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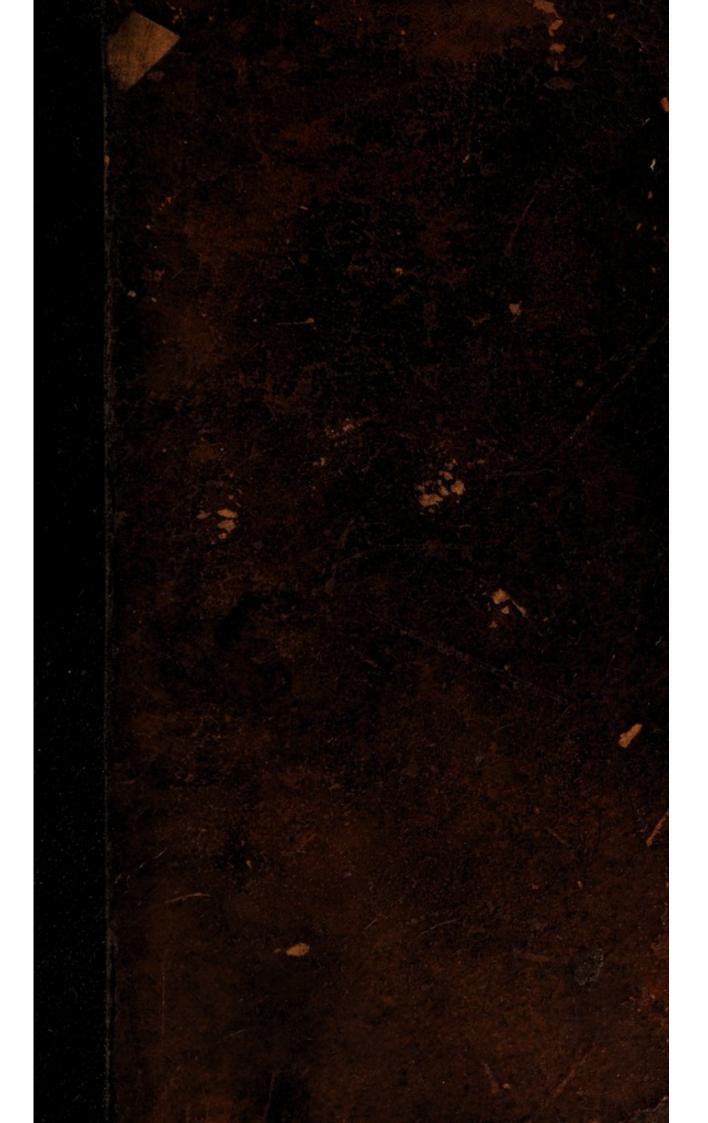
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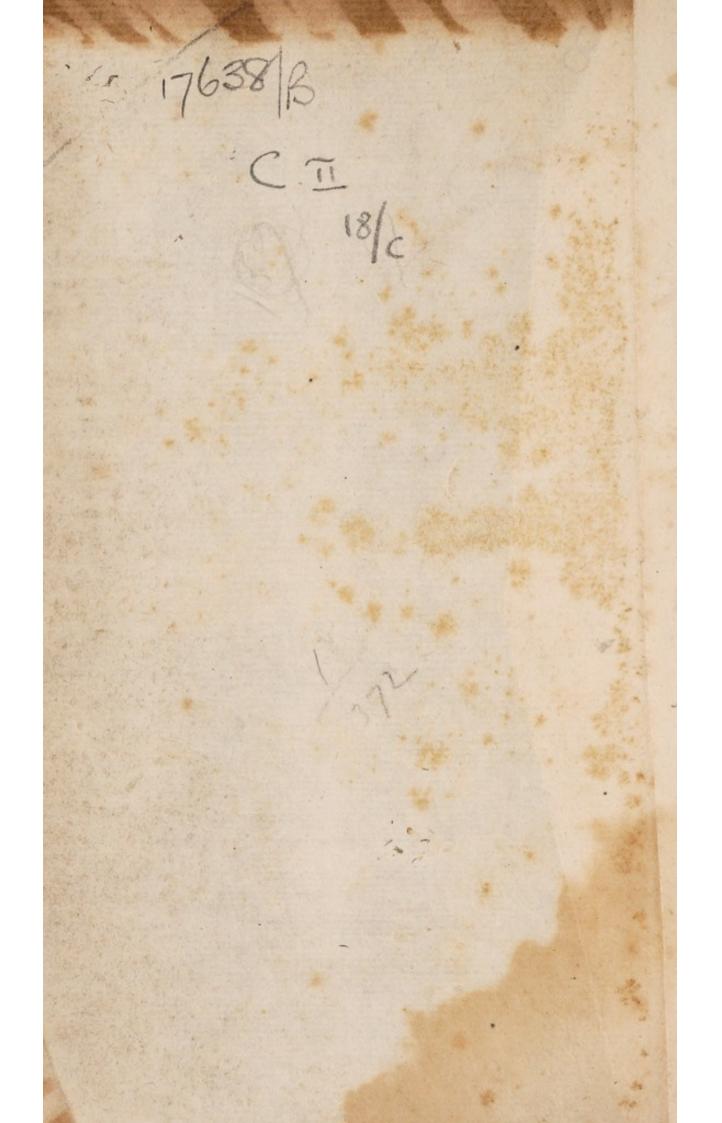
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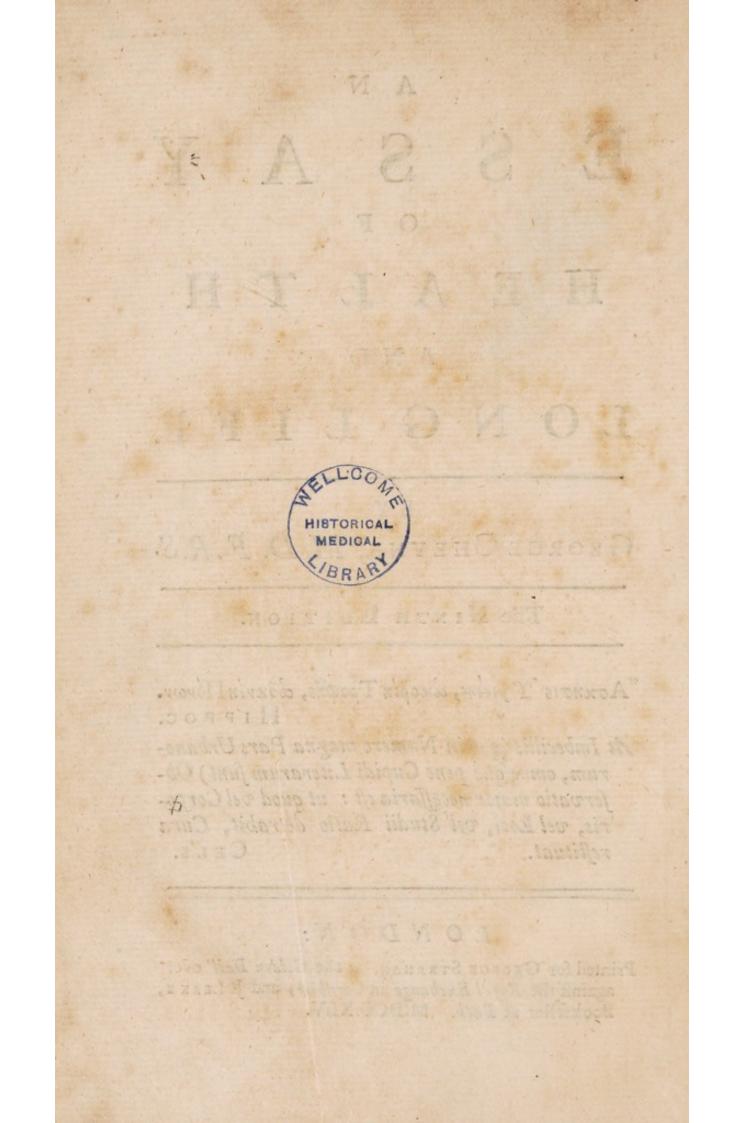
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# Bannah AN SS E A OF EALT H H AND LONGLIFE. BY GEORGE CHEYNE, M.D. F.R.S. The NINTH EDITION. "Ασκήσις Υγιείης, ακορίη Τροφής, ασκνίη Πονων. HIPPOC. At Imbecillis (quo in Numero magna Pars Urbanorum, omnesque pene Cupidi Literarum sunt) Observatio major necessaria est : ut quod vel Corporis, vel Loci, vel Studii Ratio detrabit, Cura restituat. CELS. LONDON:

