; which Opinion shall be consider'd in its proper Place.

Bur if, through Negligence of the Patient, the foregoing Symptoms are fuffer'd to continue, and harrafs the Constitution, for any considerable Time, they then produce a new Train of Symptoms, greatly different from the former, both in Relation to their Nature and Caufes; for both the Spleen and Vapours arise, in their first Beginnings, from a Relaxation of the fine Fibres of the Brain and Nerves, whereby those Instruments of Thought and Sensation, are let down beneath their natural Standard, from whence all the Symptoms are dejecting. Now the Hy-Of the Invalifterick Paroxysm is excited through a me-fterick Pachanical Necessity in the Solids to dif-roxyims. charge the nervose System of those disagreeable Corpufcles, that are the immediate Grounds of the foregoing Symptoms; and as this mechanical Necessity arises from the Motions of the Nerves, exerted

PART II, exerted at these Times to restore their contractile Powers, so will it follow, that these Fits, or at least the Symptoms attending these Fits, will be different, according to the different Temperature of the Body, the Causes producing these Symptoms, and the different Passions to which the Patient was subject, before the Invasion of the Disease; and these several Circumstances will be over and above sufficient to excite the Symptoms in one Person, widely different from what they are in others.

I SHALL, therefore, first Attempt to explain the Nature of these Hysterick Symptoms or Characters that form the Fits; afterwards I shall proceed to assign their Causes; and, in Conclusion, shall endeavour to demonstrate the Grounds, on which we have established these Causes; and the Reasons that induced me rather to solve these Phænomena upon the Principles of mechanical Reasonings, than any others; for it is impossible to discover the Causes, before we get a right Knowledge of the Symptoms, because it is a Collection of the Symptoms, united

united under one common Appearance, CHAP. 5. that forms the Disease, and makes it what it is. The Causes support the Symptoms, not the Symptoms the Caufes: These two Principles, being Cause and Effect, do always exist inseparable in Nature; for where-ever there is a Difeafe, there will be a Caufe, and confequently Symptoms; all which will appear in their proper Natures; for the Causes and Effects of Diseases arising only from the irregular Motions of the Solids and Fluids, can have no Difguises, but are conflantly what they appear to be; the Causes real Causes, and the Effects real Effects refulting from those Canfes.

WE, therefore, frequently observe, of the fill that the Access of the Fits, upon the Fits.

Invasion of the Hysterick Paroxysm, differs very much in different Constitutions:

Some faint away in the first Onset, and are affected with a Sincope or Swooning, in which the Action of all the Animal Faculties is highly perverted and distress'd. They involuntarily grasp their Hands, fix their Teeth, and stretch out their

PART II. their Limbs, as in Convulsions, but lie still: By-and-by the Patient gives Signs of Recovery, and is almost choak'd with Rifts of Wind, that they discharge in Belchings. They now weep, then laugh, and figh, and fob, and cry by Turns, till in a Moment of Time they again faint away as in the Beginning. The Hands and Legs are both strongly convuls'd, tho' the Trunk has but little Motion. These Fits they repeat fometimes four or five Times with very little Intermission, no fooner out of one, but into another; at last they gradually revive, and if, as they return to their Senses, they fetch a deep Groan, it is a certain Indication that the Fits are going off.

These Fits generally proceed from great Grief, Disappointments, unsuccessful Attempts in Love, or some other huge Passion, that was too mighty for the weakly Mortal to encounter; they are the most dangerous Kind of Fits, as well in relation to their Consequences, as Dissiculty of Cure; for they argue a Defect of Motion in the Blood of some principal Organ, and that the Fits are unable

unable to discharge the Causes, or at least CHAP. 5. but partially.

In some Cases all the Sensations are of the painful encreas'd to a Degree almost above the Fits. Bearance of human Nature. A fix'd, intolerable Head-ach, is the first Symptom that feizes the Patient: In some the Pain is drawn to a Point, but so excessively racking, that an Awl or sharp Instrument ftruck into the Skull, could not create greater Torture. The same excruciating Pains often dart from the Head into the Back, Stomach, and Bowels, and there excite the Hysterick Cholick, which is attended with frequent Reachings and Vomitings of a green poracious Bile; by-and-by they shoot into the Nerves, Tendons, and finer Membranes of the Muscles, and there excite the Hysterick Rheumatism; and after it has continu'd to afflict the Patient several Days, Weeks, or fometimes Months, with Pains capable of depressing the most resolute Courage, it often terminates in the Jaundice; upon which the Patient evidently perceives himself to grow better; for the' the Jaundice is a very dangerous Disease, yet

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PART II. it's a good Presage, when it comes upon one so much worse, and attended with Consequences much more fatal to the Constitution.

Of the Fits attended with convultive Motions.

In others, again, the whole Body is most cruelly affected with convulsive Motions. In these Fits they immediately fall to the Earth, or are flung with great Violence, as in the Epilepsy: They fometimes lose the Use of all their Senses; the Exercise of Reason, Reflection, and Memory, are at once disconcerted: The Eyes are either immovably fix'd, or fwim and roll in a frightful Manner; by-andby the Head itself is variously agitated and shaken with divers Motions; the Lips tremble, the Nose is contracted, and the Teeth chatter in the Jaws: Some People continually cough and bark in the Fit: In others the Windpipe is so convuls'd from the ascending Spasms affecting the Thorax, and respiratory Organs, that the Patient is in the highest Danger of Suffocation, as appears from the Blackness of the Face in the severest Fits. A little after the Stomach and Bowels work and heave to and fro in a very unnatural Manner;

Manner, the Hands clinch, and the Legs Chap. 5. and Arms are affected with divers Bend- ings and irregular Motions.

SOMETIMES the Order of this Defcent of the Symptoms is inverted, and, instead of descending, they arise; the refpiratory Organs fubfiding, in fome meafure, while the Abdomen and Parts adjacent are fwell'd to an immense Degree. When the Fits arise to this severest Height, the whole nervose System is hugely convuls'd, and the Patient acquires a Strength greatly superior to the strongest Man, though, not præternæturally affifted, might eafily be lifted by an ordinary Person. Divers Parts of the Body, but especially the Trunk, heave and work as if the Will concurr'd to the Action. In fome, the Wind rushing through the Intestines so convulses the inner Coats, that, from a mechanical Modulation of their Fibres, there arises a Noise or Murmuring, not unlike articulate Sounds, which has greatly impos'd upon ignorant, superstitious People, as if the Patient was possess'd, or under the Influence of an Evil Tongue; though

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PART II. all these surprizing Symptoms are accountable from Causes merely natural, as shall more clearly appear in the following Chapters.

AND I am perfuaded, that these Agitations, Vagaries, and pretended Inspirations of our late, modern, French Prophets, that so surprizingly affected the vulgar Spectators, were nothing more than Convulsions in the Men, and a lesser Degree of Hysterick Fits in their Women; for, to my certain Knowledge, a young Woman, by following these People had got fuch a Habit, that, by furmoning her Passions, she would fling herfelf into these Agitations at Pleasure; but though she could begin these Fits upon the least Warning, yet she could not ftop them when she pleas'd, but once begun, they would continue their Spafms and convulfive Motions for a certain Space of Time, 'till the mechanical Necessity ceas'd.

A most remarkable History of Hysterick Fits.

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THE following Relation is the Case of a young Lady I visited, attended with the most surprizing Symptoms of

Vapours

Vapours and Hysterick Fits I ever be- CHAP. 5. held in my Life. She was of a thin, pale Complexion, of a tall, slender Habit; and subject to a sharp, acute Pain of her Head, that was greatly exasperated at certain Seasons.

UPON the Access of the Fit, she fell violently on the Floor, and all her Body was agitated, shaken, and distorted in a most cruel Manner. Her Head was violently convuls'd divers Ways, her Eyes were contracted inwardly in their Orbits, with their Whites turn'd up and fix'd. To these Symptoms follow'd a light, murmuring Noise in the Bowels, which was fucceeded with a great Distention of the left Hypochonder, that terminated in a round Globe, fwell'd prodigiously above the Surface of her Belly; presently after she smil'd, and mimick'd a laughing Countenance, then cry'd, figh'd, and groan'd, after which she lay still. In about five Minutes Time, the Convulfions return'd in the most furious Manner; upon which, to my great Surprize, she was fuddenly flung off the Bed, with a prodigious Impulse; the whole

from a Spring, her Abdomen gave the greatest Signs of the impulsive Motion; immediately after this I observed the round Globe that formed the Swelling on the left Hypochonder vanished, though the Convulsions continued, and notwithstanding there were half a Dozen in the Room, yet much ado had they all to lift her on the Bed again, so strong was the Fit, above all the natural Powers of her Body.

Feet were agitated with divers Bendings, Motions, and Contractions; all the immoveable Muscles of her Body stretch'd as on a Rack, and the Spume or Foam that work'd from her Mouth was mix'd with Streaks of Blood. At length the Rigour of the Fits abated, or at least seem'd to abate, and she lay still, which was follow'd with an unusual murmuring Noise from within, that greatly surprized the By-standers. Some superstitious People, there present, endeavour'd to impose a Sense on these inarticulate Sounds; tho' I am sure her Lips ne-

ver moved: The Noise was not unlike Chap. 5. the Crying of an Infant, which was frequent and sudden.

Thus she lay for near three Hours, and then the muscular Fibrillæ began to relax, and she, by Degrees, to come to herfelf; but notwithstanding it was high Noon-Day, and not above twelve of the Clock, yet could fhe not discover the least Glimmerings of Light for above five Hours, the Severity of her Fits had fo weaken'd the Fibres of the Optick Nerves. She complain'd of a great Dizziness of her Head, a Numbness and Stiffness in all her Limbs, and her Bones were fo exceedingly fore, that she fcarce would believe, but that fomebody had been drubbing her: As foon as she was perfectly restor'd to the Use of her Senses, she declar'd that she could not remember the least Transaction, that happen'd during all this Uproar and Diforder.

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CHAP. VI.

Of the Symptoms of the Hypochon-DRIACK MELANCHOLY.

HE Hypochondriack Melancholy is only the last or highest Degree of the Spleen or Vapours, wherein all the Symptoms are heighten'd to a furprizing Degree. Under these Circumstances nothing but Horror reigns; the Ideas are dark, unfteady, and confus'd: Sometimes the Exercise of Reafon it felf is interrupted, and the Mind harrass'd with terrible Perturbations, Anxieties, and fad Despair. When this Disorder has been of any considerable flanding, the unhappy Patient begins to despair of a Cure, and revolves upon all the most gloomy Ideas, that he can posfibly form to himfelf, in the whole Circle

of Nature, which almost reduce him to Chap. 6. a State of Desperation.

AND as the Hypochondriack Melancholy is only the Progress of the Spleen and Vapours, fo melancholy Madness is only the Hyp. improv'd upon the Constitution from Length of Time, and a Continuance of the Disease; which is the Reafon why, in the next Chapter, where I professedly treat of this Subject, I only handle it as the Progress of the Symptoms, when they degenerate into melancholy Madness. So easie, indeed, is the Transition from the highest Degree of the Hyp. into the lowest of a fix'd, settled, melancholy Madness, that it's impossible to mark out the Boundaries, or discover any Pathogonomicks, that may discriminate a Difference.

INDEED I may not deny, but that the Hypochondria, vulgarly call'd the Hyp. strictly taken, according to the ancient Acceptation of that Word, is a Term, that only implies a Tumult or Diforder in the lower Region of the Bowels, from a Faultiness in the Organ of the

2 2 Spleen;

PART II. Spleen; the Ancients erroneously suppo-Ing, that this Organ was the primary Seat or Receptacle of the melancholy Humour, which, from the frequent Rifts of Wind, that affected People troubled with this Disease, they call'd the Flatus Hypochondriacus. But as it is impossible, that those lower Regions can suffer in any confiderable Degree, without, at the fame Time, disconcerting the noble Springs of the Animal Powers above; that is, the Brain and its Dependants, the Intellectual Faculties; fo I shall comprehend, under the foregoing Term, all its feveral Degrees, that can possibly affect the Constitution under the most defpairing Symptoms.

Of the Symptoms of Hy-Melancholy.

In the former Cases of the Spleen, pochondriack Vapours, and Hysterick Fits, the Symptoms feem'd more particularly to oppress the Bodily Organs; but now they appear more immediately to affect the Mind, and disconcert the Powers of the Intellectual Faculties: Not that the Body in reality is absolutely free, but only that the Mind, under these horrible Ideas, that thus strongly crowd upon the Fancy,

is less attentive to the Sufferings or Af- CHAP, 6. fections of the Body, being wholly taken up with revolving upon whatever can crowd the Mind with the most dark, gloomy, and dismal Apprehensions.

In the Night Time they are affrighten'd with many abfurd, fearful, and phantaffick Visions, that crowd about their Eyes, and diffurb their Slumbers: And, although they often are of a lean, fwarthy, hirfute, unchearful Countenance, by Reason of the Fears, Griefs, and Anxieties they are agitated with; yet some of them have good Memories, happy Wits, and excellent Apprehensions, during their lucid Intervals. Their Pulse varies much, according to the Nature of the Cause that excites the Disease; sometimes it is flow, fometimes quick, but always unequal. Their Stools are generally hard, black, and but little in Quantity; their Urine, for the most part, pale, crude, watry, but varies its Colour and Confiftence, according to the Constitution of the Patient, the Degrees of the Disease, and the Advances it has made.

PART II.

ANTIQUITY it felf, with all its Fruitfulness of Invention, scarce ever conceiv'd fo many, odd, ridiculous and abfurd Changes, as Hypochondriack Perfons will fancy of themselves, when once the Imagination is thoroughly vitiated, from an irregular Motion of the Fibres of the Brain: Some perswade themselves that their Bodies are transform'd into Swans, Geefe, Glaffes, Tea Cups, &c. and act with the very fame Regard to their Friends and Acquaintance, as if their Bodies had actually fuffer'd fuch a Metamorphofis. Some again certainly know, that they are a Dying, yea, ready to expire, and demand immediately to be laid out; others turn Prophets, and foretel the Destruction of Houses, Families, Towns, Cities and Kingdoms, or their own Death, and, that they shall certainly expire at fuch a Period of Life. In the mean time, what Emotions of Mind and Body enfue upon these Disorders, is incredible to speak; the former is often crowded with the darkest Scenes of Horror and Diftrust, with fad and melancholy Reflections on their own difmal and gloomy

State; from which often they shut out CHAP. 6. all Hopes of Recovery, and fall into an incurable Despair; for, finding little Relief from the various Remedies they have taken, they reflect deeply on their prefent woeful Condition, and exaggerate to themselves the miserable Effects of their Distemper, never, never to be cur'd; and thus, by frequent, and almost continual Reflections, those dark, gloomy Ideas fix fo deep an Impression on the Brain and Seat of the common Senforium, that the least Motion of the Nerves, ever after shall revive the Memory of these dark and despairing Thoughts.

In the mean time, what vehement Emotions, Tremblings, Palpitations, and irregular Throbbings, the Heart often is affected with, when the Disease arises to this Heighth, they only can tell that endure the Conflicts.

THE Stomach often extremely fuffers under this Disease, which frequently discharges, either by Vomitings, Rifts, or windy Belchings, acid, sharp Juices, that

inflame

PART II. inflame the Mouth, Jaws, and Tongue, and fet the Teeth on edge. The Patient frequently perceives his Breathing fhort, with fudden Stops and Jerks, as if his Breaft was bound down with a Cord, that greatly oppress him with Anxietude and the Fear of Suffocation.

In Conversation they generally are touchy, suspicious, and think every thing said or done, is said or done to their Prejudice; if two whisper, they certainly are contriving some Plot against their Interest; and every one that pays them a Visit is their Enemy, and only some By-Ends prevail'd on them to come and see them.

In the Progress of these Symptoms sometimes they are affected with an obstinate, sullen Silence, and resuse to answer any Questions, that are ask'd them:
Under these Circumstances the Spirits
are depress'd, and chain'd down to the
most dismal way of Thinking, they possibly can arrive at, without starting into
the most gloomy Scene of melancholy
Madness. They willingly revolve in

their Minds, all the most despairing Ideas, Chap. 6. that can crowd upon the Fancy; and if, by Chance, a sudden Gleam of Light break in upon the Soul, and give them a placid Interval of chearful Ideas, yet this Dawn of Sunshine, this pleasant Period, immediately vanishes, and the Soul is again overcast with a Cloud of Passions that overwhelm his Thoughts, and almost reduce him to a State of Desperation.

Thus far I have confider'd the Symptoms and Changes that conflitute the Spleen, Vapours, and Hypochondriack Melancholy, in both Men and Women; I shall now go on to discover, as well as I am able, the Consequences of these Disorders, and the fatal Stages they seldom cease to make upon any sudden, surprising, or unexpected Turn of Affairs, if not timely prevented by proper Applications.

PART II.

CHAP. VII.

Of the SYMPTOMS of SPLEEN, VAPOURS, and HYPOCHONDRIACK MELANCHOLY, when they degenerate into the natural, or religious melancholy Madness.

The Melancholy Madness

A M now come into the most gloomy a most gloomy & Scene of Nature, that Mankind can possibly encounter, where nothing but Horror reigns; where the noble Endowments of the reasonable Soul are often disconcerted to a surprizing Degree, and this lordly Creature Man almost de-. bas'd below the brutal Species of the animated Creation.

Definition.

MELANCHOLY Madness is a Complication of continual and unintermitting Horrors, that spares neither Body nor Mind. When this Affection is far a'-

vanc'd

vanc'd into the Habit, the Patient appears CHAP. 7. to all that fee him a moving Piece of Ruin, and wears his Soul in his Countenance, which is mark'd with all the Characters of Woe, Gloom, and Desperation. He is loft to himfelf, his Friends, his Country, and Relations; he is dark and benighted in the full Glare of Day, and trembles to behold the Face of the Sun, from an Apprehension, that it insults his Mifery. He flies to his Couch, in hopes to bury his Cares, and lull his Soul into fweet Slumbers: His Couch! miserable as he is, denies to him that fweet Ease and pleasing Consolation, and perplexes his Mind with Phantoms of Furies just ready to devour him.

When the Symptoms arise to this of the Sympfurprizing Height, which they seldom toms of natufurprizing Height, which they seldom toms of natufail of, if not timely remedied, the Body Madness.

then scarce feels the severest Usage you
can give it; the Reason of which is,
that all, or most of the Nerves that afford the natural Sensations to the several
Organs of the Parts are let down beneath their natural Standard, not unlike,
tho' not so much, as in palsical Affections.

However,

PART II. However, the immediate Intercourse between the Mind and Body, is by some Means or other greatly disconcerted; and this is the Reason, why those finest Senfations that arise from the several Appetites of Hunger, Thirst, and Venery, are diminish'd, to a Degree scarce able to create an Attention to those Cravings of Nature; and hence it happens, that they are able to endure Hunger, Thirst, and Watchings, to a Time almost incredible, to Persons not acquainted with such Cases; all which several Phænomena shall be accounted for, when we come to treat of the Causes of those Disorders.

Of the Symptoms of Religious Melancholy.

Sometimes this natural melancholy Madness is improv'd upon the Constitution, by a Set of religious Objects, and then it comes under the Denomination of religious Melancholy; in this Case, the Patient is either too much oppress'd with Fear, or over-prefuming; the latter most properly is call'd Enthusiasm; for these Objects of Fear or Presumption are vary'd, exalted, or deprefs'd, according to the different Constitution or Temperature they reside in. If the Habit be naturally

naturally of a phlegmatick Make or CHAP. 7. Disposition, then all the Ideas will be despairing. Hence arise their Dissidence, Scruples, and Fears, concerning the Sincerity of their Faith and Repentance, as also the Certainty of their Election or Reprobation; which several Points, from the preaching of some hot-headed Gospel-Ministers, are so strongly six'd on the Minds of silly, weak, unhappy People, as to work them into a State of Despondency.

THEN their Sins fly glaringly in their Faces, and are so infinitely great, that no Satisfaction can compensate; then they think of nothing but the searful Wrath of God just ready to be pour'd out upon them; that the Sentence of Condemnation is already pass'd, and that they certainly shall be damn'd to all Eternity.

Thus, these unhappy Wretches go on to encrease their Woes, before bad enough, now made worse from the Objects of Despair. But thus much I must observe in Desence of Religion, that these Disorders are no way the Essects

PART II. of religious Duties, nor is Religion any way justly chargeable with their Confequences; they are owing to the Temperature of the Body, which, whenever it starts from its natural Standard, obliges the Mind to revolve upon those Ideas, that were most familiar to it while it was in Health. And if the Patient was intent upon religious Duties in Health, he will certainly revolve most upon those under this Difeafe; and as Fear, Sadnefs, and Sorrow, are the Pathogonomicks of phlegmatick Melancholy, he will naturally take religious Objects by the left Hand, and multiply the Duties of Religion above the Powers of human Nature to perform, and then quarrel with himfelf, for not doing what was above his Power to do, and what neither God nor his Laws exacted at his Hands.

Thus, this unhappy Wretch goes on from bad to worse, always sighing, groaning, and desponding of Mercy, from a God infinitely merciful: In vain shall you tell him of the Satisfaction of his Saviour for his Sins; his Sins are so foul

and enormous, that they are above all CHAP. 7. Satisfaction: No Blood can wash out the Stains of his Sins, nor blot out the black Catalogue of his Transgressions.