Printed for GEORGE STRAHAN, at the Golden Ball overagainst the Royal Exchange in Cornhill; and J. LEAKE, Bookseller at Bath. M.DCO.XLV.



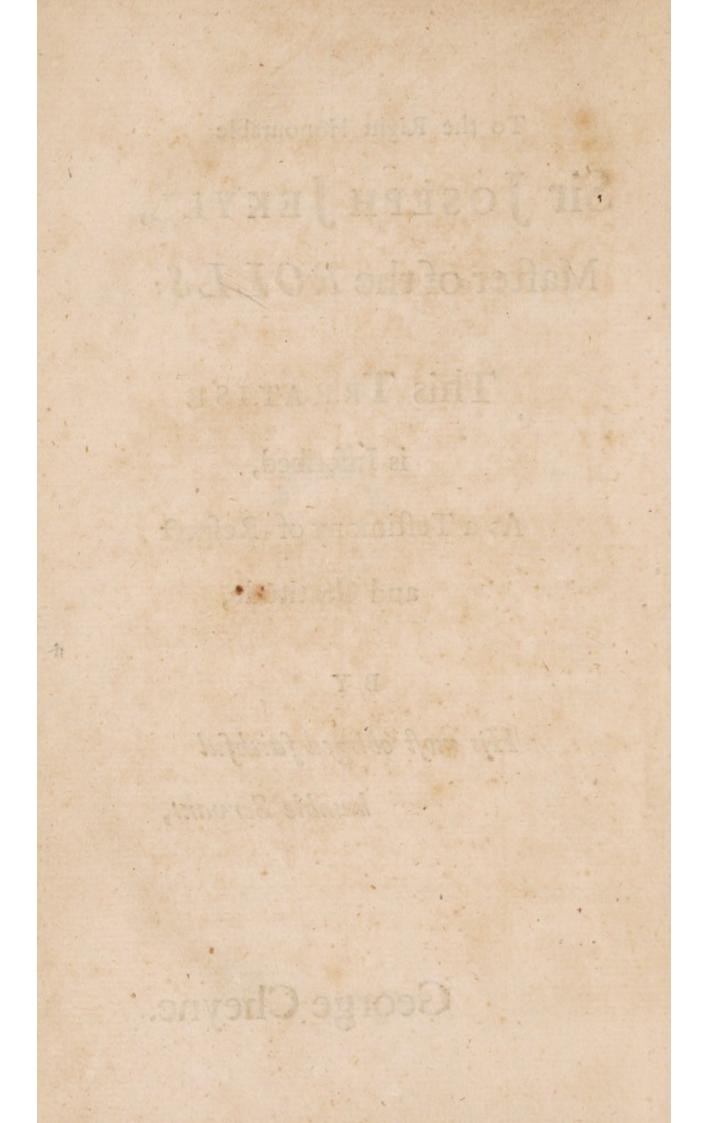
To the Right Honourable Sir JOSEPH JEKYLL, Master of the ROLLS:

> This TREATISE is Inferibed, As a Teftimony of Respect and Gratitude,

> > BY

His most obliged faithful bumble Servant,

George Cheyne.



The PEI ACE

## THE

# PREFACE.



HIS being, probably, the last Time I may trespass on the Public, I look upon myself, in some measure, obliged to settle my Accounts with the World, as an Author, before I make my Exit, by endeavouring to shew I have not always offended out of Presumption, Vanity, or Wantonness.

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THE first Time I adventured in Print, was on the Account of my great Master, and generous Friend, Dr. Pitcairn. He thought himself ill used by some of his Brethren of the Profession, who then were at intestine War on the Subject of Fevers; and fansied, the bandsomest way to bring them down, was to exhibit a more specious Account of this Disease, than any of them had shewn. His Business then, in the Practice of Physic, was so great, as not to allow him Sufficient Time for Juch a Work. Two others, therefore, with myself, were joined to manage the Affair, in which he was to cut and carve, and to add the practical Part My Province was the Theory. I was then very young in the Profession, and living in the Country: but in a few Days I brought in my Part finished, as it now appears, under

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under the Title of The New Theory of Fevers. The others either suppressed or forgot theirs; and mine, without the least Alteration, but in a few Words, was ordered for the Pres. I could not refift the Commands of my Friend; but would not suffer my Name to be put to it, being conscious it was a raw and unexperienced Performance. There are, tho', some Things in it which may be of Use to Beginners, both as to the Method of philofophizing on the animal Oeconomy, and in the Account of the Manner of the Operation of the greater Medicines. The Foundations also, and the Causes assigned for acute and flow Fevers, I still think folid and just, and more particular and limited than those of any other Theory yet published.

My next Sally was in a Book of abstratted Geometry and Algebra, in-A 4 tituled,

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tituled, Methodus Fluxionum Inversa, brought forth in Ambition, and bred up in Vanity. There are some Things in it tolerable for the Time, when the · Methods of Quadratures, the Menfuration of Ratio's, and Transformation of Curves, into those of other Kinds, were not advanced to fuch Heights as they now are. But it is a long time fince I was forced to foregothese barren and airy Studies, for more substantial and commodious Speculations; indulging and rioting in these so exquisitely bewitching Contemplations, being only proper for public Professors, and those born to Estates, and who are under no outward Necessities. Besides, to own a great, but grievous Truth, tho' they may guicken and Charpen the Invention, firengthen and extend the Imagination, improve and refine the reasoning Faculty, and are of Use both in the necessary and the luxurious Refinement of mechanical Arts; yet, having no Tendency

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Tendency to rectify the Will, sweeten the Temper, or mend the Heart, they often leave a Stiffness, Positiveness, and Sufficiency, on weak Minds, much more pernicious to Society, and the Interests of the great End of our Being, than all the Advantages they bring them can recompense. They are, indeed, Edge-tools, not to be trusted in the Hands of any, but those who have already acquired an humble Heart, a lowly Spirit, and a fober and teachable Temper : For in others they are very apt to beget a secret and refined Pride, an over-weening and overbearing Vanity, (the most opposite Temper to the true Gospel Spirit, which, without Offence, I may suppose to be the best Disposition of Mind) that tempts them to presume on a kind of Omniscience in respect of their Fellow-creatures, that have not risen to their Elevation; and to set up for an Infallibility, or, at least, a decisive Judg-

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Judgment, even in Matters which do not admit of a More or Less (their proper Object); of which Kind whatever relates to the infinite Author of our Being most certainly is. Upon all which Accounts, conscious of myown Weakness, I have long fince bid them an Adieu, further than they serve to amuse, or are useful in the absolute Necessities of Life.

THE Defence of that Book against the learned and acute Mr. Abr. de Moivre, being written in a Spirit of Lewity and Refentment, I most fincerely retract, and wish undone, so far as it is personal or peevish, and ask him and the World Pardon for it; as I do for the Defence of Dr. Pitcaun's Differtations, against the late learned and ingenious Dr. Oliphant. I beartily condemn and detest all personal Reflections, all malicious and unmannerly Terms, and all false and unjust

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unjust Representations, as unbecoming Gentlemen, Scholars, and Christians; and disprove and undo both Performances, as far as in me lies, in every thing that does not strictly and barely relate to the Argument.