AND this is the Circle of Ideas, that the most religious Persons will naturally run through, while the Symptoms of natural Melancholy continue to oppress them; for Fear and Sadness, being relative Terms, have no Foundation or Meaning, when they are not referr'd to some Objects: It therefore naturally sollows, that whoever fears, must have some Grounds for those Fears, either real or imaginary; if they be real Fears, then they must arise from some Cause that struck the Object of Fear upon the Mind.

But if this be the Fate of religious Of Atheistical Madness. Persons under this Disease, let us change the Scene, and take a View of the Atheistor Libertine under the same Affliction. What Hope, what Resuge can he expect from a gracious God, whose Providence he has so often blasphem'd, ridicul'd and deny'd? Under the Symptoms of religi-

PART II. ous Melancholy, the Mind was in Despair through Doubt; but here, even that Doubt would be the highest Pleasure: He now perceives God's heavy Wrath ready to be executed upon him, and thinks he is already in Hell; himself is Hell, and fuffers all the Pains of the Damn'd; he howls, he roars, and, in the Height of his outrageous Frenzy, blasphemes God and his Religion: Where can he rest his hopeless Hope! where seek for Mercy, when Conscience, Horror, Despair, and all the difmal Scenes of Woe, that can afflict the most obdurate Heart, fly glaringly in his Face, and sting his tortur'd Soul, with Pain and Grief unfufferable to human Nature! Hence spring those frequent Suicides, to which these harden'd Miscreants have Recourse, to rid them of a Life most loathed, wretched, and miserable to endure. So that no Scene

of Horror can be more dreadful, than

to view an Atheist on his Bed of Sick-

ness, just reviving to a Sense of his

being forfaken of God, and all Hopes of

his Mercy.

CHAP. 8.

MOME CHEST MORE

CHAP. VIII.

Of the Symptoms of Spleen, Vapours, and Hypochondriack Melancholy, when they degenerate into Lunacy and Enthusiastick Madness.

THE Mania, or what we call Lunacy or the raging Madness, is only the foregoing Melancholy improv'd in a hot, biliose, sanguine Constitution; whereupon all the Impulses are strongly struck on the Seat of the common Sensorium, and the rational Soul divested of all its noble and distinguishing Endowments.

This Madness presents the Reader with a most dreadful Scene of Horror and Distraction; the Patient appears with a fierce, grim, and rough Aspect, his Reason is disturbed, his Judgment confused,

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PART II. fus'd, and the Exercise of his Intellectuals is lost and bewilder'd in a bottomless Gulph of most absurd Cogitations.

Of the Degrees of Madness,

SOMETIMES the Fits of Lunacy arise beyond all the Bounds of Nature, and the Patients acquire a preter-natural Strength, greatly above the Power of the strongest Man to oppose: They will break the strongest Bars of Iron with a fingle Impulse, throw off their Bonds, Chains, and Shackles, to the Wonder and Surprize of all that fee them; nor are they scarce ever tired, tho' they exercife their Bodies whole Days and Nights, and are almost continually without Sleep. They will endure the feverest Usage, with a fleady and equal Mind; nor shall you perceive them at all scarce affected with the Extremes of Cold, Fasting, and Stripes, that are enough to fink the Spirits of the most intrepid Mortals.

OTHERS, again, acquire a Swiftness of Foot, greatly superior to the swiftest Man. I myself knew a young Woman, that in the Height of her Lunacy, broke from her Keepers, and run so fast, for

Hypochondriack Melancholy!

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near two Miles, that neither Man nor Horse Chap. 8. could overtake her, got into a River, and was drowned, before any could come to her Relies.

When once the Difease is suffer'd to arise to this Height, they are bold, impudent, and of a most revengeful Disposition; apt to quarrel, and think, and speak, and dream, if perchance they slumber or sleep, of nothing but Battles, Combats, and their Manhood; they are furious and impatient in Discourse; stiff, irrefragable, and prodigious in their Actions; and, if provok'd, most violent, outrageous, and ready to kill themselves, and all others, that come in their Way.

THEY sleep but little; their Urine is of a fiery, slameous Colour, and but little in Quantity; their Pulse is quick, low, and very unequal, which certainly indicates, that the Fever is lodg'd upon the Nerves and Spirits, contrary to the Antients, that averr'd, that this Disease might be without a Fever; their Stools are white, hard, and but little in Quan-

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tity;

Of the Spleen, Vapours, and

PART II. tity; their Respiration varies, but generally is flow, and scarce perceiveable.

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PERSONS, of the greatest natural Parts, of the finest Genius's, and most elevated Imaginations, are often observ'd, in their Flights, to start into Madness; for being naturally of warm, biliofe Constitutions, it necessarily follows, that (while the aspiring Soul is purfuing some lofty Thought, foaring to an uncommon Height, and teeming with the grand Discovery) the Impulses prove too strong for the feeble Brain to support, the Intenseness of Thought disconcerts the slender Fibres, and the whole Magazine of most beautiful Ideas are shatter'd, and jumbled into the greatest and most irregular Confusion, by the Force of the labouring Imagination.

WHEN once these finest Fibres of the Brain, that immediately support the regular Exercise of our Thoughts, have fuffer'd fuch a fatal Shock; no Operation of the Mind, that is regular, sedate, and uniform, can ever after be expected; but all his Actions will be express'd by fudden Fits and Catches; and shew themfelves in all the Diversity of Characters, Chap 8. according to the prevailing Passions that ftruck the Impulse. Thus the gay and merry, the fond and loving, the angry, revengeful, or Scholastick Characters, succeed each other, by sudden Starts and Sallies, according to the natural Passion he was subject to, before the Invasion of the Disease.

If the Patient was proud, ambitious, haughty, or imperious, in his natural Temper, then, upon the Access of the Lunacy, he will imagine himself metamorphos'd into a King, a Prince, or Viceroy; and demand suitable Attendance to the regal Power, princely Dignity, or noble Character, he ought to bear in the World, in case he was the very Person he takes himself to be: Those of a sierce, savage, and cruel Nature, imagine themselves transform'd into Wolves, Bears, or Tigers, and fancy they retain all the Ferocity of those savage Animals.

Sometimes this raging Lunacy is of Enthusiimprov'd upon the Habit of warm, bili-astick Lunacy 246

Objects, and then it arises to Enthusiasm; a Species of Madness quite different from religious Melancholy, and which produces different Effects: For whereas the Patient under the Symptoms of religious Melancholy, was greatly oppress'd with Fear, Sadness, and Despair; these, on the contrary, from an over-weening Opinion of their own Sanctity or Holiness, are elevated to the highest Degree of Familiarity with their Maker: They are his Viceroys, chosen Saints and Servants, fent on especial Errands, to reclaim the unbelieving World.

When the Brain is once well warm'd, then every groundless Opinion, or silly Fancy, that strongly settles itself on their Minds, is an Illumination from the Spirit of God, and of divine Authority; and then every Impulse that drives them on to any odd and ridiculous Action, is immediately a divine Call from Heaven; it's a Commission from Above, and must be obey'd. If you tell them of Mistakes, Errors, the Delusions of their Senses, or Suggestions of Satan, they will answer

you, that they see the Light infus'd, CHAP. 8. hear the Call, feel the Impulse, and cannot be mistaken; it's clear and visible to them, as the Sun at Noon-Day, and confequently needs no other Proof than its own Evidence: They feel the Hand of God moving them within, and the Impulses of his Holy Spirit directing them in all their Enthusiastick Thoughts, Words, and Actions.

Of this kind of Lunacy were the Ravings of Naylor, Fox, and Muckleston, who certainly deferv'd no Punishment for what they did or faid; feeing, that what they did or faid, was nothing but the Effect of mere Madness, and arose from the stronger Impulses of a warm Brain.

FROM this Way of Reasoning we may gather, that all these fantastick Agitations of our modern French Prophets, and other late Visionaries, were nothing else but strong convulsive Fits, which those Wretches had habituated their Bodies to, from the Strength of PART II. their Passions, and a strong Persuasion, that they were illuminated from Above.

Surprizing it is to consider, how far this Enthusiastick Zeal or Lunacy has carry'd many Persons, in all other Respects, sage, learned, discreet, and wise, when once it gets hold of their Tempers; and how difficult, or rather impossible it is, to persuade them out of their Vagaries, and that all is but an empty Phantom, mere Delusion, or the Result of a warm Brain.

Now, in Answer to these superstitious Fooleries, give me leave to observe,
that the strong Persuasion of what a
Man seels, sees, or hears, can be no
Evidence to another of his having a
divine Mission, nor ought to be so to
himself. Revelations communicated to
holy Men, under the Old Testament Dispensation, always had some special, outward, visible Assurances, to second their
internal Motions; they were not lest to
their private Persuasions alone, that it
was an Impulse of divine Authority;
but had evident Circumstances, visibly
attesting

attesting the Power of those Revela-CHAP. 8.

Moses not only faw the Bush burn without consuming, but heard a Voice out of it; and yet thought not this Evidence sufficient to legitimate his Mission to *Pharaoh*, till God was pleas'd by a second Miracle to turn his Rod into a Serpent, and assur'd him of the like Power before *Pharaoh*.

GIDEON refus'd, at an Angel's Request, to go and deliver Israel out of the Hands of the Midianites, till his Mission was attested by a Miracle from God; and our blessed Saviour himself did not upbraid the Jews with Blindness and Unbelief, till they resisted all the Evidences of those surprizing Miracles, he wrought amongst them for their Conviction.

THESE, and several other Instances, that might be given, are sufficient, I hope, to convince any reasonable Man, that the holy Prophets of Old, did not think an inward Persuasion of their own Minds a sufficient Evidence, that their

Of the Spleen, Vapours, and

PART II. their Commission was from God, or that they had Authority to alter the Rule of Faith, once given to the World for the Conduct of Life; unless they had visible Circumstances also super-added to those internal Illuminations to support their Miffion.

These ridiculous Motions, of the Holy Spirit.

IF these fantastick Agitations, and no Indications wicked Enthusiastick Vagaries, be a Mark of Religion, of the true Religion, it must be of such a Religion as the Devil may act a Part in; for most of the Demoniacks that our Saviour is related to have disposses'd, were much in the same Manner affected, as our modern French Prophets are, during their pretended Fits of Inspiration; and, excepting the Sybilline Priestesses of old, who gave their Responses in all the Rage and Fury of Madness, I am not able to inform myself, that any Pretences were ever made to the Holy Spirit, from fuch odd, ridiculous, and wicked Enthusiastick Motions.

> THE Apostles and their Successors, in the earliest Ages of Christianity, appeal'd to the common Sense of Mankind,

kind, for the Reasonableness of the Re-CHAP. 8. velation, they had in Commission from God, to promulge to Mankind; and, by their most excellent Apologies, clearly demonstrated, that the Christian System, was infinitely preferable to the Religion of the Heathens, both in Regard to its moral Nature, and those exceeding great Rewards it promises to all those that lead their Lives agreeable to its divine Precepts; so that, in a small Space of Time, the Gospel of Christ was preach'd and propagated in all the Kingdoms, Nations, and Provinces, of the known World, in Opposition to the most violent Persecutions of its Heathen Adversaries.



PART II.

WAR THE THE THE THE THE THE

CHAP. IX.

Of the most general Causes of the Spleen, Vapours, and Hypochondriack Melancholy.

feveral Symptoms, that constitute the Spleen, Vapours, and Hypochondriack Melancholy, as well during the Intermissions of those Diseases, as when they are attended with Fits: I shall now proceed to unriddle their most general Causes, and shall consider them in that Order of Nature, as they arise upon the Constitution; and the different Forces they impress upon the several Organs of the Body, in order to produce the different Species of this Disease.

CHAP. 9.

But first I must beg Leave to pre-No Cause mife fomething concerning Causes in ge-possible in Naneral, as well when they are regular as an Effect, nor irregular, without any Regard to those Effect with-Affections, by Reason, that in the Progress of this Discourse, we shall be oblig'd to take Notice of the Causes of opposite Symptoms: not, to speak properly, that there can be an irregular Cause in Nature; for when Causes act, and do not produce those visible Effects, they are accustom'd to produce, we are apt to fay, those are the irregular Actings of Nature, or partial Causes; but in very deed the Caufe was answerable to the Effect; and the Effect was the Refult of the Cause acting fully up to the Degrees of all the Impulse it was

When we perceive some supposed Causes, not producing their natural Estects, or what we call their natural Estects; this must happen because the Causes are desective, and therefore not properly Causes adequate to those Essects, expected from them; but they

capable of.

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PART II. are Causes adequate to the Effects they produce, which is as much as they poffibly can produce, in the same given Circumstances.

Nature always

their Effects.

To handle this Point more clearly, upon which so much depends, we are to confider, that, in monstrous Productions, the Causes are never partial in Relation to the The Causes in Effects; for the same Impulse of the answerable to Matter and Motion, in the same given Circumstances, would never produce any Thing but a Monster: The Effects, in those Cases, are always answerable to their Causes; and the Reason why it was not a full-grown Child, compleatly form'd, is because the Direction and Impulse of the Causes forming this curious Machine, was infufficient for perfecting the several Lineaments of a human Fœtus; but then they were effecting of as much as was in their Power to effect, and that was a Monster or mishapen Animal: And monstrous Productions of all Kinds have their Degrees of Perfection accordingly, as they are more or less nearly resembling of any Animals: So that the Causes may be faid to be partial in Relation to the Species,

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Species, but impartial in respect to their CHAP. 9. genuine Effects.

IRREGULAR Symptoms, therefore, of Irregular the Spleen and Vapours, proceed from as Symptoms of Diseases have certain, natural Causes, as those that are constant steady Causes. most regular; but we call them irregular, or confus'd Symptoms, because we cannot so clearly conceive an Idea of those Causes, that produce them, as when they are more regular.

Now, that I may proceed with the greater Clearness, I shall beg leave first, to explain the Manner how the Powers of the Brain and Nerves are affected, in producing the Causes of those Diseases; after that, how those Affections of the Brain and Nerves, produce those huge Symptoms of Strength and Fierceness in the Hysterick Fits and Madness, ut surpra Naturam res videatur; in which I shall consider the Matter necessary to excite those Phænomena, and the extrinsical or remote Causes necessary to put that Matter in Motion, which will be the clearest Manner in explaining the Causes

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PART II. of the Spleen, Vapours, and Hypochondriack Melancholy.

WE have clearly discover'd, in the first Part of this Treatise, that the Senfations and Perceptions of the Mind, depend on the due Modulation of the Nerves; that this due Modulation consists in the Machinulæ of the foregoing Fibres, being set at equi-distant Spaces from each other, and within their proper Spheres of Contact; that, upon every Vibration of an Object, they might be able to excite a Sensation in the Organ; and that every Sensation should be able to produce a Perception in the Mind.

THAT, in all Cases, where those Machinulæ of the Brain and Nerves, either recede too far from, or are brought too near each other, there will be either a Contraction or Relaxation of the Fibres, which will be attended with the Sensation of Pain in the Fibre, and the Perception of Uneasiness in the Mind.

THAT the Uneafiness and Pain, will be in Proportion to the Tension of the Fibres

Fibres, which will increase to a certain Chap. 9. Point of Extremity, beyond which they will be void of all Pain, and the Mind void of all Perception, and consequently there will be nothing acted upon the Organs above this State of Contraction.

THIS appears clearly to be the Case, both in some kinds of convulsive Motions, and palfical Affections, where all Senfation between our Thoughts and animal Fibres are entirely disconcerted, or cut off; for the Mind having its proper Ubi, whenever the Directions of the Machinulæ, that compose the sensitive Fibres, are levell'd in their Motions, either above or beneath that proper Point, where the Mind refides, there can be no Sensation, Perception, or Reception of Ideas. The Truth of this appears pretty clear, in the Sensations of Vision, Hearing, and Feeling, which are all interrupted, in Cafe the Direction of the Fibres in their Motions, point either above or beneath this proper Ubi, which I take to be the Centre of the Brain, where all the Fibres of the Organs, that ferve the feveral Senses, point in their Origination.

To

PART II.

To apply this Reasoning to the Spleen, Vapours, and Hypochondriack Melancholy: As all Sensation depends on the proper Structure of the Brain and Nerves; so these Sensations will be confiderably increas'd or abated, in Proportion as the Motions of the foregoing Powers are more or less intended or remitted. And as the Mind only fees, hears, imagines, and understands, by the Assistance of these curious Instruments, and the Organs they compose; so will it necessarily follow, that whenever, from any Causes, these happen to be vitiated, or recede from their due Modulation, the Senfations and Intellectual Faculties must fuffer in the Change.

The Disease arises from a too great Re-independently of their Fits, most cerlaxation of the tainly arise from a too great Dilatation nervose Machinulæ of the of the nervose Machinulæ, that combrain and Nerves.

pose the contracting Powers of the Brain and Nerves; that is, when their Machinulæ are set at too great a Distance from each other, whereby the Fibres of every Muscle are let down beneath their natural

natural Standard; which is the Reason CHAP. 9. why many People complain of fuch a Weariness in their Limbs, and Unaptness to Motion; this proceeds, not so much from any Unwillingness of the Mind, as Inability of the Body to move; for it is the Condition of every one in Health, that the contracting Powers of the nervose, as well as arterial Solids, should be equal to their distracting Powers; that is, in Proportion as the Machinulæ of the Solids, in every Systole for propelling the Motion of the animal Fluids, are contracted; just so far should they recede from each other, when the Impulse or Action is over.

Now in all Cases of the Spleen, Vaspours, and Hypochondriack Melancholy, especially when these Affections have got any fast Footing in the Constitution, the Fibres of the Muscles, and other Vessels, are so relax'd, that they cannot assist the Mind in voluntary Motion, nor scarce the Vessels in propagating the natural Motion of the Fluids; upon which they attract each other, and form a thick, yiscid,

PART II. viscid, melancholy Blood, unfit for the Motions and Secretions of the Animal OEconomy. Hence arise Obstructions in the Nerves, that purse up their Fibres, fhorten their Contractions, and confequently excite a Convulsion in the Organ, or Part, where the Obstructions happen.

To make this Point a little more

clear, I shall beg Leave to observe, that

whofoever carefully attends to the Na-

tion to the Essence of these Diseases;

ture of the Spleen, Vapours, and Hypochondriack Melancholy, and the Fits or Paroxysms that frequently happen, at certain Intervals, will eafily difcover palfical, partly something of a mix'd Nature, in Rela-

The Symptoms partly convulfive.

> that is, he will perceive Symptoms partly palfical, partly convulfive. The Causes of the former arise from a Relaxation of the Nervose Fibres disseminated in the Organ, Bowel, or Part, where the Symptoms are feated, in the fame Manner, as the Caufes of chronick Difeases arise from a Relaxation of the arterial and muscular Fibres of the several Organs; whereupon these several Parts

Parts are incapable of making the Dif- Chap. 9. charges necessary to preserve the Body in Health.

Now the Fits or Paroxysms in chro-How the Fits nick Diseases, answer exactly to these convulfive Motions, we frequently obferve in the Fits or Paroxysms of Spleen and Vapours; both are exerted for the fame Reasons, and to obtain the fame Ends; both exert Motions fuperior to what the regular Constitution of the Body requires they should be; and these mechanical Motions, thus exerted, are necessarily inferr'd, both to fling off a Load of Matter oppressive to the Constitution, and to restore the disaffected Fibres to their regular Tone again; and these Intentions they certainly would effect in both these Cases, were it not, that the Fibres of the Nerves and Arteries remain under a State of too great Laxity, after the Violence of the Fits are over.

AND as the acute Paroxysms, in intermitting Fevers, Agues, Asthma's, &c. are the Efforts of Nature, to disburthen the Constitution of that Load of Matter, that

PART II. forms these different Diseases; so the histerick Paroxysms and these convulsive Tremors, that often attend splenetick Diseases, are exerted from the same Efforts of Nature to restore the Nerves to their due and regular Standard again: And as the Heart is the main Spring of Action in the Fits of chronick Diseases, so the Brain, with its frequent, irregular * Synifies its Con-stoles, greatly promotes these inordinate, spasmodick Motions, in the Fits of the histerick Disease.

* Systole of the Brain figtracting Power, whereby the animal Juices are forcibly driven into the Fibres of the Nerves.

Fits have a semblance to the Epilepsy.

It's true, we have no Pathogonomicks to distinguish convulsive Motions attend-The histericking the Epilepsy, from those that acvery near Re- company the Histerick Paroxysm; but whenever convulfive Motions affect the nervose System in Women, they are call'd Histerick Fits, in Men the Epilepsy, And, indeed, from the Community of Symptoms, after the best Observations I have been able to make, I cannot but be of Opinion, that the Epilepsy is the fame in Men, subject to the Spleen and Hypochondriack Melancholy, that Hifterick Fits are to Women labouring under the Vapours. And if it be objected, that

all

all Hypochondriack Men do not suffer CHAP. 9. from Fits of the Epilepsy; I grant it: but then this Objection will be of no Force, because neither do all vapourish Women suffer from Histerick Fits.

THESE Fits, neither in the one, nor the other, are inseparable; they require a great Degree of the Disease, as well as strong Causes, to put the Nerves upon this mechanical Necessity, in order to dislodge the Disease in such a surious Manner. Lesser Causes are often slung off by Yawning, Gaping, slight Twitchings of the Nerves, or Sneezings; as we observe in frequent Sinkings of the Spirits. That Sneezing is of Service in such Cases, to dislodge the Vapours, is evident, from the Relief it immediately gives in disengaging the Spirits from their Pressure.

INDEED some Writers have endeavour'd to account for the Causes of all these Disorders from Indigestions, and acid sharp Humours, the Consequence of these Indigestions. But granting, to these Gentlemen, all they contend for, yet even 264

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tizens.

PART II. then this Question recurs; from whence do these Indigestions and sharp Humours arise? From whence should they arise, but from a Relaxation of the muscular Fibres in the Stomach, which are ordain'd by Nature for the Affiftance of this important Office of Digestion. And may we not, with equal Reason; go on to enquire, from whence that Impairation of the muscular Fibres of the Stomach arises? From whence, I pray, can it arise, but from our too great Indulgence in Eating and Drinking, and a too lazy, indolent Disposition of Life consequent thereupon.

THE Reason, why Country Gentlemen, who eat and drink plentifully, are not fo much harrafs'd with Spleen and Vapours, as most of our Citizens are, is, A Reafon why Country Gen-because they generally labour more in tlemen are not the Exercises of Hunting, Riding and rass'd with the Walking, which fling off those Overcharges that must have over-born the Body with a Disease, had not the Purfuit of those wholesome Measures reliev'd it; yet even so, many of these escape not free; for if they continue fre-

Hypochondriack Melancholy.

quently to over-charge the Blood with CHAP. 9. unfriendly Juices, or those that may prove fo, in Respect of their Quantity, they fail not to over-power the strongest Constitution, and generally prove fatal at the last. So that the Observation, that Solomon, the wifest of Men, was pleas'd to make concerning the fatal Effects of Wenching, may, not unfitly, be apply'd to Excess of Eating and Drinking: That they have cast down many strong Men; yea, many mighty Men have been slain by them.



is in the Spherite

PART II.

PAGEGETTO THE

CHAP. X.

Of the immediate Cause of Spleen, Vapours, and Hypochondriack Melancholy.

In the former Chapter I treated of the Causes in general, without any Regard to the Causes of particular Symptoms: In this I shall go on to discover the immediate Cause of those Characters that constitute the different Degrees of the Spleen, Vapours, and Hypochondriack Melancholy thro' all their different Stages.

The Error of the Ancients. It was the Opinion of all the ancient Physicians, that these Disorders arose from a Faultiness in the Spleen; but upon examining the Causes, according to the genuine Laws of Nature, we shall discover,

discover, that the Spleen is no otherwise Chap. 10. concern'd in producing this Disease, than as it suffers in the general Calamity of the Body; for the Stomach, Liver, and Intestines are as much to be esteem'd Causes, as the Spleen; because they are subject to be equally affected with the foregoing Organ.

THE immediate Cause of the Spleen therefore, is to be discover'd much in the same Manner, as the immediate Cause of the Scurvy, that is, from the general ill Habit of the Constitution; and, I must declare, that, from the best Observations I have been able to make, feveral fplenetick Symptoms feem fo complicated with those of the Scurvy, that it is impossible, accurately, to handle the Causes of the one, without, in some Measure, taking Notice of those of the other, because very few suffer under the Spleen, that are not, in some Degree, affected with a scorbutick Taint at the same Time.

Now as Wind supplies us with the greatest Number of Symptoms, in the Spleen,

PART II. Spleen, Vapours, and Hypochondriack Melancholy; and, as their first Scenes are generally acted in the Stomach, fo will it be highly proper, that I first consider their Production, before I proceed to examine the Causes, that affect the other Organs of the Viscera.

> NOTHING can be more certain than that the Organs of every Part are compos'd of Veins, Nerves, Arteries, and other Veffels fubservient to the Laws of the circulating Fluids, which convey a Liquor for the Nourishment of the several Parts; and as the Veins and Arteries afford Heat and Motion, so the Nerves give Strength and Sensation to every Part. To these Instruments united, the Stomach owes its contracting Force, the Intestines their peristaltick Motion, and the Lungs their contracting and dilating Powers.

Of the Caufe of windy Rifts, Belchings, and other Tumults in the Sto-

WHILE the muscular Fibres of the Stomach are capable of digefting the Aliments, and reducing them into a proper Chile, the same Powers will readily mach and In-discharge it into the Intestines or Guts,

to be receiv'd into the Lacteals, without CHAP. 10. the least Stop or Hindrance. But if, through a Languor or Weakness in the muscular Fibres, the new-made Chyle, or Meats scarce digested into Chyle, continue in the Stomach longer than is consistent with the Laws of Nature, then, by the Heat, Hurry, and Tumult of this Bowel, a great Quantity of Windwill be generated, which will make its Way, according to the greater or lesser Resistance it meets with, from the greater or lesser Force of the muscular Fibres, that compose the superior or inferior Orifice of the Stomach.

If the Resistance be least in the superior Orifice, then this Wind will force its Way upward by the Mouth, and discharge itself in windy Gulps, Rists, and Belchings; and the longer these Meats lie in the Stomach, after they begin to digest, the greater Quantity of Wind is sent off from this Organ; which sometimes is so hot, as almost to inslame the Gums, Jaws, and Parts adjacent; sometimes so acid and sharp withal, as almost to set the Teeth an Edge.

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Of the Cause of rumbling Pains in the Bowels.

Bur if this Wind is not able to difcharge itself by the upper Orifice of this Organ, it is then impell'd into the Intestines, always forcing its Way into those Parts, where it meets with least Resistance, according to the Nature of all Fluids equally press'd; and, in this Descent, by differently diffending the Coats of the Intestines, it furnishes out those windy, rumbling Pains, those croaking Noises, and quarrelling Conflicts, that most vapourish Women are subject to some time after a full Meal, or a little before the Invasion of the Hysterick Paroxysm; nor do these windy Diforders end here, for they often get into the Fibres of the Stomach, and create a Cardialgia, which is a most exquisite Pain in its superior Orifice or Pit, that abounds with most sensible Fibres; and not feldom are the fame Caufes concern'd in generating those severe nervose Hysterick Colicks, that often become habitual, where this Disease has been of any confiderable Standing.

Of the Cause of wandering Pains, Stitches, circulating Fluids, as appears in those and Rheumatisms.

Sometimes this Wind gets into the that

that have great, large, fwollen Veins, which CHAP. 10. being determin'd into the Membranes and Fibres of the Muscles, excite wandering Pains, Stitches, and Rheumatisms, in divers Organs, which move from Part to Part, from Bone to Bone, now in one Place, then in another, anon in the Back, then in the Belly, Shoulders, Neck, or Crown of the Head; from which, at one fudden Start, it shall descend into the Stomach or Limbs; not that this Halitus or fubtile Flatus indeed takes those fudden Flights, but only, to the Patient, seems so to do; for the Nerves being in divers Parts contracted, in those contracted Parts the Sense of Pain will be felt; but as foon as the Workings of the Fibres have dispers'd the Cause of Pain in one Part, the Fibres of other Parts will contract, it may be, a good Distance from the former; upon which, because the Patient perceives the Pain to cease in one Part, and arise in another, he is apt to think, that the same Pain makes a Transition from one Part to another; and thus we discover, with the greatest Certainty, that the Nerves, the Brain, the Arteries, the muscular Fibres,

PART II. and Membranes, are all more or less affected under the Spleen, Vapours, and Hypochondriack Melancholy.

How far the Spleen is conrating these Diforders.

AND as feveral Authors have endeacern'dingene-vour'd to derive the Cause of those Disorders, from a Faultiness of the Spleen, I shall consider the Indisposition of this Organ, and how far it is capable of producing these Affections. The Spleen is an Organ, whose Office or Cause of Action, Philosophers, as well as Physicians, in vain have attempted to discover; however, I shall only consider the Nature of this Organ under a healthful Temperature, and the Changes it fuffers in Splenetick Difeafes.

> UNDER a State of found Health, the Spleen appears of a dark, livid Colour, and all its Parenchyma, as well as Blood Vessels, are free from Obstructions, which, in the Hypochondriack Melancholy, are stuffed with a Load of dark, heavy Matter, that often swells it to an unusual Bigness; from whence, therefore, these Obstructions? from whence this Change of Colour, and that Charge of dark Matter,

Matter, that we often in Dissections, per-Chap. 10. ceive morbid Spleens to abound with, and which Hippocrates call'd the large Milt. These Disorders certainly arise from a Relaxation of the splenick Vessels, and the Corpuscles of the Fluids running into too close Contacts, as they circulate through that Organ. This is the Reason why a Numbness and heavy Pain generally affect the lest Side of Persons subject to this Disease; and why the Spleen is so incident to be affected with schirrose Swellings in the last Stages of the Hypochondriack Melancholy.

The Liver also often, under the Spleen The Liver of and Vapours, suffers the same Inconveten suffers unniencies; and detaches a vast Quantity of and why. Bile into the Intestines; this Charge, by an Inversion of the peristaltick Motion of the Guts, ascending into the Stomach, excites those severe, biliose Vomitings, that torment several histerick Women in such a cruel Manner. In others again, the biliose Ducts are stopp'd in the Course of the Disease, and then the histerick Paroxysim terminates in the Jaundice.

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THOSE Inequalities of Heat and Cold, fo evidently perceivable in divers Parts of the Body, arise from the Degrees of Impulse, that differ in some Parts from what they are in others, and which depend on the different Elasticity of the Fibres, that enter the Composition of these different Parts; and this is the Reason why the Brain is sometimes like an Oven with Heat, while all the extreme Parts are cold, lifeless, and little different from a Person expiring.

Of the Cause ing the Head and Brain.

THIS Heat of the Brain generalof Heat afflict-ly fucceeds that Chillness of the extreme Parts; all which Phænomena arise from a Languor of the Solids in the Surface of the Body, scarce able to maintain the Circulation, whereupon the perspirable Glands are obstructed, and the perspirable Matter flung upon the Heart, which obliges this Organ to redouble its Action, and drive the fuperfluous Humours up into the Brain; upon which its Fibres redouble their contracting Powers, and excite all that Conflict and Uptoar, that is acted on the Theatre of this important Organ; hence arise those Chap. 10. shooting Pains, that dart through the Head, those thumping Pulses that beat about the Temples, as if some live Thing was lodg'd within-side of the Skull.

AND whereas some People subject to the Spleen, sensibly perceive as great a Thumping in the Inside of the Head, as if a Hammer was struck on an Anvil; this arises from the Motions of the Fibres, that compose the finest Nerves, being made too brisk on the Seat of the common Sensorium, whereby the Mind is too exquisitely sensible of the Impulse.

Manner, we are to consider, that part of the nervose Fibres that immediately derive their Existence from the Brain, are obstructed; whereupon a larger Quantity of those animal Fluids are detach'd by the unobstructed Fibres, and which, necessarily coming with a greater Force, makes the Sensation so much the more exquisitely sensible: So that the Patient does not only perceive an Imagination of a Beating or Thumping in

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PART II. the Infide of his Skull, but an actual, disorderly Impulse is lodg'd in the Brain, from which arises this too acute Perception.

Of the Danger of neglecting these Disorders.

AND this is the Rife and Origine of these Disorders and Complaints, that knowing Men sometimes resolve into Whim and Fancy, and which often terminate in Palsies, Apoplexies, or other nervose Diseases, that frequently endanger the whole animal Fabrick: And, in short, I have known several Cases, where these Disorders have so long been treated as Whim and Fancy, and the Patient rally'd out of his well-grounded Fears; that, struck with a sudden Stroke of an Apoplexy, it was too late to prevent the fatal Consequences that ensu'd.

And seeing, that, under the gloomiest State of the Hypochondriack Melancholy, there frequently breaks in upon the Soul sudden Gleams of Light, and chearful Rays of Gladness; whereby the Patient, that, but just before, was depress'd to the lowest Ebb of Despair, is now elevated to the highest Pitch of

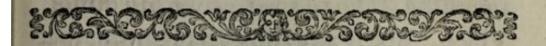
Joy and Delight; we are to consider, CHAP. 10. that these so sudden Changes, must have as fudden Caufes, which generally arise from the Air, or some other of the Nonnaturals, fuddenly altering the Springs of the nervofe Fibres, which as fuddenly alters their Motions, and forces these stagnant Spirits thro' those Pores of the Brain, that they were unable freely to pass before. The animal Spirits therefore finding a free Passage, strike the Seat of the common Senforium with a regular Impulse; upon which the Mind is glad to perceive itself difengag'd from that Thraldom it but just before was chain'd down to: And this heightens the Joy the more, as it is thus fuddenly made; for we perceive, even in a State of Health, that the greater is the Apprehension of Danger, the greater is the Satisfaction upon our Releasement; and fomething is always to be allow'd, for the Greatness of the Danger, and the Suddenness of the Recovery from that Embarrasment.

THESE Sinkings of the Spirits, or From whence Sadnesses, that oblige some vapourish these sudden T 3 Women arise.

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PART II. Women to burst into sudden Fits of Crying, without any evident Cause, arise from great Depressions of the Mind, that damp the Passions, retard the Motions of the Nerves, and make us lowspirited; and all Lownesses of the Spirits, and Sadnesses of the Mind, relax the Machinulæ of those Fibres, that compose the optick Nerves and Glandulæ Lacrymales depending on the Structure of these Nerves, whereby the Lymph, that composes the Matter of our Tears is protruded into our Eyes, which give us the livelieft Idea of Weeping; and when these lacrymal Glands are fo far relax'd, as to be incapable of contracting their Springs, there is a Fiftula Lacrymalis form'd near the great Canthus of the Eye.





CHAP. XI.

Of the Causes that disconcert the noble Organs of Seeing, Hearing, Tasting, and Feeling, under the Spleen, Vapours, and Hypochondriack Melancholy.

If U S far, having proceeded to account for the Causes of the various Phænomena that affect the Stomach, Bowels, and other Organs of the Body; I shall now proceed to examine into the Grounds of those Symptoms that disconcert the Objects, that enter by the Instruments of the principal Senses.

In optical Organs that are free from all Manner of Obstructions, the Rays of T 4 Light

the feveral Humours will be abated, and

larger Corpufcles of Matter float in these

PART II. Light have a Power to pierce the Pupilla, and form the Image of the Object upon the Retina; and this we call distinct Vision. But if any Disorders happen, that may affect the Elasticity of those Fibres, that compose the Membranes of this curious Organ, then the Secretions of

From whence Humours, than is confiftent with the the Air.

those Clouds, Standard of their natural Motions; dark Spots in upon which, as they pass before the Pupilla, they will darken these little Spaces, or Points of the Air, and intercept those Rays of Light, that lie in Lines parallel to the Axis of the Retina: So that these Corpufcles moving in the Eye, will appear in those intercepted Rays, as if real Flies or Motes were moving backwards or forwards in the Atmosphere; and where these Disorders are suffer'd to go on, they generally affect the Eyes with Suffusions, Films and Cataracts that intercept the Rays of Light and Colours, and, in time, totally destroy all the Objects of Vision; so that here is a real Cause in the Fibres, a real Matter in the Humours of the Eye, that excites a real Ap-Chap. 11. pearance or Phænomenon in the Air, which some People are pleas'd to call Whim and Fancy.

THE same Inconveniences we often dif- Of the Causes cover in the Organ ordain'd by Nature for of those tingthe Conveyance of Sounds, which is liable the Ear. to be affected under the Spleen, with divers disagreeable Noises very disturbing to the Patient: For, whereas, in order to render the Ear susceptible of the natural Impressions of Sound, it is necesfary, that the Machinulæ of the Fibres, that compose the auditory Nerve, be exactly modulated, and those Fibres finely display'd on the Drum of the Ear; now it often happens, under this Difease, that these Fibres are too much contracted, whereby this Organ is render'd fo fenfibly acute, as to be fusceptible of the smallest Impresfions from the least Wast of Air, that breathes in the Atmosphere; and this is the Reason why the Patient is most incommoded with these disagreeable Sounds in wet, hazy, or overcast Weather; when

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of moist Corpuscles, that may too much contract the Fibres of the Drum:
So that these Changes in the Atmosphere naturally infer those Changes in the Structure of the auditory Nerve, whereby it furnishes to the Mind these hissing, singing, tingling Sounds, that so sensibly affect the Ears of vapourish People; and which, if suffer'd to continue, not seldom infer an irrecoverable Deafness in this Organ.

Of the Causes that vitiate our Taste.

thus affected under these Disorders, but even the Taste and Feeling, are often vitiated to a surprizing Degree; for, as I have observed, in the sirst Part of this Work, that in order to produce the Sensation, or Perception of Tastes, or to give the Mind a new Idea, by the Organ of the Tongue, which it had not before, it has pleas'd the Author of our Nature to endue this Organ, with a sine, curious Membrane, consisting of numberless Papillæ, capable of affecting the Mind, with more or less agreeable Sensations,

fations, or what we call Taftes, accord-CHAP. II. ingly as they are struck with relishing Objects, more or less pleasing.

Now it often so happens, that these Relishes strongly affecting the Mind by their Impulses, as strongly incline it to defire their Return; which, being too often comply'd with, in time impair the Action of those finest Glands, on whose Motions those finest Relishes depend. And thus we account for these different Affections of the Taftes, that some People actually perceive under a Fit of the Vapours; that is, why the most relishing Meats shall appear to some tasteless, while others shall perceive the most infipid Meats as hot as Pepper.

THE Causes of these different Affections arise from the Machinulæ of the papillary Glands, in the former, being too much relax'd or palfical, which deftroys the natural Sensation of the Taste, while, in the latter Case, they are too much contracted; whereupon, the lightest Impression, from the most insipid Objects of Taste, affects them with as strong a Twang as if Pepper PART II. was apply'd to the Tongue. In both these Cases the Nerves of this Organ are receding from that natural Rectitude, whereby the Contact of the Object, or the natural Impression of the Idea of the Object, may freely pass up to the Understanding. And these Affections in this Organ generally arise from a vitious Diet, that impairs not only this particular Part, but the principal Organs of the animal Constitution, whereby all the noblest Sensations are abated, to a furprizing Degree.

Of the Causes that disturb our Sleep.

AND here I cannot but take Notice of the Reason why splenetick People seldom take any sound Sleep. This Wakefulness arises from the Fibres of the Brain, being continually in Motion, which keep the Faculties attentive to these Ideas, that successively enter by any of the Senses, for it is necessary, in order to procure sound Rest or Sleep, that the Nerves of the Brain abate their Motions; and this Abatement Nature has design'd, in order to recover their Elasticity; that is, to restore their Machinulæ to a nearer Contact with each other, whereby the

Mind may exercise its Faculties with CHAP. 11. greater Vigour; fo that the Time of waking is a State of Violence, or a Time of wearing out the Constitution; as the Time of Sleep is a Time of recovering the Fibres from those Relaxations they are subject to through a too great Attention to different Ideas; for the Impulses, under all splenetick Diseases, are greater than what the Objects demand for their natural Conveyance under a regular State of Health; and when the Impulse, conveying any Idea, is thus briskly made on the Seat of the common Senforium, it must needs follow, that this Briskness will excite a greater Perception in the Mind; and this greater Perception, naturally over-power the Inclination to Sleep; and this is the Reason why People, far gone in the Spleen, lie whole Days and Nights, without fo much as clofing their Eyes, or being able to take the least Slumber.

AND, for the same Reason, these People seldom sleep without Dreaming, because the nervose Fibres, that compose

PART II. pose the several Organs of the Senses,

are fo strongly agitated, during the Time of Sleep, as to awaken the Imagination, and keep it attentive to whatever Ideas those Motions represent to its View; for, in Dreaming, the optick Organ being affected, affects all those Fibres of the Brain, from whence it derives its Existence, which are all these Fibres of the Brain, where the Imagination refides; fo that the Organs of the Senses have a Power to revive Ideas, that depend not upon the immediate Presence of Objects, but only the Degrees of their own mechanical Motions; for these Motions, being increas'd in the Organs, are alfo, from the same Laws of Mechanism, increas'd in the Fibres of the Brain, whereby they strike the Imagination with any Object, or the Idea of any Object, they are capable of conveying.

> Thus, to dream of being elegantly entertain'd at a Banquet, with all Manner of delicious Dainties, and fine Musick, it is necessary that the Motion be increas'd in the Optick, in the Auditory, and Nerves, that serve the Sense of

Tafting,

Tasting, because all these Senses are con-Chap. 11. cern'd in compleating the foregoing Scene.

FROM the same Causes, I am apt to think, arise most of those odd and out-ofthe-way Phænomena that some credible Persons report they have seen and heard, when awake, which only arise from a greater Motion in the fenfitive Organs, that greatly agitates the Mind, by That the irregular Motistrongly moving those Fibres, on which ons of the senthe Exercise of its Faculties depend. fible Organs are able to Thus, for Example, that a worthy Gen-bring the Ideas of Objects tleman should see a moving Coach and into view, as fix Horses pass thro' a Field, that it was well when awake, as impossible for them to pass thro'. afleep, without the im-

In Relation to this Phænomenon, I firm-mediate Prely believe, that the Idea of a Coach and fence of the Objects to exfix Horses pass'd before his Eyes, from a cite those Pergreater, internal Motion or Impulse made
on the optical Organs; but deny that
the Object was actually there; for there
are certain Ideas of Objects, that always
appear to the Mind, upon such and such
Degrees of Motion being communicated
to the Organs; and these Ideas thus appearing, are, not unsitly, call'd our waking Dreams.

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PART II.

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CHAP. XII.

Of the Causes that disconcert the noble Endowments of the rational Mind, under MELANCHOLY MADNESS, and LUNIACY.

ROM the Reasonings and Arguments of the foregoing Discourses on the Nature of the Symptoms, it clearly appears, that melancholy Madness and Lunacy are only the Spleen and Vapours improv'd, in different Constitutions, when not reliev'd by timely Applications; and, if so, it necessarily follows, that they must arise from the same Causes, more highly advanc'd into the Habit, which render all the Symptoms more dejecting in the melancholy Madness, and more bold, surious, and violent, in Lunacy, or the maniacal Madness.