THE First Part of the Philosophical Principles, that of Natural Religion, confifts merely of Discourses and Lectures of Natural Philosophy, and of its Consequences on Religion, occasionally read or discoursed, to that most noble and great Person, the Duke of Roxburgh, who is now fo great an Ornament to bis Country, and his high Employments, to whom they were inscribed. I thought they might be of Use to other young Gentlemen, who, while they were learning the Elements of Natural Philosophy, might have thereby the Principles of Natural Religion infenfibly instilled into them. And accordingly it has been,

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been, and is, used for that Purpose, at both Universities. Upon which Account, upon proper Occasions, I will not fail to improve it in all the new Discoveries in Experimental Philosophy, or in the final and natural Causes of Things, as happen to be made, so as to leave it as little impersent in its kind as I possibly can.

THE Second Part of the Philofophical Principles, to wit, that of Revealed Religion, was added afterward, to shew, that all our Knowlege of Nature was by Analogy, or the Relation of Things only, and not their real Nature, Substance, or internal Principles: That from this Method of Analogy (the only Medium of human Knowlege) we should be necessarily led to conclude, the Attributes or Qualities of the supreme and absolute Infinite were in-

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indeed analogous to the Properties or Qualities of finite Beings, but only in such a manner as the Difference between Infinite and Finite requires; and that therefore, not being able to know precifely these Differences, we ought implicitly to believe, without reasoning, what is revealed to us concerning the Nature of the infinite Being; or bring our Reafon to submit to the Mysteries of Faith. How I have succeeded, is not for me to determine. As the End was bonest, I am secure the great Principles, and the fundamental Propositions, are true and just. They may want a little farther clearing up, and Explication : But, as yet, I have met with no Reason to retract any thing material; elfe I (hould most certainly do it.

THE Effay on the Gout, and Bath Waters, was brought forth by mere Acci-

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Accident; the first Draught being, as I there mentioned, only a Paper of Directions for a Gentleman, my Friend and Patient, troubled with the Gout. It was inlarged upon different Occasions, and published, to prevent its being pirated; several Copies having been given out to others in the same Circumstances. I have the Satisfaction to know from many different Hands, that it has benefited great Numbers of infirm and afflicted Persons; and shall therefore go on to cultivate it, as far as my poor Abilities will permit.

I AM now come to this my last Production; whose Origin was as casual as that of my former. My good and worthy Friend the present Master of the Rolls, having been, last Autumn, at Bath, for a Confirmation of his Health, at his Departure desired of me to draw up some

### The PREFACE.

Some Instructions in Writing, to direct him in the Conduct of his Health for the future, and in the Manner of Supporting his Spirits free and full, under the great Business he is engaged in. I was then in the Hurry of our Season, and could not so soon answer bis Expectation, as his real Worth, and my sincere Esteem, required. I thought myself, therefore, the more obliged, as foon as I had Leisure, to exert myself to the uttermost in Obedience to bis Commands. At first I drew up most of these Rules at the End of the several Chapters; but, upon Reflection, thought it not Respect enough to his good Tafte and Capacity to judge of the Reasons of Things, to prescribe him bare and dry Directions in Matters of so great Moment. I added therefore the philosophical Account and Reasons of these Rules, which make up the Bulk of the Chapters themselves. He, out of his Love

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Love to bis Fellow-citizens, (which is one shining Part of bis Character, and which I ought to suppose, has, in this Instance only, imposed on his better Judgment) desired they might be made public. Upon which Account several Things have been since added, to make the Whole of more general Use. If therefore any thing in this Treatise be tolerable, or if any Perfon receive Benefit by it, they owe it intirely to that excellent Person, upon whose Account solely it was undertaken, and at whose Request it is published.

I HAVE, indeed, long and often, observed, with great Pity and Regret, many very learned, ingenious, and even religious Persons, who, being weak and tender, (as such generally are) have suffered to the last Extremity, for want of a due Regimen of Diet, and other general Directions of Health,

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Health, who had good Sense enough to understand the Force and Necessity of such Rules, valued Health Sufficiently, and despised sensual Gratifications, for the Pleasures of the Mind, fo far, as to be able and willing to abstain from every thing burtful, deny themselves any thing their Appetites craved, and to conform to any Rules, for a tolerable Degree of Health, Ease, and Freedom of Spirits; and yet, being ignorant bow to conduct themselves, from what to abstain, and what to use, they have suffered even to mortal Agonies ; who, had they been better directed and instructed, had passed their Lives in tolerable Eafe and Quiet. It is for these, and these only, the following Treatife is defigned. The Robust, the Luxurious, the Pot-companions, the Loofe, and the Abandoned, have bere no Bufiness