CHAP. 12.

I SHALL, therefore, go on to discover how these Causes act, in order to disconcert the noble Endowments of the rational Mind, which, indeed, would be above our mechanical Philosophy to explain, did not daily Observations assure us, that the Soul, while confin'd to these Walls of Flesh, follows the Direction of the Fibre; and is vary'd, exalted, or depress'd, in Proportion as the nervose Solids are differently intended, or remitted: So that, so long as this governing Principle, the Soul, refides in its proper Vehicle, that is, a Brain regularly constituted to receive the Impressions of Objects, by the Mediation of the Senses; fo long will it exert all its Operations of Thinking, in a regular Manner: But if, from any Causes, the Brain and Nerves that fupport this thinking Being, flart from their natural Standard, then, the intellectual Faculties themselves, that have any Dependence on these animal Motions, will faulter in their Operations; upon which will follow all those odd, ridiculous, and abfurd Changes that People, in all other Respects, wife, dif-

Of the Spleen, Vapours, and 290

PART II. creet, and prudent, fancy of themselves; which being improv'd upon the Habit, constitute those different Species of melancholy Madness and Lunacy.

Of the Caufe Madness.

UNDER the melancholy Madness, we of melancholy perceive the deepest Fear, Sadness, and Despair; which Symptoms, with all their Concomitants, most affuredly arise from a Want of Spirits, from a Laxity of the Fibres that compose the Brain and Nerves, and from a thick, heavy Blood, unfit for Secretion, the Effect of that Laxity; for the Reason why the Mind is so deeply diffress'd with dark gloomy, melancholy Ideas, arises from a Defect of Spirits; and the Reason why the Spirits are defective, is owing to a thick, gross, heavy Blood; and the Reafon why the Blood abounds with these vitious Qualities, is, because the Fibres that compose the Heart and Arteries are relax'd, and, because, under these Relaxations, the attracting Principle in the Corpufcles of the Blood is increas'd above the natural Standard of Health.

CHAP. 12.

AND, in Case the Patient falls into the most gloomy State of this Disease, then the Machinulæ of all the Fibres in the vascular System are relax'd to a surprizing Degree; upon which the bodily Organs will be unable to perform their respective Duties; for this Reason their Digestions are slowly finish'd, they perspire little, and their Discharges by Stool and Urine, are in small Quantities, and not often; from whence it necessarily follows, that the Cravings of Sustenance, will be confiderably leffen'd in them, to what it is in others, under a found State of Health; and thus we account for the Reafon, why melancholy People feldom eat, drink, or fleep. These Affections happen because the Machinulæ of those finest, sensible Fibres, that compose the Organ of the Stomach, are so relax'd, that their Vibrations are incapable of affeeting the Mind with the regular Perception of Hunger, or to demand a proper Quantity of Liquids to dilute the Blood under the most intense Thirst, when the Habit is almost dry for want of Recruits; fo that they often go on whole U 2 Nights

PART II. Nights and Days without eating the least Morsel, or taking the least Drop of any Fluid to support Nature; and sometimes fall a Sacrifice to their obstinate, fullen Humour.

of religious Melancholy.

Of the Cause IF the Patient be of a religious Difposition, his Thoughts will naturally be taken off from the Ideas most familiar in this Disease, and fix'd on those of Religion; and, instead of despairing of his Recovery, which is very natural in this Disease, he will despair of his everlasting Happiness, and the kind Promises of a better Life, that his Redeemer has made to every Christian. So that this Despair does not arise from Religion, but is the Effect of these Causes that excite the natural melancholy Madness in the Habit.

of Lunacy.

Of the Causes THAT boisterous, raging Madness or Lunacy, that discovers itself in the fierce Looks, furious Gestures, and daring Actions of some Persons, is the Effect of a System of Fibres greatly elastick, whereby all the Ideas of Objects are struck on the Seat of the common Senforium, with a stronger Impulse.

Impulse. Hence arise Ideas in the Chap. 12. Mind, that are bold, daring, and rash; Actions, in the Body, that are violently strong, and above the ordinary Powers of the Constitution to perform. For in this Case the Heart and Arteries beat more forcibly, the Machinulæ of the Fibres that compose the Brain and Nerves, are strongly purs'd up, and drawn almost into a convulsive State; so that all the finest Sensations are abated, sometimes, to a Degree scarce able to create, in the Mind, an Attention to the necessary Cravings of Nature.

THAT great Strength, that often shews itself in both mad People, and the severer Kinds of histerick Fits, is owing to a greater Contraction of the Machinulæ, that compose the Fibres of the Brain, Nerves and Muscles, which generally continues in the latter till the Cause is spent; upon which the Fibres relax, and the Patient returns to her Senses again. But the Fits of Madness continue a considerable Time longer, because the Fibres of the Brain are more fix'd in their Motions, and consequently incapable of dislodging the Causes.

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They perspire little, urine less, and their Discharges by Stool are seldom, and little in Quantity, as under melancholy Madness; and, for the same Reason they will endure the severest Usage, without discovering the least Discouragement, or Sense of Uneasiness; live without Sleep, endure Hunger, Cold, and the other Extremities of Pain, to a Time almost incredible.

AND thus we account for those furprizing Relations or Histories, that mention Persons to have liv'd without Meat Drink, or Sleep, for forty or fifty Days or longer; for if the Machinulæ of the Solids are contracted above their natural Standard, and the Discharges by Perspiration, Urine, and the other Evacuations of Nature, suppress'd, or greatly abated; it necessarily follows, that Persons thus affected, will live a confiderable Time longer without Food, and, indeed, without the natural Cravings of Nature, than those in whom all these Discharges are free and unobstructed; because there will be fewer Demands for Suftenance in them, where

where fo little is expended, in carrying on CHAP. 12. the Actions of the animal OEconomy.

I F these mechanical Powers of the ner-Of the Cause vose Fibres happen to be too much con-fick Madness tracted, in Persons of a warm, biliose Constitution, elevated with a vain Conceit of Self-Holiness, then every Impulse that lodges any Idea strongly on the Brain. or common Sensorium, shall be conceiv'd by them as a Message from Above, as a Confirmation of their greater Sanctity, and consequently of their greater Familiarity with their Maker. Then every ftrong Impulse made on the Brain, is a Warning to them, to undertake whatever their strong Fancies shall suggest; for the Impulse gives the Fancy, and the Strength of the Fancy is in Proportion to the Strength of the Impulse; so that once a strong' Perfuasion is struck on the Fancy, that they are prophetically inspir'd, they, immediately, take this strong Perfuasion for a Demonstration, that they are chosen Saints, commission'd to reform the unbelieving World; and, in confequence of these strong Persuasions, are hurry'd into all the extravagant Opinions U 4 that

PART II, that their equally deluded Passions can lay hold on.

UPON this, they submit their Faculties to be impos'd upon, from every Whim or Fancy, that strongly fettles it felf upon their Minds; and conclude, from the Uncommonness of the Impulse, that their Whims and Fancies are divine Inspirations of the Holy Spirit. This is the Origine of these enthusiastick Rants, that some Persons of a warm, biliose Constitution, and far gone in the Hypochondriack Melancholy, are incident to be affected with; and which admits not of any Cure, fo readily as if you confine them to a Mad-House, and oblige them to undergo the Discipline of the Place. This Treatment will fooner recover them from this State of Lunacy, than the best Reasons you can employ, which are generally loft upon fuch kind of People.

of the way was the statistic work of the



CHAP. XIII.

Of the immediate Cause of Hyste-

BUT, in many Cases, the Spleen, Vapours, and Hypochondriack Melancholy, are not permitted to make this regular Progress, and terminate in Melancholy Madness or Lunacy; but their immediate Causes, at certain Periods, are flung off in a violent Manner by huge, convulsive Motions we call histerick Fits; and which shake the several Organs of the whole Animal Frame.

As the Ancients suppos'd, very erroneously, that Hypochondriack Melancholy arose in Men, from an Indisposition of the Spleen; so were they of Opinion, that all these various Symptoms, that affect the Constitutions of weakly Work

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PART II. men, under the Vapours and Hysterick
Fits, are owing to a Retention of vicious
Humours lodg'd in the Neck of the
Womb.

Now, the Womb, under the Vapours and Hysterick Fits, suffers no otherwise, but as there is a general Weakness in the Action of all the Animal Organs; and as the Stomach and Bowels are incapable of discharging their several Contents, so the Arterial Solids, ministring to the Laws of the Circulation, must necessarily abate of their Vigour, and confequently the Womb itself be incapable of flinging off its monthly Purgations, thro' an Imbecility of the Uterine Veffels; this must necessarily infer Obstructions in divers of the Viscera, but more especially in the Stomach, Intestines, Liver, Spleen, Brain, and Nerves.

Now the Hysterick Fit is a convulsive Motion, exerted from the mechanical Powers of the Nerves, inserted in the several foregoing Organs, whereby they endeavour, through a mechanical Necessity, to resolve the Obstructions, to discharge

Hypochondriack Melancholy.

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discharge that oppressive Load so disturb-Chap. 13. ing to these several Parts, and recover the Animal Springs to their natural Tone and Elasticity again.

How the Machinulæ of the Nerves are put upon those mechanical, convulsive Motions, in all Cases, where they suffer any Obstructions, Relaxations, or are let down beneath their natural Standard, I am now to discover: But, alas! this Sub-The Difficulty of accounting ject opens to my View fuch a perplexing for the Causes Scene of Nature, that it's with the ut-Fits. most Difficulty I can discover any fure Footing on which to rest. The Hugeness of the Motions in some, the Painfulness of the Symptoms in others, and the Diversity of the Fits in all, are Points most difficult to handle. Here it is my Philosophy fails; beyond this I cannot go with Certainty; hitherto the Grounds were probable, but now the Lights darken, my Thought's bewilder'd, and I am got to the utmost Stretch of my Tither; what follows, therefore, in this Chapter is mostly conjectural, which if it happen not to please the Taste of the most judicious Reader, yet may it afford

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PART II. afford some Hints, that may be of Service to those, that attempt this Subject with greater Abilities.

> FROM the best Observations I have been able to make, it appears, that the Brain is to the Nerves, what the Heart is to the Arteries; and as the Heart and Arteries are the Instruments of natural Heat and Motion, fo the Brain and Nerves are the Springs that furnish the feveral Organs with natural Strength, Senfation, and voluntary Motion: And as the former, from any Causes that may raise their Contractions above or beneath the Laws of Nature, will infer a greater or leffer Degree of Heat and Motion, than is confiftent with the regular Standard of Health; fo the latter, being exalted or depress'd in their Motions, will necessarily infer a greater or leffer Degree of Strength, Senfation, and involuntary Motion, in the feveral Organs of the Body, than the Standard of Health requires they should be.

> ACCORDING to these Reasonings, the Hysterick Paroxysms, will appear to have

Agues and intermittent Fevers; and I
have myself known several Cases, where
the Fits of Vapours would attack the
Patient at proper Intervals; and observe
all their Stops, Stages, and Returns, as regularly as any intermittent Fever whatever, and to whom the Jesuit's Bark
prov'd the most Sovereign Remedy.

GIVE me Leave to argue this perplexing Point a little more closely, fince there feems to be so near a Relation between intermittent Fevers and the Hysterick Paroxysms. Now, we evidently perceive in intermittent Fevers, that the Blood stagnating in any of the minute Arteries, near the Surface of the Body, or indeed in the more internal Organs, will lay a greater Force upon those that remain unobstructed; upon which the Heart will receive a greater Quantity of Blood, than the Arteries would naturally charge upon this Organ, under a found State of Health: This larger Quantity of Blood, thus charg'd upon the Heart, necessarily obliges it to redouble its Force; for the Heart being a folitary Muscle,

PART II. Muscle, is capable of intending or remitting its Motions, accordingly as it meets with a greater or leffer Refistance, which impels the Fluids to the Surface of the Body with a greater or leffer Impulse, and consequently discharges the obstructing Corpufcles by a free Breathing, that folves the Fit, and would the Disease, did not a Laxity of the Blood-Vessels remain, and suffer the Fluids to run into the same preternatural Cohesions and Contacts, whereby the fame Tragedy is repeated again, and often.

The Cause of that great Force and Strength in

Now, to what fo properly can we affign the Causes of that great Strength and Force, with which some weak Hythe struggling sterick Women exert their Arms, Legs, and whole Body in the Fits, but to those Instruments of Strength the Nerves overviolently contracted? for the Strength of the nervose and muscular Fibres, will always be increas'd or leffen'd, in Proportion to the Number of Contacts that their Machinulæ touch at in all their Vibrations, and in Proportion to the Force with which these Impulses are struck: And as those Paroxysms of Vapours are excite

excited in the same Manner, and for the Chap. 13. same Ends, as the Fits of Agues; that is, to resolve the Obstructions, and discharge the Body of a Load oppressive to Nature; it necessarily follows, that the first will demand a greater Strength and Motion, as the Obstructions are principally lodg'd in the Instruments of Strength and Motion, that is, the Brain and Nerves; and the other a greater Heat and Motion, as the Causes are in the Instruments of Heat and Motion, that is, the Blood, Heart, and Arteries.

In this Action or convulfive Motion of the Workof the Animal Organs, the Machinulæ ings of the Nerves in Hyof every nervose Fibre, are always sterick Diseases drawn over each other, and confequently greatly beyond their * Spheres of Con- * Sphere of tact; which, upon their Recession, fall Contact fignot directly into their proper Spaces, but per Structure of the Machiare drawn down beneath their Spheres of nulæ, whereby Contact, in Proportion to their Elevation, the nervose according to the Nature of all springy or abled to perelastick Bodies, that are let go under a Strength, na-State of Violence, that is, the Recourses and voluntary of the Machinulæ, are always answer-Motion. able to their Courses; or, to speak according

Part II. cording to the Language of the Mathematicians, concerning the Motion of a Pendulum drawn from the Center of its Oscillation, that the Line it describes by its Reflection, is ever equal to the Line of its Incidence.

In the Fits of the Vapours, therefore, the nervose System is either fix'd in a continu'd Convulsion, as appears to be the Case under the Still Fits, and which arises from an over-violent Contraction of the nervose Fibrillæ, wherein all their Machinulæ are drawn over their Spheres of Contact, and remain so during the Time of the Paroxysm, or are affected with divers Spasms, Tremors, and involuntary Motions, wherein the several Organs are cruelly agitated and convuls'd.

In these huge convulsive Motions attending these Scenes of Horror, the Machinulæ let go these Contacts, in which they stand during the Convulsion in the still Fits, and are violently affected with divers Motions to and from each other, which excite a much stronger, and more powerful Motion in the Fibres, and consequently

in the feveral Organs and Muscles of the CHAP. 13. Body, in Proportion to the Force of the Caufes.

In many hysterick Women, where the Fits are more still, there are unusual Motions in the Bowels, great Swellings in the Hypochonders, and a Heaving from the lower Parts of the Belly, as if something was inwardly ascending to the superior Organs: These Symptoms proceed altogether from Wind, which is driven into the Upper Parts, by the mere Force of the Fibres, during their convulfive Motions.

Sometimes it descends, and getting Of different into the Bowels, variously modulates the from wind intestinal Tubes: Hence arise those pent up in the strange, and furprizing Sounds, with Bowels. which cunning and defigning Men have impos'd upon the Vulgar, as if the Patient was possessed, or under the Influence of an Evil Tongue; for the Intestines being hollow Tubes, and capable of divers Corrugations, emit different Kinds of Sounds, according to the different Mechanism they receive from the different Straightning of their Cavities.

AND

PART II.

AND its wonderful to conceive, what Variety of strange Sounds, the Guts often furprize us with, especially, if, in Hypochondriack Persons, these Intestinal Tubes happen, through the Workings of the Fibres, to receive a Modulation in Figure not unlike the Cavity of the Epiglotis. What Barking, Yelping, Croaking, and Caterwauling Conflicts are often emitted from the Bowels, as their Cavities are differently dispos'd to receive the Impulse? For it is nothing but the Convulsions corrugating the Fibres, and differently impelling the Air, through Cavities of different Figures, that excites all that Uproar and Confusion, many People complain of, that labour under this troublesome Symptom of Wind. Sometimes it is driven to the Throat, where constringing the Nerves of the Wind-Pipe, it threatens the Patient with a Sense of Suffocation. This Constriction arises from a Convulsion, and that Convulsion from the Machinula of the Fibres constituting the Wind-Pipe being too much contracted.

Some People, under strong Fits, lose the Use of all their Senses: This happens when when the nervous Fibres are contracted CHAP. 132 fo far above their natural Standard, that the feveral Organs are thereby render'd incapable of receiving the Impression of Objects, or conveying them to the Seat of the common Sensorium This is the Case generally, both under the still Fits, and those that are attended with huge Strugglings.

And as there are two Extremes of Motion in the Animal Fibres, wherein all the Ideas of Sensation are greatly abated, and sometimes entirely lost: So is there a third Extreme, where the Idea of Pain, and, consequently, Sensation is greatly increas'd. To this Origin we may reduce those shooting Pains of the Head, those severe, racking, cholick Pains, that affect some hysterick Women with Tortures, almost above the Bearance of human Nature.

In these Cases, the Machinula of the Nerves are too much contracted from stimulating Objects, that put too great a Tension or Rigidity upon the Fibres, that compose the several Organs: Upon which the X 2

PART II. Object of Pain is struck upon the Mind with greater Vehemence; fo that, in Relation to these Pains, we are to consider the Matter, Tension, Sensation, and Perception; for it is the Matter obstructing in any Part, that excites the Tension, the Tension of the Fibres, the Sensation, and the Sensation the Perception of Pain, whereby its different Degrees are convey'd to the Mind or Seat of the common Senforium.

> Thus far of the several Requisites neceffary for knowing the Nature of these Diforders, the Symptoms attending, and their several Causes: It now remains, that I go on to discover the most proper Rules of Practice, in order to finish a compleat System of the Spleen, Vapours, and Hypochondriack Melancholly.

> > The End of the Second Part.



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SPLEEN, VAPOURS,

AND

Hypochondriack MELANCHOLY.



PART III.



CHAP. I.

Of the Certainty of Practical Principles, and their Application.

HAVE, in the First Part of this Treatise, endeavour'd to prove that there is a supreme intellectual Principle, or Soul, in every X 3

Part III. Individual; that this supreme, intellectual Principle is an immaterial Substance, or Being, that supports the different Faculties of the Understanding, Reason, Will, and the Memory: That the Exercise of these several Faculties depends on the Laws of Matter and Motion, that is, demand the Assistance of corporeal Organs, to make their Sensations and Reslections be regularly perceived.

In the Second Part, I have endeavoured to demonstrate, how, from divers Causes, these corporeal Organs may necessarily be disconcerted, in order to produce irregular Motions, irregular Sensations, and irregular Perceptions, in the Mind; from whence arise a wrong Turn of Thought and Judgment, under the Spleen, Vapours, and Hypochondriack Melancholy.

I SHALL, therefore, in this Third Part, attempt to discover the Nature of these Practical Principles, and the Certainty of their Application, in order to restore the Constitution, labouring under

the several foregoing Diseases, to its re-Chap. 1.
gular Standard of Health: For it little
avails us, that the Causes and Symptoms of Diseases arise from the irregular Motions of the Solids and Fluids;
if, at the same Time, we can't discover certain Practical Principles, that may affift us in the Application of proper Remedies, necessary to reduce those irregular Motions, within the Boundaries of Nature's Laws again.

Now, as the Certainty of Theory Of the Certainty of Theory of the Certainty of Theory Confifts in the intuitive View, that all ory. the Senses have of the Symptoms, from

lities, that always under a Disease afflict the Habit, and vary with the Symptoms; and from a rational Knowledge of these internal, irregular Motions, that disconcert the several Organs, and excite the foregoing Phænomena: So, it sollows, that, in order to cure a Disease, we must endeavour to increase or lessen these internal, irregular Motions, according as they shall be desective, or abound: So it follows, that, in order to

increase or lessen these internal, irregular

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Motions,

PARTIII. Motions, we must attempt to intend or remit the Actions of the Solids, and Fluids, in such a Manner, that the defective Qualities may prevail, and the abounding Humours pass off by some of the natural Discharges, which will prove the Cure of the Disease.

Of the Certainty of Practical Principles.

The Rectitude of practical Principles, therefore, is the Consequence of a rational Theory, supported upon the most evident Maxims of Truth: And as the latter discovers to us these irregular Motions, that excite the various Phænomena of Diseases; so the former directs us how to intend or remit the Motions of the Solids and Fluids, so as that they may move within the Sphere of their regular Standard.

THE Reason, as I humbly apprehend, why the Spleen, Vapours, and several other chronick Diseases, are so difficult of cure, is, because we too often apply to the wrong Powers: We endeavour to thicken, or thin, the Blood, and other Juices, when, at the same Time, we neglect to restore the Solids, on whose Motions,

Motions, not only the well-being of the CHAP. I. Blood, but all the other Juices secreted in the Animal Oeconomy, have their principal Dependence: And this I take to be the real Caufe of those frequent Returns of most chronick Diseases: For after we have reduc'd the Juices to as regular a Confistence, as their natural State and Condition may require, for a free Circulation; yet if a Languor remain upon the Solids, they will be unable to preserve the Fluids from unfriendly Cohesions; upon which, they will raise the same Tumult, as before, that is, there will be a Relapse, or the Disease will return.