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ness; their Time is not yet come. But the Sickly and the Aged, the Studious and the Sedentary, Perfons of weak Nerves, and the Gentlemen of the learned Professions, I hope, by the divine Bleffing on the following Treatife, may be enabled to follow their Studies and Professions with greater Security and Application, and yet preserve their Health and Freedom of Spirits more intire, and to a longer Date. I am morally certain, had I known and been as well satisfied of the Necessity of the Rules here laid down, thirty Years ago, as I am now, I had fuffered lefs, and had had a greater Freedom of Spirits than I have enjoyed. But every thing is best as it has been, except the Errors and Failings of our free Wills.

#### IKNOW

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IKNOW no useful Means of Health and Long Life I have omitted, nor any pernicious Custom I have not noted; and have given the plaineft and most familiar Reasons I could urge for the Rules I have here laid down. Most of my Arguments (as they needs must) have risen out of the animal Functions and Oeconomy: And I have used as little Subtility and Refinement in my Explications of these, as the present State of Natural Philosophy could admit. I have been often contented with plain and obvious Facts to account for Appearances, and the Cautions thence deduced; when, according to the Humour of the present Age, I might have run into refined Speculations of Metaphysics, or Mathematics; being contented with the Crasso Modo Philosophari; because we shall never 60 8 2

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be able to fearch out the Works of the Almighty to Perfection, fo as to penetrate the internal Nature of Things.

I HAVE confulted nothing but my own Experience and Observation on my own crazy Carcafe; and the Infirmities of others I have treated, in the following Rules, their Reafons and Philosophy (so that if any thing is borrowed, it has occurred to me as my own), but in so far as Authorities go to shorten philosophical Accounts. Not but that all syftematic Writers in Physic, and many particular Authors, have treated the fame Subject .: But their Rules, besides that they are often inconsitent with Reason, or contrary to Experience, are so general, and expressed in so unlimited and undefined Terms, as leave little or no Cer-

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Certainty in them; when applied to particular Cafes, they want the necessary Precision and Exactness, and so become useless or perplexing : and, lastly, when they come (which is rarely to be found among them) to give the Reasons and Philosophy of their Directions, they have not the Perspicuity and natural Way of convincing the ingenious, fickly, and tender Sufferers, so necessary to make them chearfully and readily undergo such severe Restraints; which I take to be, by far, the most difficult Part of such a Work, and which I have laboured, with my utmost Power, to Supply.

IKNOW not what may be the Fate and Success of this Performance; nor am I solicitous about it, being conscious the Design was bonest, the Subject weighty, and the Exea 3 cution

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cution the best my Time, my Abilities, and my Health, would permit, which cannot bear the Labour of much Filing and Finishing. Being careful not to incroach on the Province of the Physician, I have concealed nothing my Knowlege could suggest, to direct the Sufferer, in the best manner I could, to preserve his Health, and lengthen out his Life. And I have held out no false or delusory Lights to lead him astray, or torment him unnecessarily.

IF it were possible any Set of Men could be offended at my Performance, it might be my Brethren of the Profession, for endeavouring to lessen the Materia Morbifica. But as this would be the most malicious, unjust, and unworthy Reflection that could be thrown on Scholars

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lars and Gentlemen of a liberal Education, fo I never entertained the most remote Vanity to think any Endeavour of mine would make fo considerable a Change in the Nation; especially when the Devil, the World, and the Flesh, were on the other Side of the Question, which have stood their Ground even against the Rules of Life and Immortality brought to Light by the Gospel.

I CANNOT conclude this tedious Preface, without begging Pardon of the Reader, for troubling him with my private Matters. All I can fay as an Apology, is, that of whatfoever Indifference my Concerns as an Author may be to him, yet they were not fo to me; this being the only Place and Time I may have to adjust a 4 them xx The PREFACE. them in, and it being the Height of my Ambition,

Nil conscire mihi, nullà pallescere culpâ.