Besides, yet, further, to prove the Precariousness of grounding any Hypothesis upon Calculations, that concern the different Qualities and Motions of the Fluids, or from Medicines, that, we know experimentally, have a Power to thicken or thin the Blood; I have, in my New Method of Treating Confumptions, demonstrated, that several Medicines will sufe the Blood in the Poringer, that will thicken it, while it

PART III. remains within the Laws of its Circulation, and vice versa.

> So that when we fay fuch and fuch a Disease is difficult of Cure, what is this, but to fay, that we are ignorant of the Laws of Nature, by which she excites fuch Phænomena in the Constitution, and, confequently, of the Indications most proper to be employ'd, in order to attain a fuccessful Cure?

I know there are many, that, with great feeming Force, will object against the Certainty of practical Principles: What, fay they, do we not daily perceive the Uncertainty of Practice, from the numberless Diseases that continue in-They that ob- curable? Are we not certain, from Experience, that the same Medicines that cur'd a Disease in one Person, shall fail of Success, if apply'd to the same Disease in another? Nay, that the same Medicines, that reliev'd the Patient, and gave a wonderful Turn to the Difease, at one Time, shall fail of Success, if apply'd to the same Disease, upon a Relapse? Which certainly demonstrates the Preca-

ject against the Certainty Practical Principles, seem not very well to understand the Question in Debate.

Precariousness of all practical Principles CHAP. I. ever yet try'd, and of all medicinal Applications ever yet grounded upon those practical Principles.

To all which, give me Leave to anfwer, that it is impossible in the Nature of Things, but that the fame Effects will always arise from the same Causes, acting in the same given Circumstances: And that confequently the same Effects, that is, the same Disease will always be removeable from the same Administrations or Applications of Remedies, acting in the same given Circumstances.

IT would be confounding all the The fame Cau-Laws of Nature, and Certainty, by fes always prowhich we judge of the Truth of fuch Effects in the Laws, to affert, that Medicines, in their Circumstan-Operations, are not constant, steady, ces, and the Effects, and regular; and much the fame, as to that is, the fay, that the same Causes do not pro- are always reduce the same Effects, in the same given Circumstances, which is contrary to Ex- plications actperiments, Matters of Fact, and the Tef- fame given timony of all Men endued with the noble Principle of Reason: And, therefore,

fame given same Diseases, moveable from the fame Aping in the Circumstances. PARTIII. if at any Time an Application be made to a Disease, that does not relieve it, which did relieve it before, it is a sure Indication, that the Symptoms of that Disease vary now, from what they were before.

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In the Cure of Diseases, we ought, above all other Things, to consider, that their Symptoms vary mightily every Moment of Time, and consequently are not, when they return upon Relapses, what they were in the original Disease; for, generally, they have had a considerable longer Time to rivet on a weakly Constitution, and vary the Motions of the Solids and Fluids; and, therefore, will demand a considerable greater Time, in order to resolve the Obstructions, and give a Freedom to the Action of the Organs embarrass'd, thro' the Violence of these irregular Motions.

THE only material Point that remains to be consider'd, in order to ascertain a successful Practice, is, to discover some Criterion whereby we may certainly judge of the particular Constitution of

the Patient; for when once we have disco- CHAP. 1. ver'd a Set of proper Remedies, and certain practical Principles to ground their Operations upon; we shall easily judge of the proper Circumstances of their Application, if we can but discover the particular Constitution, that, at that Time, predominates in the Patient's Habit.



Now we certainly shall discover all the different Constitutions that come under our Inspection, from the hottest to the coldest, from the driest to the moistest, from the different Beating of the Pulse, from the different Motions of the Solids and Fluids, and from the several external, obvious, sensible Qualities, depending on these Motions, as they are higher or lower, fwifter or flower; and of which I have copiously enlarg'd in the first Chapter of the second Part of this Discourse.

This is then all, that we know of these Matters, and this is all that we need defire to know, in order to attain the highest Certainty in the Application of these practical Principles: For we

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have

PART III. have but a very imperfect Idea of the first constituent Figures of Matter; the Causes of Diseases depending on the Bulks of Corpufcles, greatly remov'd from those ultimate Divisions, that constitute their primogenial Simularity, and are rather owing to their different Cohefions, Magnitudes, and Motions, than their Figures.

> I know some understand by the Certainty of Practice, a Power in Medicine, of curing all Difeases, in all Ages, Sexes, and Constitutions; but by the Certainty of Method, or the certain Application of these practical Principles, I only conceive a Power in Medicine, capable of relieving the Constitution, as far as it is relievable, from certain Indications, under certain given Circumstances.

> THESE certain given Circumstances are discoverable from several concurring Marks, Tokens, and Symptoms, that indicate the System of the Solids and Fluids, not incapable of a Restauration; which is only to be effected by prescribing the several Doses of the Medicines

answerable to the removing the Quan- CHAP. I. tity of Matter causing the Disease: But here a Question very naturally recurs, and that is, How shall we judge of the How to judge Quantity of Matter, and the Force of of the Quan-Medicines necessary to be employ'd in or- and the Force, der to unlock the Obstructions? And that unlock the Obwill appear very clear in the Spleen, fructions. from the Oppression of those particular Organs, that labour under the Disease; and from the feveral visible Circumstances, that necessarily attend that Oppression.

tity of Matter,

To explain these curative Indications in the clearest Manner, we are to confider, that under the Spleen, the whole nervous System is let down beneath the Standard of Nature, through a Defect of animal Fluids, and the animal Fluids are defective, because the Glands of the Brain are too much relax'd, whereby the Secretions of the animal Fluids are lessen'd; and the Secretions of the animal Fluids are diminish'd, because the Systole of the Brain is impair'd, and the Systole of the Brain is impair'd, from an Abatement of Elasticity in the Impulses of the arterial Solids; and the Contractions Part III. tractions of the Arteries are weaken'd from the impair'd Force of the Heart; and the Heart we discover to be impair'd in its Action, from the languid Beating of the Pulse: So that when once we have made a Discovery of the several Instruments affected, from a Chain of Consesquences supported upon the clearest Reasonings, we have nothing more to do, but to apply a Force capable of restoring the Motions of these several foregoing Organs; in which Case, their several Impulses, Secretions, Sensations and Perceptions, will be restored to their regular

The only Point I can perceive that remains undiscover'd, is, how we shall be able to judge of the particular Force necessary to be employ'd in any particular Disease. This Point, I must confess, can be resolv'd upon no other Grounds, than by putting the particular Case; for the Symptoms generally indicate the Intensenss of the Disease, and the Intensenss of the Disease, the particular Force necessary to be employ'd in its Cure.

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IF, indeed, the Obstructions are ei- Chap. I. ther so fast wedg'd upon the Habit, as not to give way to the necessary Impulse; or if the Constitution, at the same Time, is so weakly reduc'd, as to be incapable of bearing the Force necessary to resolve the obstructing Matter, then it follows, that both these Cases will come under the Denomination of incurable Diseases, and do not at all affect either the Certainty of practical Principles, or their Application.

How this Manner of Reasoning will be relish'd by those, that declare it impossible to discover Certainty, any further than they can discover Ideas, I know not But as the various Phænomena, Changes, and Effects, of human Bodies, are attended with certain Motions; and as these Motions are discoverable from certain, sensible, obvious Qualities, that come under the Inspection of our Senses; so it appears, in the clearest Manner evident, that these invisible Motions, by the foregoing Chain of Reasonings, are brought under a direct and immediate View of the Mind, by considering them closely

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PART III. connected, with these external, sensible, evident Qualities; for the Certainty of our Ideas, and their Connexion immediately perceiv'd, depends on Intuition: The Certainty of our Ideas, and their Connexion, not immediately perceived, but only by Ideas going before, and coming after, on Reflection, supported upon the clearest Reasonings. And tho' the Certainty of the latter may not be felf-evident to the Senses, as in the former Case; yet I see not, why, in a physical Sense, it should not amount to certain Knowledge, which is the Self-evidence of the Mind, and all the Evidence it can have of Propositions, that come not within the immediate View of the Senses.

To conclude: Give me Leave to obferve, that it's impossible for the Wit of
Man to conceive any Idea of a Disease,
but what must arise from either a too
great Contraction or Relaxation of the
Machinulæ of the Fibres; whether that
Indisposition is nervous, chronick, or
of an acute Nature. That, in all Cases
of Diseases, there are certain inseparable
Symptoms,

Symptoms, that clearly indicate whether CHAP. I. the Fibres of the several Organs are under a State of too great Contraction or Relaxation, which, with the greatest Certainty, points out the most proper Methods, in order to restore these disaffected Organs.

Of all these particular Indications, the Mind has an intuitive View, and can look as far into their abstruse, mysterious Natures, as is necessary to enable the Physician to act upon the most steady, certain, and undoubted Principles. And this, more especially, holds good, if the Chain of Ideas that supports the Theory and Practice be clearly connected, and no Links left out, that may render the Demonstration incompleat,

PART III.

ANCHONO DE LONG BOUNK

CHAP. II.

Of the Laws and Regulations to be obferved, in relation to the Air, Diet, and Exercise.

UT in vain have we attempted to discover the Certainty of practical Principles: In vain is the Administration of the choicest Remedies upon these certain practical Principles, unless the Patient is firm in his Resolutions of living conformable to certain Rules, that may affift his Conftitution to overcome those noxious Humours, that are fwill'd into the Habit, from a vicious and irregular Way of living: For it will be impossible to make any confiderable Advances in the Cure of this Disease, unless he resolves, in the first Place, to abridge the Quantity of his Food, and change those rich, poig. nant Sauces, and hot, spicy Ragoos, for a plain, simple, innocent Diet upon white Meats, and fuch as may affift the Re-Roration of the nervous Solids, without laying laying any great Stress upon the Di-CHAP. 2. gestions.

THE Benefits that arise from an Abridgment of our Diet, in this Disease, are very confiderable; for by this Means we shall quickly lower the Impulses of the Solids, the Motions of the Blood and Humours, the Secretion of the Spirits, and that Quantity of Force with which the Nerves strike the common Senforium; and, confequently, prevent those active Sensations, from making too brisk Efforts upon the Mind, through the prevailing Influence of the Passions.

Now, although Experience confirms, All customary that all customary Habits are extremely Habits exdifficult to overcome; yet the biliofe, cult to leave; of all others, demands the greatest Re- and why. fistance from the Mind; because, under this Constitution, the Impulses are struck on the Seat of the common Senforium, from all affecting Objects, with the greatest Sensibility, which irresistibly excites this noble, thinking Power, to demand the more frequent Returns of fresh Supplies, to satisfy its Cravings: These continual

PARTIII. continual Gluts, must, in Time, impair the noblest Organs, vitiate the Mind, and enervate the several nervous Springs of the whole Animal OEconomy. And this is the Reason, why the most ingenious Natures, are so incident to be affected with the Spleen, especially, if their Circumstances will allow them a general Indulgence in all the luxurious Pleasures of Life,

Tho', in regulating the Patient's Diet, under most other chronick Diseases, attenuating Aliments be preferable to all others, yet a greater Latitude and Indulgence must be granted towards splenitick People, because their Passions are strong, and least able to bear a Change from that Diet, they have been naturally accustomed to. However, as little slesh Meats as possible, and these dress'd in the plainest Manner, will be most available in the Cure of this Disease.

Of Diet.

And as the Spleen proceeds from a Decay of the nervous Fibres, as Confumptions do from a Waste of the must cular, sleshy Fibres; so I think, that a Diet upon Vegetables, and the lighter Animals.

Animals, that is, such as contain the Chap. 2. least Blood, is preferable in this Discase, to all others. To this End and Purpose, best agree, Oysters, Crawsish, Chocolate, and Jelly of Calves-Feet, new-laid Eggs, Chickens, Chicken Broath, little Birds, &c. The Viper Broath and Viper Wine, I account as Remedies inferior to none in nourishing the Nerves.

MILK is nought for splenitick Constitutions, unless the Habit be highly biliose; for, from the Sharpness of the Juices, it is apt to curdle on the Stomach, and generate cholick Pains, and other Symptoms extremely disturbing to Nature; however, the Ass's Milk, in some Constitutions, will prove a very friendly Nourishment.

Whatever be the Patient's Food, he ought to eat little at Times, and often; and if he perceives the Wind greatly to disturb him after Meals, he ought to take some peptick Powders, to assist his Digestion; and, in the mean Time, let him sit a while before he goes upon his Y 4 Exercise,

PARTIII. Exercise, lest a too speedy Motion, upon a full Stomach, should excite that Organ to sling off the Meats before they are well digested.

Of Drink.

His constant Drink, employ'd in the Office of Digestion, should be either small Beer, or fine soft Ale, if he be of a biliose Constitution; or Wine and Water, if inclinable to generate Phlegm. Under these latter Circumstances, he may indulge a little more freely in a Glass of generous Wine; the plain French Wines are best, of all others, if moderately us'd, in all Cases of the Spleen, Vapours, and hypochondriack Melancholy.

Of Drams.

But, above all, he ought to be highly careful never to habituate himself to Drams; for they certainly prove fatal to all Persons that indulge themselves in their extravagant Use. By their great Heat, they crisp up the Fibres, impair the natural Contraction of the Solids, the natural Motion of the Fluids, depending on these Contractions, and consequently the natural Heat. I have my

felf, known several, that, from the most Chap. 2. hale, strong, robust Constitutions, have been reduc'd to a feeble, weakly, enervated Habit, through their immoderate Use.

Instead of raising, they depress, the Spirits, and are but Cheats, that give a momentary Relief: Like Gunpowder, they raise a sudden Blaze, that is soon extinguish'd, and generally follow'd with a succeeding Gloom. They therefore ought to be avoided as you wou'd Death itself, to which they seldom fail to pave the Way, if Care be not timely taken to prevent their fatal Effects.

I should, indeed, according to the Of the Benefits Order of the Nonnaturals, have treated of the Air. of the Benefits of the Air, before that of Diet; but as it is impossible that this Element can ever disconcert the animal Motions, unless the Constitution be first impair'd, from a vicious Method of Diet; so I thought it most agreeable to the Laws of Nature, to treat of the Caufes that generate the Disease, before those that only excite the Symptoms; for the Air

PART III.

The Air never concern'd in generating the Spleen, but only in exciting a Fit from Causes already generated in the Body of splenitick People.

PART III. Air is seldom or never concerned in ge-The Air never nerating the Spleen; it only excites a Fit, concern'd in by putting those Causes in Motion, that, generating the Spleen, but on- before, had an Existence in the Body.

This appears most conspicuously clear, in those that are subject to vary the Exercise of their intellectual Faculties, according to the different Point from whence the Wind blows: These weather-glass Constitutions, shall be more exact in discovering the immediate Changes of the Atmosphere, from the different Elevation or Depression of their Spirits, than the most exact Barometer you shall meet with.

Now, as the Machinulæ of the Fibres, through the whole Constitution of the Solids, are relax'd, and let down beneath the Standard of Nature; so it sollows, that a fine, light, open Air, moderately cold, and free from high Hills, great Mountains, or lofty Woods, that may interrupt its fine Breezes, and take off from its Spring, is most proper to brace, restore, and wind up those impair'd Springs of Life to their primitive Contents.

Condition again; and if the Soil be ra- CHAP. 2. ther flopingly rifing, fo much the better; and those Situations are always preferable to live near, where the Soil naturally produces Plenty of pleafant Flowers, whose fragrant Corpuscles the Air will not fail to attract, and convey in pleasing Sensations to the Brain, and Faculties of the Senses. For these Reasons, I hold Hampstead, Highgate, and Blackheath, preferable to all other Places near this great Metropolis; because the Air in these Places, is thin, fubtile, clear, and much impregnated with nitrous Corpufcles, that will add a Stimulus to the Constitution, increase the Secretions, refolve the Obstructions, and, confequently, give a Freedom to the Circulation: Not, but that the Patient may equally reap the Benefits of this Element, in other Places, where good Company abounds; which is a principal Point always to be had under Confideration.

In treating of the Benefits that arise Of the Benefits to the Constitution from Exercise, I shall of Exercise. speak of it under a two-fold Consideration: First, As it restores the contractile

PART III. tractile Force of the Solids, greatly impair'd under the Violence of this Disease. Secondly, As it affists the Mind to overcome those despairing Ideas that depress the Exercise of its Faculties.

Ir's impossible to conceive the Benefits that arise to the Constitution from Exercise, either on Horseback, or in a light open Chaise; the former resolves the Obstructions of the Stomach, enlarges the Secretions of the Viscera, and reftores the Texture of the Solids, whereby it renders those Corpuscles capable of paffing Strainers, which they could not pass before, unaffisted with this Motion-Besides, Riding is an Exercise that puts the feveral Parts of the Body to the least Stress; for while we are on Horseback, or in an open Chaise, we cannot be said fo well to exercise, as to be exercis'd; for the Man, to all Intents and Purposes of labouring, is passive, and the Horse exercises or works him; so that the Benefits of this Motion is equally apply'd to all Parts of the Body, without the least Resistance from himself: And this Exercise may be so varied, intended, or remitted,

remitted, as to give Relief to all Ages, Chap. 2. Constitutions, and Degrees of the Spleen, which is more than can be said of any one Remedy besides, in the whole Republick of Physick; for he may keep his Horse to what Pace he pleases; and, if a Trot be too jolting, he may put him to a Hand-gallop, may amble, pace, or walk him.

And, indeed, I have my self, under a dangerous Decay, attended with several splenitick Symptoms, receiv'd so much Advantage from this Exercise, that I cannot, but in the most earnest Manner, recommend it to all that perceive their Constitutions begin to give way.

I know it is very difficult to persuade some People that so much Benefit can accrue to the Constitution from Riding; but this Incredulity arises from their not considering the great Dependence that the Structure and Mechanism of the Solids have on external, foreign Motions. They that are desirous of further Observations on this Subject, may consult my New Method of treating Consumptions, where

PART III. where I have particularly demonstrated, that the restitutive Force of all animal Fibres, is greater than their distractive Powers, upon the Application of Motion.

Of the Benefit of Exercise to the Mind.

Bur not only to the Body is the Exercise of Riding thus advantageous, but the Mind also greatly partakes of the Benefit. This intellectual Principle, under the Spleen, is fast chain'd down to a particular Way of Thinking: All its Ideas are dark, gloomy, and dejecting; which depress our Thoughts, and keep them too long attentive to the same Objects. Now Riding takes the Mind off from that too long and anxious Attention to the same Ideas, by foliciting our Senses with different Objects, that arise from the various Scenes of Nature, through which we pass; and which must enlarge our Thoughts, and confequently make them less attentive to those particular Views, to which before they were habituated during their State of Inaction.

WE perceive, that Men long inur'd to Business, if they suddenly sling it up, readily want of proper Objects to keep up the Mind's Attention. This so certainly happens, and Men of great Dealings are so sensible of it, that they will rather choose to undergo any Fatigue or Drudgery in Life, than entirely quit their Occupation; for the Mind can no more be unemploy'd for any considerable Time, without suffering a Change, than the Body can intermit Exercise, and continue in Health.

AND, for this Reason, we perceive, that they that fleep much, feldom difcover any great Abilities in the intellectual Faculties; because these overlong Interruptions with Self, fo weaken the Springs of the finest, animal Fibres, on which the Exercise of those Faculties depend, that their Play and Action are thereby greatly obstructed. So that he that would live in a Freedom from the Spleen, must be exactly careful of his Diet, of his Exercise, and of his Pleafures; which will be the only Way to keep the Balance of the Constitution even, and the Passions regular in their Motions. CHAP.

PART III.

CHAP. III.

Of the Government of the Passions under the Spleen and Vapours.

Shades and Lights, that so much diversify the different Scenes of Life; and as these have a very great Dependence on our Passions, so it will appear how much it concerns us, to regulate their Motions, and keep them subservient to the Command of Reason.

The Passions never exceed our reasonable Appetites, till the intellectual
Principle, or Soul, subject the Government of the Body to the Guidance of the
Senses; that is, till it give into all the
extravagant Desires that arise from the irregular Impulses of their Organs: So
that where Reason should govern, the
sensual or exorbitant Passions govern, and
captivate the Understanding to their
Will.

As, therefore, our Happiness or Mi- CHAP. 3. fery of Life arises from a Mixture of Good and Evil, which the divine Author of our Being has made inseparable to the very Frame and Constitution of our Natures; so it follows, that the Degrees of each are to be estimated from the Presence or Absence of these opposite Characters we call Pleasure and Pain; and the Length of Time either of these Affections are present or absent to the Body, which gives us the livelieft Idea of Happiness or Misery. This is the clearest Way of computing the Degrees of our Pleasures or Pains; and discovering on which Side the Balance lies.

Happiness, but the Missortune is, that they are resolv'd to have it in a Way that is impossible to our Natures; that is, all neat without the least Alloy, and, which were it possible, must in Time necessarily turn to Misery: For were our Lives one continual Scene of Good, or a continual Succession of pleasureable Ideas, that Good, these Pleasures, would soon grow insipid and tasteless; and cease to charm

PART III. us with their fine, agreeable Relish, for want of the Objects of Evil to refer them to: For Good is a relative Term, which is impossible to be understood, but as it is referr'd to some Object inferior to it in Goodness, or at least to us in certain Circumstances of Happiness.

No Possibility of absolute Happiness in this Life.

LET any Man imagine to himself the most advantageous Scenes his own Heart can wish, yet, upon Possession, he will find himself as far from being entirely happy, as he was before their Acquifition; nay, it will be Odds, if he be not attended with greater and more insupportable Woe and Unhappiness upon their Enjoyment. These little Ills of Life, or those flight Afflictions, incident to affect the bravest Souls, set off their fucceeding Pleasures with the greater Relish, and render their Joys more exquisitely compleat, in the same Manner as Discords rightly plac'd in Musick, raise the Harmony of the Concords, and prefent to the Mind a most beautiful Contraft of different Sounds. And I have obferved Intervals my felf, when not the least

least Breath of Air has blown cross up- CHAP. 3. on my Affairs, not the least Shade overcast this Sun-shine; that, under this favourable Gale, internal Motions would spring up in the Mind, generating Paffions, that wou'd jar, quarrel, and fadden this most pleasing Prospect.