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In

In Clarissimi Medici GEO. CHEYNÆI Tentamen de Sanitate & Longævitate, doctum variumque Opus miratus, hæc effudit \* \* Virtutum illius Viri Cultor impensissimus.

UC ades o! fævum Membris arcere Venenum Qui cupis, & Morbi Semina tetra gravis. Sive tremens pavidusque vides instare minacem Scorbutum (ut videas hic Liber, ecce ! docet) ; Sive parant atras Hypochondria turgida Nubes, Quæ Menti offusæ triftia Spectra darent ; Seu Monstri quodcunque imis Penetralibus hæret, Principium Morbi, mox generanda Lues : Ecce Opifer p æfens, CHEYNÆUS, lenit acerbum In Venis Succum, nec tibi Membra dolent; Aut pellit triftris Simulacra fugacia Spectri, Atque Animo prohibet Gaudia abeffe tuo; Maturâque Operâ prævertens triftia Fata Ægrotare vetat, nec doluisse finit. Perlege (at attentus) culti Documenta Libelli, Si te vel fanum vel cupis effe probum : (Arctè etenim fociata Salus fideliter hæret Virturi, Vitio nec Comes effe volet.) Difce Voluptates prudens vitare nocentes ; Hinc difce & veris innocuifque frui. Ut tibi fit Somnus Lenimen dulce Laborum : Quæque onerant Mensas dulcia Fercla fient ; Ut vigeant Artus, nec faucia Membra laborent ; Hic Gulæ effrænis Crimina mille lege. Chirurgi Ferrum te, & tetrica Pharmaca terrent ? Hinc disce ambobus posse carere Malis.

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# AN ESSAY

### OF

# Health and Long Life.

### SECT. I.



T is a common Saying, That every Man paft Forty is either a Fool, or a Physician. It might have been as justly added, that he was a Divine too : For,

as the World goes at prefent, there is not any thing that the Generality of the better Sort of Mankind fo lavishly and fo unconcernedly throw away, as Health, except eternal Felicity. Most Men know when they are

# An ESSAY of HEALTH

are ill, but very few when they are well. And yet it is most certain, that 'tis easier to preserve Health, than to recover it; and to prevent Diseases, than to cure them. Towards the first, the Means are mostly in our own Power: Little elfe is required than to bear, and forbear. But towards the latter, the Means are perplexed and uncertain; and, for the Knowlege of them, the far greatest Part of Mankind must apply to others, of whose Skill and Honefty they are, in a great measure, ignorant, and the Benefit of whofe Art they can but conditionally and precarioufly obtain. A crazy Constitution, original weak Nerves, dearbought Experience in Things helpful and hurtful, and long Observation on the Complaints of others, who came for Relief to this universal Infirmary, BATH, have at last (in some measure) taught me some of the most effectual Means of preferving Health, and prolonging Life, in those who are tender and fickly, and labour under chronical Distempers. And I thought I could not spend my leisure Hours better, than by putting together the most general Rules for that Purpofe, and fetting them in the clearest and strongest Light I could, for the Benefit of those who may

may want them, and yet have not had fuch favourable Opportunities to learn them.

§. II. AND that I might write with fome Order and Connexion, I have chofen to make fome Observations and Reflections on the Non-naturals (as they are called, poffibly becaufe that in their preternatural State they are eminently injurious to human Constitutions; or, more probably, because tho' they be necessary to the Subfiftence of Man, yet, in respect of him, they may be confidered as external, or different from the internal Causes that produce Diseases); to wit, 1. The Air we breathe in. 2. Our Meat and Drink. 3. Our Sleep and Watching. 4. Our Exercife and Reft. 5. Our Evacuations, and their Obstructions. 6. The Paffions of our Minds. And, lastly, To add fome Obfervations that come not fo naturally under any of these Heads. I shall not confider here, how philosophically these Distinctions are made; they feem to me the best general Heads for bringing in those Observations and Reflections I am to make in the following Pages.

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§. III.