THAT Man may certainly be faid to be happy, whose Number and Degrees of Pleasures exceed his Number and Degrees of Pain; and were I to chalk out a Life attended with the most pleafing Scenes, that mortal Man is capable of enjoying, I would fix the Zenith of Some Degrees his Happiness in a State, that should give necessary to him five or fix Degrees of Pleasure for render the Pleasures of one of Pain, through all the fucceeding Life more af-Periods of Life: And that Man would have little Reason to quarrel with the Structure, Mechanism, and Make of his Constitution, for not being more absolutely free from the Uneafinesses of Life; since these little Inequalities would be neceffary to give a Relish and Uniformity even to the finest Pleasures themselves.

of Uneafiness

PARTIII. Now if we grant a longer Period to our Satisfactions, than five or fix to one, our very Joys would pall upon the Sense, and change their pleasing Affections into some Degree of Pain or Uneafiness. If the Pains, or these gloomy Scenes of Nature, were longer in their Periods than what we have here given, then they would too much disconcert the Pleafures themselves, that is, render the Objects less affecting.

> AND this Calculation of Pleasures and Pains, or of the Goods and Evils of Life, I look upon to be the exactest Medium, in order to render our Being compleatly happy, and which very few enjoy: For I do not remember, that among all the Numbers of my Acquaintance, I ever convers'd with one upon these Points, that his Satisfactions and Pleasures did scarce over-balance his Difappointments, Miseries, and Afflictions; tho' his Affairs were under the best Management, and his Circumstances in the most flourishing Condition. So that it is not the external Pomp and Affluence of Fortune, but the inward Peace and Contentment of the Mind, that must render

the Individual compleatly happy, if CHAP. 3. ever he expects to enjoy the Blessings of a peaceable and perfect Tranquillity.

What the Stoicks meant by their Summum Bonum, I am not able to conceive; unless it was a pleasurable Life, abstracted from all Evil; which is a State rather to be desir'd than enjoy'd, and which is impossible, in the Nature of Things, on this Side Immortality.

FROM the foregoing Reasonings on this Subject, it clearly appears, that most of our Miseries are of our own making; and generally arise from the Passions greatly elevated above their natural Standard.

THE Cause of these Elevations, or exorbitant Risings of the Passions, is owing to the exorbitant Impulses with which the sensible Fibres strike the Seat of the common Sensorium, whereby the Inclinations are strongly impelled to divers Objects, often very unsuitable to our State and Condition.

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PARTIII. THE Cause of these violent Impulses arises from an irregular Manner of Living, highly contrary to the Laws of the Constitution; and which inflame the Blood, fire the Passions, and put all Nature into a Ferment.

> So that the first Step, towards lowering the Passions, Inclinations, and irregular Appetites, is to abate of our Diet, which will lower the Blood's Motion, retard the Secretion of the Spirits, and confequently lessen the Impulses that the Nerves make upon the common Senforium.

UPON Things being thus conducted in the Animal OEconomy, all the Faculties will support their proper Action, the Motion of the Passions will be subordinate to the Motions of the Understanding; and the Mind it self steady, ferene, and calm, in the most important Scenes of Life: And in this Tranquility consists the true Happiness of human Life, as far as it is attainable in this imperfect State of Nature.

To conclude, If we would live free Chap. 4. from the Spleen and Vapours, we ought to subject the Conduct of the Passions to the sovereign Power of the Understanding; and never too anxiously pursue Objects that may give us too great Pain and Uneasiness, or that are out of our Reach to attain.

ERECERCIA DATE

CHAP. IV.

Of the Powers of Musick in soothing the Passions, and allaying the Tempests of the Soul, under the Spleen, Vapours, and Hypochondriack Melancholy.

In the First Part of this Treatise I lay it down as a fundamental Principle, that there is a Connexion between certain Motions of the Mind, we call Passions, and certain Motions of the Fibres of the Brain, that support these Passions; and that both are capable of being varied, exalted, or depress'd, accordingly.

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PART III. ingly as the Force of musical Sounds differently influence their Motions.

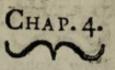
In Musick, two Things are to be consider'd, in order to discover the Changes made in the Mind, and Motions of the animal Fibres, from its Influence: First, how these exquisitely pleasing Sensations, it communicates to the Mind, are produc'd, from the Reason of Sounds. Secondly, how the Benefits are imparted to the Constitution of the animal Fibres from their Force.

Of the Sentiments of the Ancients con-] cerning the Power of Mufick, in Relieving of human Infirmitics.

It is the divine Plata's Opinion, that the Charms of Musick has as great an Influence over the Mind, as the Air has over the Body; and by no means to be neglected, in the Cure of Diseases, where the Mind is equally affected with the Body: And as Medicines purge the Body of those grosser Humours, that clog the less noble Organs; so Musick purges the Soul of those gloomy Thoughts or Passions, that, if suffer'd to continue, will weaken, impair, and disconcert the Exercise of its noblest Faculties.

CICERO

CICERO also, is full on the same CHAP. 4. Subject, in his second Book De Legibus; where, treating of Musick, he thus expresses himself; Vix dici potest, quanta sit vis in utramque partem; namque & incitat languentes & languefacit incitatos, & tum remittit Animos tum contrabit.



So that, by all Observations, as well ancient as modern, it appears, that Mufick can fo irrefiftibly work upon the Passions, as either to raise the dejected Ideas of the Soul, indulge the folemn compos'd Frame of the Spirits, or fink them into the most abject and melancholy Sadnefs.

Now it is impossible to conceive how any kind of Musick should ever be able to alter the Mind, or its Faculties, in that strange Manner, without inferring Changes in the Fibres of the Brain; unless there were a Sense or Reason in the different Modulation of the Sound,

BEAR BEAR STORE STORES

PARTIII. How Mulick produces different Changes in the Organs of the Brain, and confe-Exercise of the intellectual Faculties.

THAT, in order to produce these Changes, it is necessary that the oscillatory Force of the Air should vibrate against the Tympanum of the Ear, by whose Motion these finest Fibres of the audiquently in the tory Nerve are affected, and consequently all those Fibres of the Brain that go to the forming of this Nerve, which are all those Fibres of the Brain where the intellectual Faculties have their immediate Residence.

> THAT it is this peculiar Harmony, Confent, and Agreement, between the Motion of the Sound, the Motion of those fine Fibres of the Brain, and the Perception of the intellectual Faculties, that gives us those exquisitely pleasing Senfations, that so agreeably affect us upon the hearing of a well-play'd Confort; for there is a natural Agreement in Harmony, that depends on the regular Placing of the Notes in Tune, which we call Composition in Musick; and which, were it mathematically exact; would excite the highest, intellectual Pleasure, that the Mind of Man is capable of enjoying from Sound.

THAT the Sound itself, abstracted from CHAP. 4. the Force or Motion, if that were possible, might afford to the Mind the same agreeable Satisfactions without the Impulse; that is, the Sounds, from the intellectual Principle perceiving their Agreement or Reason, would be able to give us very furprizing Entertainments; yet, without the Motion, they could not so irrefistibly affect the Passions in that agreeable Manner they do; because their Affections depend on the Impulses of the fine Fibres of the auditory Nerve, which moves all those Points of the Brain, that affift the Motions of the Paffions.

So that, according to this mechanical Way of reasoning upon this abstruse Subject, it clearly appears, that the raifing or depressing of the Passions, depends on the Force of Sounds raising or depressing the Motions of the Fibres of the Brain; the Pleasure of the intellectual Principle, on the different Modulation of the Tune, which is the Sense of Sounds.

PART III. Now as it is evident, that the Spleen and Vapours arise from disorderly Sallies of the Passions, inferr'd from irregular Motions of the animal Fibres, so it follows, that nothing can give those surprizing Turns, in the Cure, as Sounds duly modulated; for these musical Sounds, confisting of a certain Degree of Motion, Impulse, and Reason, (being convey'd to the Seat of the common Sensorium) necessarily brace, skrew up, and restore the Machinulæ of the finest Fibres; asswage the turbulent Motions of the Passions; and, at the same Time, communicate a fovereign Pleasure to the Mind itself; whereby Ideas, either chearful, gay, and enlivening; or folemn, fad, and dejecting, are struck upon the Soul, or at least its principal Faculties, according to the different Impulse, Reafon, and Modulation of the Tune.

> AND we are credibly inform'd, from the Records of Antiquity, that Musick has that powerful Influence over the Passions, as well as intellectual Faculties, of the Soul; that it is capable of producing the most considerable Changes in animal

Bodies; so that the most warlike Dispo-Chap. 5. sitions, in their greatest Rage, have been tun'd into Temper; while, on the other Hand, the most dastard, cowardly Wretches, by its Force, have been spirited up to undertake the most bold, daring, and adventurous Enterprizes.



CHAP. V.

Practical Observations concerning the Operation of some particular Medicines, in the Spleen, Vapours, and Hypochondriack Melancholy.

B UT some, perhaps, may say, that if the Spleen and Vapours arise from these disorderly Sallies of the Passions, and if Musick have this powerful Influence in asswaging these Tumults, and restoring the contractile Powers of the animal Fibres; to what End and Purpose

PARTIII. Purpose serve the Preparations of Me-Micines?

> To this I answer, To very good Ends and Purposes every Way; for though the Force of Sounds have this Influence in Restoring the Texture of these finest Fibres of the Brain, that immediately support the Action of the Passions; yet the Stomach, the Spleen, and other inferior Organs of the Habit, demand a coarser Treatment, in order to restore their Fibres to a regular Standard.

> I shall, therefore, in this Chapter, proceed to take into Confideration, the Nature of those Medicines most proper to be employ'd in these Disorders, the Manner of their Operation, the Changes and Alterations they infer in those groffer Organs, in order to compleat a fuccessful Cure.

Of Bleeding, in the Spleen.

Now though Bleeding be a Discharge and its Effects, highly improper under most Kinds of splenetick Affections; yet in biliose or fanguine Constitutions, in Cases where Symptoms of a plethorick Disposition exist,

exist, eight or ten Ounces may safely CHAP. 5. be taken away with Advantage; though certainly unless manifest Indications give some Tokens or Marks of its Necessity, it is a Discharge least of all to be indulg'd in the Spleen; for it weakens the contractile Force of the Fibres, lets down their Machinula already too much relax'd, and impairs the Motion of the Blood and Spirits. However, it feems most particularly indicated in convulsive Coughs, in sharp, acute Pains, that often affect vapourish Women in the hysterick Cholick: And in these Cases it ought to be administer'd in the Beginning, not when Nature is almost funk, through the Violence of the Disease.

But though Bleeding is a very preca- Of Vomits, and their Efrious Operation, and not to be admi-feas. nister'd without good Advice, yet Vomits skilfully manag'd, are the most fovereign Remedies, that Nature has provided us with in the Republick of Physick, against the Spleen. These Medicines, from the advantageous Situation of the Stomach, give a confiderable Turn to feveral chronick Diseases lodg'd in the lower

PARTIII. lower Organs of the Habit; for they pump from the extremest Parts of the Body, those Humours that cannot so commodiously be discharg'd by any other Evacuation. They shake the stubborn Humours impacted in the Lungs, Stomach, Spleen, intestines, and mesentery Glands, resolve the Obstructions of their several Fibres, and, by their Force and Straining in the Operation, very much restore the Machinulæ of the over-relax'd Fibres.

But thus much I must confess, that Perfons of biliose Constitutions, as also, those that have long Necks, strait Chests, and small Veins, do not bear the Essects of a Vomit, or other Medicine that may subject the Body to a harsh or violent Operation, without great Emotion.

Of Purging Medicines. In these Cases we must endeavour to procure the Benefit of vomiting Medicines, by those that work by Seige or Stool. However, great Regard must always be had to the different Temperature of the Habit: Hot, dry, and biliose Constitutions, will require gentle, cooling,

cooling, relaxing Medicines, and fuch Chap. 5. as may check the over-violent, contractile Force of the Fibres, asswage the Heat and Motion of the Juices, and compose the Hurry and Tumult in the several Organs of the animal OEconomy, for which End and Purpose, I know nothing preferable to the following.

Re Extract. Cassiæ Zi. Crem. Tart. Ziii. Syr. Violar. Zvi. m. f. Bol. capt. Mane.

In some Cases of the Spleen, the Epsom, or Glauber Salts, prove an excellent Remedy to cool the Body. But if the Patient be of a sanguine Constitution, that is, less abounding with Bile or Choler, then the following will be preferable.

R. Fol. Sen. 3iii. Rhabarb. 3i. Sem. Fænic. dulc. Rad. Glyceriz. ana 3i. coq. in Aq. Font. 3vi. ad 3iii. colat. cui adde Man. opt. dif. 3i. Aq. Cin. fort. 3iii.m.f. Hauft.

OR in Cases where the Habit is less sanguine, that is, more abounding with Phlegm,

PART III. R. Tinetur. Sacr. Ziiß, Syr. de Spin. Cervin, 3\beta, m. f. Haust.

> BUT in cold, phlegmatick Conftitutions, where the Motions are greatly depress'd beneath the Standard of Nature, the warmer cordial Purges will be the most proper Medicines to be given.

Re Elix. Salut. Ziiß, Syr. de Spin. Cervin. 3vi. vel 3i. m. f. Hauft. vel,

Re Calomel. gr. xx. Extract. Rud. Pill. ex Duobus ana gr. xvi. m. f. Pill. No. 5, cap. Mane cum Regimine.

AND thus, by varying the Prescription, according as the Constitution differs, we arrive at the greatest Certainty in the Application of Remedies: And the Reason why purging Medicines so often deceive the Expectations of the Physician, under the Spleen, is not that they are improper in the Disease itself, but only difagreeable to that particular Constitution.

And I have known my felf, a purging Chap. 5. Medicine run off from the Bowels, and give the Patient 30 or 40 Stools, which was intended, by the Administrator, to give not above three or four; and if he had consulted the Patient's Constitution, he might easily have discover'd the Reason why that Remedy was highly improper for him under these Circumstances.

WHEN the Juices are reduc'd to their just Standard and Quantity, by proper Evacuations, it will then be proper to brace the Solids, and restore their Machinulæ; and I know no Remedies in Nature that perfect this Branch of Practice with better Success than Steel Preparations, the Bark, and Chalybeat Waters. These are most proper to restore the impair'd Digestions of the Stomach, Bowels, and Organ of the Spleen: But as I have discours'd of these several Remedies with fome laudable Exactness, in my New Method of Treating Consumptions, so it would be actum agere for me to enlarge again upon them in this Difcourfe.

Opium.

PARTIII. But of all Medicines in the Spleen, I Of the Effect's know none equal or fit to compare with and Virtues of that truly noble Drug we call Opium. It's our Refuge in all Diffresses; it gives Ease and Relief in the most torturing Pains, and when all other Remedies fail; and as I have not taken Notice of its Operation in any of my former Works, fo I shall beg the Reader's Favour to enlarge a little upon its Virtues in this Place.

> OPIUM is a Medicine of that fingular Benefit, under the Spleen, that in some Cases it would be impossible to procure any Relief without it. I shall therefore endeavour, as briefly as I can, to difcover the Nature of its Qualities, from those visible Effects we generally perceive to accompany its Operation.

Of its Operation in biliofe Constitutions, Sleep.

I know it is the Opinion of some, that opiate Medicines raise the Contracand its caufing tion of the Solids, accelerate the Circulation of the Blood, the Secretion of the Spirits, and thin the Humours; but these Effects cannot fo properly be faid to proceed from any Qualities of the Opiate,

1mme-

immediately acting upon the Nerves, as Chap. 5. from the Effects that succeed its Operation; for by relaxing the Fibres of the Brain and Nerves, it sets their Machinulæ at such a Distance from each other, as either totally destroys their Sensations, or at least greatly impairs them; whereupon it comes to pass, that the Perceptions are intercepted for a while, and a pleasing Stupesaction brought on upon all the Organs, that serve the several Senses, which Phænomenon we call Sleep.

Now in all Cases of Sleep, the Perspiration is considerably lessen'd, upon which the Heart beats with a stronger Impulse, and Respiration is more laboriously perform'd; which Essects may cause a greater Resolution of the Juices, not any way depending on the Dose of the Opiate, but only on the Sleep arising from that Dose.

That opiate Medicines retard the Of its Effects Motion of the Juices, slacken the in phlegmatick Constitutions. Secretions, and infer a Languor upon all the Organs, is evident from their Effects, generally observable in gross, corpulent

Con-

Part III. Constitutions, or Bodies subject to humoral Coughs, Asthma's, &c. in which Cases, when unskilfully directed, they often thicken the Juices to that Degree, as to be attended with Effects most fatally preternatural. These Consequences ensue, by its locking up the Humours on the bronchial Glands, and thereupon choaking the Patient.

From these Observations on its known Effects, and Qualities, it naturally follows, that as much depends on the different Texture of human Bodies, as any Motions in the Corpuscles that compose that Remedy: And this appears evidently clear, from the contrary Effects it often produces in different Constitutions, and in the same Constitution at different Times.

I HAVE known a well-adapted Dose of Opium, or its Preparation, cause sweet Slumbers, and agreeable Rest, to some, and continual Wakefulness to others, a Light-headedness to a third. This same Remedy has caus'd Sleep at one Time, Wakefulness at another, and

state the Opinic, but only on the

a Delirium the third Night, in the same CHAP. 5. Person. These Changes could not happen from any Alterations in the Corpufcles of the Opium, which are always the same, but from an Alteration in the Motions of the Solids and Fluids, which greatly vary in different Constitutions, and often are different, at divers Times, in the same Individual labouring under the fame Difeases.

THE Necessity of Opiates appears most whence the conspicuous, in those sharp, cholicky Necessity of its Operation Pains, that frequently attend hysterick is indicated. Women under Fits of the Vapours; they are also equally necessary to quiet the excessive Disorders of the animal Spirits, when the Patient lies whole Nights and Days without the least Inclination to flumber. In these Cases they act by fuspending the Motions of the nervous Fibres; this Suspension arises from the Machinula of these Fibres being generally set at too great a Distance from each other; whereby the Impressions of those painful Sensations cannot reach the Seat of the common Sensorium.

PARTIII. To conclude; From the foregoing Reasonings on this Subject, it clearly appears, that the Operation of Opiate, as well as all other Remedies, are relative to the Constitution of animal Bodies, which is the Reason why their Effects are widely different, according to the natural, different State of the Body, according to the different Disease the Patient labours under, and according to the Advances that Disease has made on the Constitution; all which Particulars, mightily vary the Operation of this most excellent Remedy. So that it always demands the Assistance of a skilful Physician to prescribe it with Safety to the Patient.

Of Wine, and its Influence on human Bodies.

IF ever a Cordial is necessary, if ever it is allowable for Men to intermit their Cares, by chearing the Spirits with a Glass of generous Wine, no Time can be more seasonable, than That wherein the Mind is oppress'd with Grief, Anxiety, and almost overcome with Despair. Wine, therefore, is not only permittable in the Spleen, but the Patient is often to be call'd upon to relax his Mind, from his more intense Thoughts, loosen

loosen his Cares, and soften his more CHAP. 5. gloomy, melancholy Hours, with a flowing Glass of this most generous Cordial. How it comes to have this Influence over human Nature, may be worth our while here to examine.

WINE consists of a certain Portion of fulphurous Spirits disfolved in a pretty large Quantity of tartarous Phlegm, and is in its Action contrary to the Operation of Opium, tho' their Effects be pretty nearly the same: For whereas opiate Preparations relax the Brain and Nerves, already too much relax'd, and lets down the Machinula of their Fibres beneath their Capacity of Sensation; Wine, on the contrary, if taken in a large Dose, contracts the foregoing Instruments, and purses up their too lax Machinula, whereby the Fibres are incapable of conveying those active Senfations to the Brain and Seat of the common Sensorium: However, both Wine and Opium intercept the Sensations, and infera Stupor upon all the animal Faculties.

In short, I am not at all surpriz'd at those extravagant Encomiums that the

Poets

Part III. Poets generally compliment this most exhilerating Juice with; because it is a most
fovereign Solace against the most gloomy
Scenes and Miseries of Life: It is before Opium, and all the other Remedies
ever yet discover'd to Mankind; and
will perform every thing that Opium can
do, and more effectually, if the Dose is
but large enough, often repeated, and
the Patient was not too indulgent in its
excessive Use before.

Bur this I must observe, that, like all other Remedies of excellent Efficacy, if indifcreetly us'd, it becomes pernicious, and fometimes fatal, in its Effects; but then is not Opium attended with the same dangerous Consequences? Prosper Alpinus relates of Opium, that those that accustom themselves to its liberal Use, appear always drunken, fottish, and comatose; they are stupid, inconstant, and so light in Temper, that few People care to converse with them: All of which Effects, are plainly visible in Wine, when indulg'd to Extreams. So that Wine, rightly adapted to the peculiar Genius and Temperament of the Patient, is one

of the most generous Remedies that can Chap. 5. be administer'd under the Spleen, Vapours, and Hypochondriack Melancholy. For as, in these Disorders, the Nerves are let down beneath their natural Standard, so it braces their over-lax Texture, screws up their Fibres, and brings their Machinulæ into closer Contacts with each other, whereby the Mind acts with greater Steadiness, Resolution, and Vigour.



CHAP. VI.

Of the Cure of the Spleen.

Paring in the foregoing Chapter proceeded to lay before the Reader several practical Observations concerning the Operation of divers Medicines, I shall now go on to make the particular Application of those practical Observations, to the several Stages of the Spleen, Vapours, and Hypochondriack Melancholy.

PARTIII. THE Physician therefore, when he goes upon the Cure of the Spleen, ought to be highly careful, that he duly weigh all the present impending Symptoms, the Degrees of the Disease, and the Advances it has made; and if upon Enquiry he perceives it only a Beginning, his Task will be fo much the less difficult: For nothing is more easy than to relieve the Spleen in its first Beginning, nothing more hard than to cure it when c on firm'

Of the parti-cular Indications of Cure. THE Indications of Cure, therefore, will be very different in different Habits; which again will vary mightily, according to the different Cause that struck the Disease upon the Organs, according to the different Parts of the Body it is feated in, and according to the Advances it has made upon the Constitution.

Now, as the Machinula of the Fibres are always relax'd under the Spleen, whereby their Actions and Sensations are impair'd, it necessarily follows, that in order to restore these impair'd Organs, we must endeayour to restore the proper

Elaf-

Elasticity of the Fibres, which will de- CHAP. 6. mand the several Indications following.

First, To take care to discharge the Body of those gross Humours, that, thro a Languidness in the secretory Glands, are lodg'd upon the Fibres. Secondly, To resolve the Obstructions of the Spirits, Nerves, and circulating Fluids. And lastly, To restore the impair'd Tone of the Brain and several Organs, whereby the intellectual Faculties may act with Steadiness, Resolution, and Vigour.

As to the first curative Indication, it The first cuis a Point that deserves very great Consideration. deration; for the Evacuations must vary, as I observed before, according to the different Temperature of the Solids. If the Patient be of a hot, biliose Constitution, I generally advise him to lose ten Ounces of Blood; which Discharge gives a greater Freedom for the remaining Quantity to play.

AFTER Bleeding, if the Body be very costive, I prescribe the following Gly-ster.

PARTIII. R. Decost. Com. pro Enemat. 3xii. Mel. Violar. Zii. Elect. Lenit. Ziß, Sal. Gem. 3iii. m. f. Enema.

> AFTER which, he may, the next Morning, take the following purging Draught.

R. Fol. Sen. 3iii. Rhabarb. 3B, Sem. Fænic. dulc. 3i. Cog. in Ag. Font. 3vi. ad 3iii. Col. cui adde Man, opt. 3iß, Aq. Pcon, C. 3\\Beta, m. f. Hauft.

Bur if the Patient be of a phlegmatick Constitution, that is, if his Solids be less elastick, or springy, which is always discoverable from the Beating of the. Pulse, and other concurring Symptoms, that affect the Habit, I then omit Bleeding, and instead of Purging, prescribe the following Vomit.

R Rad. Ipocacuban. Di. Aq. Latt. Alex. ξiβ, Oximel. Scillit. Zi. Ag. Peon. C. 3β, m. f. Hauft. capt. Hora 4ta, vel 6ta, vefperi superbib. copiose seri lactis vin. canarin. alterati.

AND, to compose his Spirits, after the Operation is over, I generally prescribe the following Powder and Draught.

R

R. Pulv. e Chel. 69. C. Ji. Croc. Pulv. Sal. CHAP. 6. vol. Succin. ana gr. iii. m. f. pulv. capt. hora Som, superbibend. Hauft. seq.

R. Aq. Ceras. Nig. 3iß, Aq. Peon. C. 3i. Syr. Crocin. 3iii. Laud. Liq.gutt. xx.m. f. Haust.

But if Bleeding be judg'd absolutely necessary from the Heaviness of the Head, and a Stupor upon the Brain, which do not give way upon the Administration of the foregoing Vomit, nor that repeated; I then immediately order Blood to be extracted by cupping with Scarrification, which often gives great Relief under this Symptom: And if the Spirits flag, let a good Blister be apply'd between the Shoulders. These are Discharges absolutely necessary, where we would succeed in a Cure supported upon rational Principles.

In relation to the second curative In- Of the second dication, as the Cohesions of the Blood curative Indiand other Juices, in the Beginning of the Spleen, are only forming themselves upon the Habit, so simple, easy Medicines will be sufficient to remove their Obstructions. Small Quantities of Steel joyn'd

PART III. join'd with Aromaticks, in Conjunction with Blifters, will answer the End of a Cure much better, than a pompous Shew of doing a great deal more than is really necessary, much of which is often nothing to the Purpose; for where Nature is very much funk, and the Solids depress'd beneath their natural Standard, there the Phyfician is to affift her, in reducing these several Organs within their proper Sphere of Action again; and he is the only Person capable of judging how much they are depress'd, and what Force will be necessary to restore them again to their proper Standard. These several Parts he may eafily learn, both from the impending Symptoms, the Complaints of the Patient, and the Appearance of Things as they are conducted in the Animal OEconomy; and as the Stomach is the first Bowel that generally suffers under the Spleen, so great Regard must always be paid to those Medicines that affift in restoring the impaired Force of its Fibres.

> R. Conferv. Abfinth. Rom. 3i. Flav. Aurant 3vi. Pulv. Ari Comp. 3iii. Spec. Diamb.

Syr. Papav. erratic. m. Elect. capt. quant. Nuc. jugland. omni Mane hora 4ta, Pomerid. & hora Som. superb. Haust. seq.

Re Absinth. Roman. M.i. Summit. Abrotan. 3ii. sem. Cardamom. minor. Coriand. ana 3iβ, Rad. Gent. 3i. Coq. in Aq. Font. tbi. ad ξxii. Colat.

R. Colatur. Zii. Vin. Chalyb. Zii. Aq. Peon. C. ZB, m. f. Hauft.

I ALWAYS at Night take care to secure the Tranquility of the Spirits by gentle Opiates; because the Patient, under the Spleen, is very apt to be affected with Wakefulness.

R. Aq. Lact. ξiβ, Aq. Peon. C. ξβ, Spt. Lavend. compt. 3i. Syr. & Mecon. ξi. m. f. Hauft. capt. omni Nocte Hora som. vel,

R Extract. Thebaic.gr. iß, Theriac. Androm. Di. m. f. Bol. capt. hora som. cum Haust. Aq. Font. & vin. alb. mont. ana part. equal.

This Method of treating the Patient, I find always to answer in the Beginning of the Spleen, and while the Disease is recent; but when it has been of any Part III. confiderable Standing, and the Solids are greatly impair'd, I find it then necessary to employ more considerable Forces, in order to overcome the Stubbornness of some splenetick Symptoms. In this Case I generally find great Relief given from the following Medicines, especially if the Patient be of a dull, heavy, phlegmatick Constitution.

- R. Calomel. Di. extract. Rud. Pill. Coch. minor. ana gr. xvi. ol. Fænic. dulc. gtt. i. f. Pill. N°. 5. capt. Mane cum regimine & repet. pro re nata.
- R. Aq. Cerasor. Nig. ξiβ, Aq. Peon. C. ξi. Laud. Lond. gr. iiβ, Spt. Sal. vol. ol. gtt. xx. Syr. Garioph. ζiii. m. f. Haust. capt. hora som.
- R. Conserv. Anthos 3i. Cochlear. Hort. 3vi. Cinnab. Nativ. 3β, Flor. Sulph. 3iβ, Specierdiambr. sine od. 3iβ, cum q. s. Syr. de Chalyb. m. Elect. Molle capt. Quant. Nuc. Moschat. horis tribus medicinalibus superbib. Cochlear. 5. seq.
- R. Aq. Cerasor. Nig. zvi. Aq. Peon. compt. Raphan.compt.ana ziii. Syr. de 5 que Radicibus ziβ, Spt. Nitr. dulc. zii. m.f. Julap.

WHEN the Spleen arises from a Sup- CHAP. 6. pression of the Hemorrhoides, vulgarly call'd the Piles, or any other customary Evacuation, we must by all Means endeayour to recover that Discharge. In this Case, I know nothing that gives more immediate Relief, than Leaches apply'd to the hemorrhoidal Veins, which quickly dispose them to a plentiful Running; and this more especially happens, if the Patient fits over a Vessel of warm Water; and as the Fœces of the Bowels are generally hard, and the Body costive, fo the following will be admirably proper, both to relax the Intestines, soften the Excrements, and give them an eafy Discharge in soft, figur'd Stools.

R. Ol. Amigd. dulc. Ziiβ, Syr. Violar. Zii. Flor. Sulph. Zii. m. f. Linet. capt. Cochleare i. 6ta, quaque hora vel.

Re Extract. Cassiæ ξiβ, Calomel. Điβ, ol. Anis. gt. iii. Crem. Tart. ξβ, m. Elect. capt. Quantitat. Nuc. Moschat. ter in septimana superbib. tbβ, seri Lactis.

HITHERTO we have pursu'd those cu- Of the last currative Indications, that serve to clear the tion.

B b 2

first

PARTIII. first Passages, to resolve the Obstructions that clog the Wheels of the circulating Fluids, and restore the impair'd Force of the arterial Solids.

THE next Point, that comes under Consideration, is, to discover how we may safely resolve the Obstructions of the Brain, and restore its Fibres, whereby the intellectual Faculties will be enabled to act with Steadiness, Resolution, and Vigour.

In this Case, I know nothing preferable to the following Prescription.

R. Gum. Ammoniac. 3ii. Caftor. Ruf. Specier. Diamb. fine od. ana 3i. Milleped. pptt. Sal. Vol. fuccin. ana 3ii. Croc. Pulv. 3β, Balf. Peru. gt. xx. cum q. f. Syr. de Chalyb. m. f. Pill. è 3i. N°. x. capt. 3, vel 4, mane & hora fom. fuperbib. Cochlear. 6. feq.

R. Vin. Viperin. tbi. Spt. Sal. Armoniac. 3iß, m. Julap.

THESE Medicines not only resolve the Obstructions, that embarrass the Fibres that

that compose the whole System of the CHAP. 6. Brain, but they scower its Glands of those viscid Corpuscles, that stick in their Orifices, and render the Secretions of the Spirits slower, than is consistent with a regular Motion.

As foon as the Patient is recover'd in some measure from his Pressure, I always advise him to drink either the Bath Waters, the Spaw Waters, or the Piermont Waters; these must be regulated according to the different Constitutions we have to deal with. In some Cases, I preser a Course of the chalibeat Waters of Tunbridge, Islington, or Hampstead, before them all; especially if the Constitution be highly scorbutick, which, if he is regular in his Exercise and Manner of Diet, will mightily avail in confirming a found Habit of both Body and Mind.

Of the Cure of the Vapours and Hysterick Fits.

O cure the Vapours, is to prevent the Return of the Fits; and as this Disease is most incident to affect the fair Sex, fo I shall consider the peculiar Indications most proper to relieve its Symptoms in Women labouring under their Tyranny. I know that in appealing the Symptoms of the hysterick Paroxism, especially in the struggling Fits, a great many Remedies are generally recom-Aruggling Fits, mended by the By-Standers; fuch as strict and painful Ligatures to divers Parts of the Body, the violent opening the Hands,

twisting or twining of the Fingers, hold-

ing stinking Things to the Nose, &c.

whereby they endeavour to facilitate the

Periods of the Fits. But I must con-

fess, I never could perceive the least Be-

nesit from these antiquated Fooleries:

nor is it possible there shou'd; for the

Fits being excited to fling off a Load

oppressive to the Constitution, how is it

possible to relieve the Fits before Nature

mediate

has done her Work, in removing the im-

How to manage the Patient in the

mediate Causes. All, that, in these Ca-Chap. 7. ses ought to be done, is, to take care the Motions of her Limbs be so manag'd, that she do not injure herself with the Violence of her Struggles; for what Occasion is there for prescribing of Medicines, when the Fits will be over in a short Time of themselves.

As foon as ever the least Remission offers, I always prescribe the following

Re Aq. Font. tbβ, Syr. Violar. Zi. Laud. Liquid. gtt. xx, Spt. Vitriol. gtt. xxv. m. f. Hauft. quamprimum propinandus.

In the Cure we ought to vary the Prescription, according to the different Constitution of the Patient, and the different Parts affected. If the Disease arises from Obstructions of the Womb, which indicate the Fibres of the Matrix, too weak to help forwards the menstrual Discharge; and if a Plethora appear in the Vessels, twitching Pains affect the Head, a Swimming, Giddiness, and on ther Symptoms, the Brain, sure Attendants on Obstructions; I think it will

PART III. not be improper if the Patient lose ten or twelve Ounces of Blood, which will take off from the Fulness of the Vessels, whereby there will be more Room for the remaining Quantity to play, upon which it will excite a confiderable greater Impulse in its Descent upon the obstructed Vessels of the Matrix, in order to give a Freedom to the menstrual Difcharge.

> AND here I think proper, once for all, to observe, that Bleeding in all splenetick Difeases, is as much to be determin'd from the particular Indications of the Constitution, as any inseparable Symptoms of the Disease.

> AFTER Bleeding, if the Patient be fubject to Reachings, I think it not improper to prescribe a Vomit, in order to diflodge the Stomach of those phlegmatick Humours, the Cause of Indigestion: But this I must observe, that the Physician should be highly careful that none but those of the mildest Operation be given to Women of weakly Constitutions. For my own Part, I never venture further than the Indian Root Oximel Scil. or Sal. Vitriol. as the gentlest

gentlest of this Class of Medicines; and CHAP. 7. these I often order to be repeated at proper Intervals, as Occasion requires, with happy Success.

But if Vomits are judg'd unsafe Medicines, from any Contra-indications, we must then attempt to discharge this Load of Phlegm by Laxatives, that may clear the first Passages of those vitious Contents.

R Tinet. Sacr. Ziiß, Syr. de Spin. Cervin. 3ß, Sal. Vol. ol. gtt. xx. m. f. Hauft.

This Draught thus circumstantiated, helps to move off those sluggish Humours that by a colder Purge would scarce be effected; and in hot and dry Habits we have Medicines that are cold and stimulating, or at least produce those Effects, in order to assist the Contraction of the Solids to discharge these Humours. Of these kind of Medicines are the Epposition Salts, and purging Waters.

AFTER we have proceeded thus far, we must go on to affist the circulating Fluids with chalibeat Preparations.

PARTIII. R. Conserv. Flav. Aurant. Nuc. Moschat. Cond. Citr. cond. ana 3vi. Spec. Diamb. fine od. 3iß, Chel. Canc. pptt. oc. canc. pptt. ana 3iß, Chalyb. simpliciter pptt. 3iii. cum q. f. Syr. è Cortic. Citr. m. Elect. Molle capt. Quantitat. nuc. Moschat. 3bus boris medicinalibus, superbib. Cochlear. 4. seq.

> R. Ag. Cerafor. Nig. Ziv. Ag. Puleg. Zii. Aq. Hysteric. Ziiß, Tinet. Castor. Ziii. Sachar. Albis. 3ii. m. f. Julap.

> R. Ag. Ceraf. Nig. 3ii. Ag. Bryon. compt. 3ii. Syr. è Mecon. 3i. Spt. Lavend. C.3i. m. f. Hauft. capt. omni Noct. bora som.

> Applic. Emplast. Epispast. amplum & Acre Nuchæ duo alia internis Brachiis totidem internis cruribus spatio intermi//0.

AND then to relieve and strengthen the Brain, I would advise the following.

R Galban. Col. 3iß, Affæ fætid. 3i. Rad. Zedoar. Dii. Sal. Vol. suc. 3B, Bals. Peru Di. cum q. s. Syr. de Chalyb. m. Pill. capt. 4tr. vel 5que, Mane & Hora som. cum Cochlear. 4tr. Alicujus 7ulapo

But here I must beg Leave to ob- CHAP. 7. serve, that volatile Salts and Spirits, in many Cases of convulsive Diseases, are very improper Remedies. They are fo in all biliofe Conftitutions, where the Nerves, through an over-great Contraction of their Machinula, are naturally fo eager, that the least sudden Surprize, Impulse, or Passion, shall readily dispose them to Spasms, Tremors, or hysterick Fits. And as these Disorders arise from the Machinula of the Fibres, being naturally too much purs'd up; fo thefe Salts, instead of allaying, very often increase those Startings and irregular Motions of the Muscles and Tendons, through their excessive Heat, and stimulating Qualities. They best agree in gross, corpulent Women, in heavy, phlegmatick Constitutions, where the Blood moves flowly in the Vessels, its Corpuscles are extremely viscid, and strongly attracted to each other; and for this Reason these Salts are highly ferviceable in palfical Affections, where the Sensations and Motions of the feyeral Members are in fome measure deaden'd, and want informing from a Course of generous Medicines.

Part III. If, notwithstanding all that has been done, the Fits return, we must have recourse to the Cortex Peru, upon the next Intermission; and I have known great Relief given from the following.

Re Conserv. Rut. Zi. Conserv. Anth. ZB, Cortic. Peru zvi. Cortic. Winter. ziii. cum q. s. Syr. Garioph. m. Elect. capt. Quant. Nuc. Jugland. 6ta, quaque hora superbib. Haust. seq.

R. Cortic. Peru 3β, flor. Chamomel. M.i. Cochinel. 3iβ, coq. in Aq. Font. tbiβ, ad 3xii. col.

R. Col. zii. Vin. Chalyb. ziii. Spt. Lavend. C. zi, m. f. Haust.

Of the Manage- These are the most sovereign Remement in the painful Fits. dies I can think proper in this Case.

Bur not so must we attack those hysterick Fits attended with great Pains; these demand immediate Assistance, and Opiates will afford the most sovereign Relief under these Circumstances.

In that most inexpressible Torture, call'd the hysterick Cholick, I have known

known the following give immediate Re-CHAP. 7. lief.

Mit. Sang. è Brachio ad Zxii. quampri-

R. Pill. ex. 2bus, gr. xxvi. Calomel. Ji. Ol. Garioph. gtt. vi. Extract. Thebaic. gr. iii. m. f. Pill. capt. quamprimum superbib. Haust. seq.

R. Aq. Puleg. Zi. Aq. Peon. C. zvi. Tinet. Croc. Zii. Syr. Balfam. Ziii. m. f. bauft.

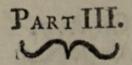
In some Cases, where this most insufferable Pain has been lodg'd in the Crown of the Head, I have known the following, to bathe the Temples, of great Efficacy,

R. Spt. Lavend. C. ziβ, Spt. Sal. Armon. 3β, Spt. Vin. Campborat. zß. m. f.mixt,

AND immediately, to relieve the Brain and Parts affected, administer the following.

R Camphor. Ji. Confect. Rhaleian. Jiß, Laud. Lond. gr. iii. m. f. Bol. capt. quamprimum superbib. Haust. Julap. seq.

R



PART III. R. Aq. Ceraf. Nig. 3vi. Aq. Bryon. C. Biii. Marg. pptt. 3iβ, Sachar. Albiff. 3iii. Sal. vol. ol. 3i. m. f. Julap, capt. Cochlear. iv. cum Bol. in Languoribus.

> Applic. Emplast. Epispastic. amplum & Acre Nuchæ & duo alia pone Aures.

AND in case the Pain remit not, let Leaches be apply'd to the Veins, as near the Parts affected as possible; and sometimes Cupping with Scarification avails very much.

But all other Means failing, and the Pains continuing obstinately violent, against the Efforts of the most generous Medicines, we must have recourse to Arteriotomy in the temporal Artery, the opening of which, has been experienc'd to give great Relief in the extremest Cases of Pain.

AND thus I have given the Reader a fuccinct Account of all that is necesfary to be done in the hysterick Paroxism, as well when the Fits are attended with violent Motions, as in those that are subject to the most acute Pains.

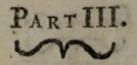
Bur

But in the still Fits, where all the CHAP. 7. Parts are convuls'd, unattended with In the still Fits. Strugglings, we are to confider, that in this Case all the Fluids move more flowly in the Vessels, and that therefore we are to endeavour to facilitate their impair'd Contractions, in order to restore their Motions. In this Case, as these Fits generally arise from some violent Passion, that originally gave a Shock to the Constitution of the Nerves, so the Cure will be extremely difficult, and nothing but Time will be able entirely to eradicate the Disease. However, Methods must be try'd; and among all the Remedies generally us'd, I know nothing equal to the following, both to lessen the Fits, and cure the Disease.

Re Elix. Salut. Tinct. Sacr. ana ξiβ, Syr. de Spin. Cervin. ξβ, m. f. Hanst. capt. Mane cum Regimine.

Re Assa fætid. 3iii. Sal. Vol. Armon. 3i. Croc Pulv. 3\beta, m. f. Pill. \(\delta\) 3i. No. xii. capt. 4. hora som.

R. Conserv. Rut. Ziß, Chalyb. simpliciter pptt. Theriac. Androm. ana Zß, Sal. Absinth. Zii. cum q. s. Syr. Artimesiæ



m. Elect. capt. Quant. Nuc. Moschat. omini Mane, 2bus Horis ante Prandium & Hora 4. Pomerid. superbib. Cochlear. 6, Infus. seq.

Re Decoct. Amar. Simp. Zxii. Aq. Peon. compt. Ziii. Spt. Lavend. C. Zβ, m.f. Infusio.

R. Aq. Cerasor. Nig. Ziß, Aq. Peon. C. Zi. Extract. Thebaic. gr. ii. Syr. Papaver. erratic. Ziii. m. f. Haust. capt. hora som. cum 4. Pill. prescript.

Bur, in the Administration of all chalibeat Medicines, we ought to be highly careful, that we do not oblige Nature to over-act her Part; for I have known feveral Instances, where the stagnating Juices have been flung upon the Veins of the Thighs, and fwell'd those Parts to a furprizing Bigness: In this Case, it will be fafest to discharge the superfluous Humours by Stool; sometimes a gentle Vomit, feafonably administer'd, has refolved these Obstructions, where no other Remedies would prevail: But this Method is only to be attempted in some fingular Circumstances, and in particular Constitutions, lest the Force of a Vomit should

should recal these Humours into the Ha-CHAP. 7. bit again, and fix them upon some principal Organ, to the Endangering of the Patient's Life; and therefore ought not to be put in Practice without very good Advice.

AFTER the Obstructions are resolv'd, it will be highly necessary, that the Patient go through a Course of the chalibeat Waters, to restore the impair'd Contraction of the Solids; or, if she be of a biliose Constitution, and extremely weaken'd through the Severity of the Disease, let her take the Ass's Milk, with the testacious Powders, for a Month or six Weeks, and after that Course is ended, drink the Bath Waters; which Method, seldom sails to compleat a successful Cure.

PART III.

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CHAP. VIII.

Of the Cure of the Hypochondriack Melancholy.

UT, in the Hypochondriack Me-Iancholy, where the Changes in the Motions of the Fibres change the Ideas of the Mind, and affect its Faculties with odd, ridiculous, and unufual Turns of Thinking; as that the Body is chang'd into a Cat, a Dog, a Horse, &c. there we must employ more powerful Remedies, if ever we expect to compleat a fuccessful Cure, and render the Faculties entirely free from these Embarrassments. And as the Cohesions of the Blood and animal Fluids are strongly inclin'd to each other, and the Obstructions firmly wedg'd upon the Habit, so they call for Medicines more powerful in their Operation, and that may give a greater Turn to the Disease: For this End, Vomits of mineral Preparations greatly avail in removing

moving that Load of viscid, glewy Hu-Chap. 8. mour, that lies impacted in the Fibres of the Brain, and chains down the noble Faculties of the Soul to this gloomy Way of Thinking.

R. Vin. Benedict. Zi. ad 3x. m. Hauft. propinandus bora 4ta, Pomerid.

Applic. Emplast. Epispastic. inter Scapulas bora som.

And as the Spleen and lower Bowels are generally affected with Obstructions, when the Disease arises to this height, so in such Cases I prefer the following cordial Purge, to all others.

R. Tinet. Sacr. Rhabar. ana ziß, Syr. de Spin. Cervin. zvi. Spt. Lavend. C. zi. m. f. Hauft.

OR if the Patient rather affect his Medicines in Form of Pills, the following.

R. Pill. Ruff. Dii. Resin. Jalap. gr. viii.
Sal. Vol. Succin. gr. iv. ol. Garioph.
gutt. iii. m. f. Pill.

PARTIII. If there appear any Symptoms of a Plethora, let the Patient lose ten, twelve, or fourteen Ounces of Blood. These Symptoms of Fulness are not to be difcover'd from the Appearance of Blood in the Veins; for they are generally large and swell'd with Wind; but from the Beating of the Pulse, which for the most part discovers, with the greatest Certainty, the Quantity of Blood in the Veffels.

> THINGS thus dispos'd, we may then proceed to unlock the Obstructions, that oppress the Organs of the Brain.

Re Affie fatid. 3iß, Pulv. rad. Zedoar. 3i. Croc. Pulv. 3\\\\sigma, ol. Suc. gutt. xx. Syr. de Chalyb. q. s. m. f. Pill. capt. 4tr. ter in Die superbib. Cochlear. 5. Infus. Seq.

Re Summit. Abrotan. 3B, Flor. Anthos 3ii. Sem. Cardamom. minor. 3i. Rad. Gent. Dii. Coq. in Ag. Font. thi. ad 3xii. Col. cui adde Vin. Chalyb. 3iv. m. f. Infus.

Of the Virtues

ASSA fætida, of all other Gums, of Assa foetida. produces the most powerful Effects in the Hypochondriack Melancholy, and is greatly preferable to either the Galba-

num Ammoniacum, or Sagapenum. It re-CHAP. 8. folves the Obstructions of the Brain, and by its powerful, penetrating, volatile Parts, enters those Pores of the Fibres, that very few other active Medicines are capable of affecting; for your volatile Salts foon evaporate, and go off by fome of the Emunctories, before they penetrate into the Recesses of the Nerves; while this Gum, by its adhesive Quality, keeps its Parts more compactly together, and fuffers not its Virtues fo foon to exhale.

IF there be any Suspicion of a schirrose Tumour, in the Spleen, Liver, or Organs of the inferior Bowels, the following will be admirably proper, both to resolve the Obstructions of the schirrose Matter, and to prevent the Juices from running into too close Contacts for the future.

R Calomel. gr. xvi. ad Di. Confect. Fracaftor. fine Melle Di. m. f. Bol, bora som. Sumendus.

Re Mannæ opt. dissolut. in Aq. Epsom. 3iß, m. capt. Mane crastino.

Bibat

Of the Spleen, Vapours, and 390

PARTIII. Bibat ejusdem Aquæ ad Quantitat. thii. parum cost. in Tempore Operationis.

> R. Conserv. Rosar. 3iß, Æthiop. mineral. 3B, Camphor. 3iB. Sal. vol. Armon. 3B, cum q. f. Syr. Sambuc. M. Elect. capt. Quantitat. Nuc. Moschat. Mane singulo, bora 4ta, Pomerid. & bora Som. superbib. tbß, Apozem. Seq.

R Lig. Sanct. Antimon. crud. in Nod. ligat. anaths, Sarzaparil. 3iii. Rub. Tinet. 3i. Rad. Glycer. 3vi. 5que, Radic. Aperien. ana 3\beta, Coq. in Aq. Font. thvi. ad thiii. cui adde Spt. Nitr. Dulc. 3iii. m. Apozem.

R Galb. Col. emplast. de Ran. cum Mercur. ana part. equal. m. emplast. Sinistræ Hypochondriæ Applicandum.

AND to restore the impair'd Force of the Stomach, he may take the following Elixir in a Glass of generous Wine.

R Elix. Vitriol. Mynsiet. 38, capt. gutt. xii. vel xvi. ter in die in Hauft. Vin. albi Mont.

As foon as he perceives his Difease upon the Decline, it will be highly pro-

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per for him to try the Effects of the CHAP. 8. Cold Bath, which, in all splenetick and hypochondriack Cases, not attended with schirrose Tumours, I look upon to be a Remedy second to none; for it purses up the over-lax Machinulæ of the Fibres, restores their impair'd Contractions, and by that Means revives the Action of the several Organs.

In the mean Time, the Patient must be very careful of his Diet, of the Air, and Exercise, especially Riding; which I prefer to any we use in England: For it may be intended or remitted to what Pace or Degree you please; and the numberless Concussions, in this Case, successively coming upon each other, must greatly contribute towards resolving the Obstructions of the Brain, and other Organs of the Habit, that vitiate the Sensations, and interrupt the Ideas of Objects, from making suitable Impressions upon the Mind and Faculties of the Understanding.



CHAP. IX.

Of the Cure of Melancholy Madness.

THIS is that most gloomy Scene to which all splenetick Symptoms tend, that are not timely prevented by proper Applications. The Mind under this Species of Madness appears often as if it were moap'd, or stupid, being fearful to the last Degree of Desipair.

I know it is the Opinion of some, that remove the Passion that gave the first Shock to the intellectual Faculties, and the Essects will cease: But in this they are greatly mistaken; for I am my self acquainted with a Gentleman who had one only Daughter, that was melancholy mad for Love of a young Gentleman: Her Father, by Advice of Friends, was prevail'd on to admit him to marry her, in Hopes of her Recovery; because though she talk'd greatly out of the

way, yet was she always much better CHAP. 9. in his Presence. But Marriage did not abate the Lunacy, nor remove the Impediment of her Brain; for she attempted feveral Times to murder him: So that at last they were oblig'd to confine her to a Mad-House, for fear of further Mischief.

AND, by the Way, this is as strong an Impossible to Argument, as can be given to prove, work upon those Persons that these Disorders are more dependant by Advice or on the perverted Motion of the Fibres of the Brain, than any absolute Stubbornness of the Mind; and you may as foon attempt to counsel a Man out of the most violent Fever, as endeavour to work any Alteration in their Faculties by the Impressions of Sound, tho' never so eloquently apply'd; till by proper Applications you have remov'd the Pressure of the corporeal Organs.

Now in order to restore the Fibres of the Brain under the Melancholy Madness, and recover the Mind from those most gloomy, dejecting Circumstances, to which it is chain'd during the Force of their Machinulæ into closer Contacts with each other; that is, restore their Springyness, or contractile Powers, whereby the Ideas of sensible Objects may strike the Emporium of the Brain, or Seat of the Mind, with a regular Impulse; and in order to effect these several Intentions, it will be necessary to prescribe all manner of Remedies that may communicate a Stimulus to the Solids.

BLEEDING, therefore, in this Case, will be but of very little Use, unless it be to add a greater Motion to the Fluids, in some Cases, where the Blood is crowded upon some particular Organ.

But vomiting Medicines are of singular Service; as they not only discharge the Stomach of its vitious Contents, but as they unload the Brain of that glewy, viscid Matter, greatly tenacious, that obstructs its Pores, and hinders a due Secretion of animal Spirits.

THE Vomits that are administer'd, ought to be of the harsher Kind, otherwise they will scarce influence this Kind

ot

of Melancholy; because the Nerves are CHAP. 9. greatly let down beneath their natural Standard, and, in consequence of that, all the Senfations, as well as Secretions, vitiated to a furprizing Degree.

R. Suc. Fol. Afari 3B, ad 3vi. vel 3i. Ag. Peon. C. 3iii. m. f. Hauft. Vomit. capt. bora 4ta, Pomerid. Vel,

R. Vin. Benedict. Zi. ad 3x. m. Hauft.

PURGING Medicines of Black Hellebore, are mightily extoll'd.

R. Hellebor. Nig. crasuscule pulver. 3iß, Sem. Fænic, dulc. 3iii. Coq. in vin. alb. 3xii. ad Zix. Col.

R. Colaturæ Ziii. Syr. de Spin. Cervin. 38, ad Zi, Aq. Peon. C. 3B, Spt. Lavend. C. 3i. m. f. Hauft. capt. Mane.

If, by the Force of the Operation, the Spirits be very languid, we must have recourse to Opiates at the Time of Reft.

R. Aq. Ceras. Nig. Aq. Theriac. ana Ziß, Syr. è Mecon. 38, Extract. Thebaic.gr. iiß, m. f. Hauft, bora som. Sumendus.

AND

PART III.

AND as Blisters both stimulate the Solids, and raise the Spirits, so upon no Account are they to be omitted.

Issues, sometimes, cut on the Nape of the Neck, profit very much.

Re Assa fætid. 3iii. Sal. vol. Armon. Camphor. ana 3iß, Bals. Peru gutt. xx. Rad. Zedoar. 3i. cum q. s. Syr. de Chalyb.m.f. Pill. capt. 4ta. Mane, hora 4ta Pomerid. & hora som. superbib. Cochlear. 6. seq.

Re Ellebor. Nig. ziß. Flor. Chamomel. M.i. Rad. Gent. zi. Sem. Cardamom. minor. zi. Coq. in Aq. Font. q. s. ad zx. col. cui adde Vin. Chalyb. Aq. Peon. C. ana ziii. Spt. Lavend. C. zß, m.f. Infus.

Of the Virtues of Camphire.

CAMPHIRE, of all other Remedies, has the greatest Force upon this Kind of Madness: For as the Fibres of the Brain are greatly relax'd, and let down beneath their natural Standard, so is it necessary, that we procure a Set of Medicines that may pass the minutest Pores;

And no Remedy in the Universe is known CHAP. 9. to divide farther than Camphire, which consists wholly of volatile Parts, and will in Time all sly away, if expos'd to the Air.

Now as this Disease is generally attended with too great a Moisture in the Brain, so will it not only pass, not only dry up that superstuous Moisture, by its warming, heating, attenuating Qualities, but also restore the Texture of the Brain, or at least, which is the same Thing, those Fibres that compose this noble Organ.

Quantity of two Scruples, or half a Dram, at least, is of singular Service, and will pass those sinest Vessels, where sew other Remedies, of a grosser Texture, are cable of penetrating: Nor is there any Danger to be apprehended from this Quantity of Camphire; because the Fibres of the Brain, under this Disease, being depress'd in their Contractions, demand a Remedy, that, by its powerful Operation, may assist their Motions, and screw up their over-lax Texture to a due Standard.

When

Remody in the Liverie is known



When we have disengag'd that glewy viscid Matter, that disconcerts the Machinula of the Fibres, by proper Medicines that evacuate by Vomit, Stool, and the other Discharges of Nature, we must then proceed immediately to brace and restore the over-lax Solids with Meats and Drinks that comfort the Blood, enrich the Spirits, and enliven the noble Principles of Life; and therefore a moderate Degree of generous Wine, as it exhibitantes the Spirits, promotes Digestion, and facilitates the Blood's Circulation, should always be indulg'd to melancholy Perfons.

But, upon the Failure of all other Remedies, we must have recourse to the Cold Bath instituted in a particular Manner. In this Case, let the Patient be slung from a considerable Height into the Water; or let the Water fall from a considerable Height upon his Head, and Parts affected.

A very worthy Gentleman, on whose Fidelity I may safely rely, assur'd me,

that the manager Onera.

that he perfectly knew a Person that for CHAP. 9. feveral Years had been melancholy mad, who, in one of his frantick Fits, flung himselfout of a Window three Story high; but accidentally pitching upon a Draw-Well, he fell plum down into the Water, and being taken up, was perfectly recover'd to the Use of his Senses again. It was computed, he fell near thirty Fathom before he came to the Surface of the Water; and the Well was about fix Fathom deep under Water.



CHAP. X.

Of the Cure of Lunacy, or the Raging Madness.

CALL that kind of melancholy The Difference Madness, where Men rave in an ex-between Metravagant Manner; Lunacy; because it nels and Luis only the same Disease, improved in a hot, biliofe Constitution; that is, as in the former Cases of the Hypochondriack Melancholy, Natural Melancholy, and Re.

ligious

PARTIII. ligious Melancholy, the Machinula of the Fibres, that compose the Brain and Organs of the feveral Senses were difconcerted, and fet at too great a Diftance from each other; so, in this of Lunacy, their Springs are drawn too near each other, that is, their Fibres are too much under a convulfive State, or State of violent Contraction, and therefore will demand the Affistance of all Remedies, that may relax, supple, and bring down their Machinulæ to their natural Standard.

> Now, as in the former Cases, Bleeding, Purging, and Medicines of the harsher Operation, if too frequently us'd, were prejudicial to the Patient, so will it be absolutely impossible to give any considerable Turn to the Disease under these Circumstances, without instituting a Course of Medicines of the most violent Operation; and if that be not sufficient to bring down the Spirit of these Stubborn Persons, we must endeavour to reduce their artificial Strength by compulfive Methods.

Concerning the Administration of Chap. 10. Medicines in Lunacy or Madness, it is a Misfortune, that we seldom use those that are proportion'd to the Greatness of the Causes, and consequently that are capable of compleating a successful Cure; that is, those that are capable of making those Alterations in the Fibres of the Brain, necessary to procure a Freedom from those Affections, the Mind labours under during the Continuance of this Disease.

GIVE me Leave to say, that no Mancan have a tenderer, or more compassionate Concern for the Misery of Mankind than my self; yet it is Cruelty in the highest Degree, not to be bold in the Administration of Medicines, when the Nature of the Disease absolutely demands the Assistance of a powerful Remedy, and more especially in Cases where there can be no Relief without it.

It is owing to these safe Men, that do but little Good, and a great deal of real Mischief, that chronick Diseases are so rise now-a-days, and so generally incurable;

PART III. curable; not that they are so in themfelves, but only render'd so by those, that are afraid to proceed in a Way only capable of curing them.

> In this Case, therefore, the most violent Vomits, the strongest purging Medicines, and large Bleedings, are to be often repeated.

R. Mel. Ellebor. Ziß, Vin. Benedict. Zi. m. f. Haust. Vomit. capt. bora 4ta Pomerid. & rep. pro re nata.

R Ellebor. Alb. crassius culè contus. 3iii. Rad. Zedoar. 3i. Crem. Tart. 3β, coq. in Aq. Font. 3vi. ad 3iii. cui adde Syr. de Spin. Cervin. 3vi. Aq. Peon. C. 3ii. m. f. Haust. capt. Mane & rep. pro re nata.

Fluat Sang. è Vena jugulari ad Quantitat. Zxvi. & repet. pro re nata si Furor in Anima restat.

Applic. Emplast. Epispastic. toto Capiti eraso.

As the Habit, under this State of Lunacy, is generally hot and dry, so Camphire phire will be a very improper Remedy to CHAP. 10. be given in these Circumstances.

In this Case, Ens Veneris will prove a most excellent and sovereign Remedy.

Re Ent. Veneris 3\beta, Pulv. Sem. Agni Cast. Lactucæ, ana gr. xii. Pulv. Heleni 3\beta, m. f. Pulv. capt. omni Mane & Hora 4ta Pomerid. Superbib. Cochlear. 6. Seq.

R. Aq. Rut. Zvi. Aq. Peon. C. Zii. Syr. Atrip. Olid. Zi. m. f. Julap.

R. Ent. Veneris 3β, Pulv. Sem. Rut. Di. Opii crud. gr. iiβ, Confect. Rhaleian. Di. m. f. Bol. capt. singula Nocte cum Cochlear. 4. Julap. præscript.

AFTER Bleeding, Purging, and Vomiting, and these Operations have been often repeated, we must then have recourse to cooling, softening, and relaxing Apozems and Emulsions, in order to supple the Solids, relax their Machinulæ, and unbrace the Fibres of the Brain. 404



Re Decoct. Pectoral. thiβ, Aq. Nephritic. 3ii. Syr. Alth. 3iβ, m. f. Apozem.

OR in case the Fœces be hard, and come not away kindly, the following.

R. Aq. Malvæ tbii. Syr. Alth. Violar. ana zii. Spt. Nitr. Dulc. ziii. m. f. Apozema capt. tbβ, omni Mane horis zbus ante prandium & Hora 4ta Pomerid. vel:

Re Sem. Papaver. Alb. 3vi. Amigd. dulc. 3ii. Sem. 4tr. frigd. major. ana 3iβ, Contund. in Mortario Marmoreo sensim, affundendo Aq. Hord. thii. Col. cui adde Syr. Violar. Rosar. Dam. ana 3iβ, m. Emulsio.

AND as under Melancholy Madness the Cold Bath, or the Patient flung from a considerable Height into the Water, is of singular Service; so the Warm Bath, or the Patient's falling from a considerable Height into warm Water, must be of great Consequence in this Case, to soften, relax, and let down the Machinulæ

chinulæ of the Fibres within their pro- CHAP. 10. per Spheres again.

But, in this Case, we must be highly careful, that in the Pursuit of these rigorous Measures, to pull down this artificial Strength, we do not too much relax the Fibres, and suffer them to sink beneath their natural Standard; for sometimes, upon the Discharge of that tenacious Matter, that holds the Fibres of the Brain too closely connected, their Machinula generally sink; upon which, the Patient, that but just before was raging mad, becomes extremely dull, and stupidly melancholy.

THE first Symptoms that discover this Change about to be, is a sudden Fit of Crying, preceded by a small Interval of Gloom and Sadness. The Patient bursts out in Tears, and begins to perceive, with some Degree of sensible Reslection, Marks of his sad, wretched, and misseable Condition.

PART III.

In this Case, all our Endeavours must

In this Case, all our Endeavours must be us'd, as much as possible, to prevent this Change; because it is seldom known, that the Patient survives it above a Month.

To this End and Purpose, we must prescribe the most generous Medicines, and employ all Arts and Means to keep up the Contraction of the Solids, revive their Motions, and prevent them as much as possible from lapsing into this dangerous, and often fatal State.

While the Madness holds on, a spare, thin, attenuating Diet is known to be of singular Service, which, in conjunction with the foregoing Remedies, I believe will be able to relieve any Degree of Lunacy, capable of a Cure.

And certainly a great many of our religious Visionaries, and French Prophets, that swarm'd here in such Numbers, would have done much better under the Hand

delicate County and harms to perceive,

Hand of the Physician, than the secular Chap. 10. Arm. Strong Purgatives, Bleeding often repeated, and the Discipline and Management necessary in such Cases, would much easilier have pull'd down that over-weaning Opinion of Self-holiness, by which they were spirited to believe themselves, what all the World were persuaded they were not, and which would be the properest Means to prevent those numberless Blasphemies belch'd out against God, against Things sacred, and against the awful Dignity of Majesty itself.

Thus I have gone through the Nature, Cause, and Cure, of all the most perplexing Phænomena, that affect the animal Powers, from the slightest Symptoms of the Spleen and Vapours, to the most confirm'd Affections of Melancholy Madness and Lunacy: In which Proceeding I have endeavour'd to place these serveral Subjects, in the clearest Light their abstructe Natures would admit; and have endeavour'd to demonstrate, that they

Of the Spleen, Vapours, &c.

PARTIII. they are no imaginary Whims or Fancies, but real Affections of the Mind, arising from the real, mechanical Affections of Matter and Motion, whenever the Constitution of the Brain warps from its natural Standard.

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FINIS