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§. III. THE Reflection is not more common than just, That he who lives phyfically must live miserably. The Truth is, too great Nicety and Exactness about every minute Circumftance that may impair our Health, is fuch a Yoke and Slavery, as no Man of a generous, free Spirit would submit to. 'Tis, as a Poet expresses it, to die for fear of dying. And to forbear or give over a just, charitable, or even generous Office of Life, from a too fcrupulous regard to Health, is unworthy of a Man, much more of a Christian. But then, on the other hand, to cut off our Days by Intemperance, Indi/cretion, and guilty Paffions; to live miferably, for the fake of gratifying a fweet Tooth, or a brutal Itch; to die Martyrs to our Luxury and Wantonnes; is equally beneath the Dignity of human Nature, and contrary to the Homage we owe to the Author of our Being. Without fome Degree of Health, we can neither be agreeable to our selves, nor useful to our Friends; we can neither relifh the Bleffings of Divine Providence to us in Life, nor acquit ourselves of our Duties to our Maker, or our Neighbour. He that wantonly transgresseth the self-evident Rules

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Rules of Health, is guilty of a Degree of Self-Murder; and an habitual Perfeverance therein is direct Suicide \*, and confequently the greatest Crime he can commit against the Author of his Being; as it is flighting and defpifing the nobleft Gift he could beftow upon him, viz. the Means of making himfelf infinitely happy; and alfo, as it is a treacherous forfaking the Post, wherein his Wisdom has placed him, and thereby rendering himfelf incapable of answering the Designs of his Providence over him. The infinitely wife Author of Nature has fo contrived Things, that the most remarkable RULES of preferving LIFE and HEALTH are moral Duties commanded us; so true it is, that Godline is has the Promifes of this Life, as well as that to come.

To avoid all ufeless Refinement, I will lay down only a few plain, casy observed Rules, which a Man may readily follow, without any Trouble or Constraint.

\* Self Murder.

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# CHAP. I.

# Of AIR.

§. I.

IR being one of the most neceffary Things towards the Subsistence and Health of all Animals, 'tis a Won-

der to me, that here in England, where Luxury, and all the Arts of living well, are cultivated even to a Vice, the Choice of Air fhould be fo little confidered.

§. II. FROM Observations on Bleeding in Rheumatisms, and after catching Cold, 'tis evident, that the Air, with its different Qualities, can alter and quite vitiate the whole Texture of the Blood, and animal Juices: From the Palsies, Vertigoes, Vapours, and other nervous Affections, caused by Damps, Mines, and working on some Minerals, (\* particularly Mer-

\* Vide Ramazini, of the Diseases of Tradesmen.

cury

cury and Antimony)'tis plain, Air, fo and to qualified, can relax and obstruct the whole nervous System. From the Cholics, Fluxes, Coughs, and Confumptions, produced by damp, moift, and nitrous Air, 'tis manifest, that it can obstruct and spoil the noble Organs. The Air is attracted and received into our Habit, and mixed with our Fluids, every Instant of our Lives; fo that any ill Quality in the Air fo continually introduced, must, in time, produce fatal Effects on the animal Oeconomy : And therefore it will be of the utmost Confequence to every one, to take care what Kind of Air it is they fleep and watch, breathe and live in, and are perpetually receiving into the most intimate Union with the Principles of Life. I shall only take Notice of three Conditions of Air.

§. III. THE first is, That, when Gentlemen build Seats, they ought never to place them upon any high Hill, very near any great Confluence of Water, in the Neighbourhood of any great Mines, or Beds of Minerals, nor on any fwamp, marshy, or mosfy Foundation; but either in a champagne Country, or on the Side of a small Eminence, shelter'd from the North and B 4 East

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East Winds, or upon a light, gravelly Soil. The Nature of the Soil will be well known, from the Plants and Herbs that grow on it, or rather, more fecurely, from the Nature of the Waters that fpring out of it, which ought always to be sweet, clear, light, soft, and tasteles. All high Mountains are damp, as Dr. Halley observed at St. Helena, a mountainous Place, where Damps fell fo perpetually in the Night-time, that he was obliged to be every Moment wiping his Glasses, in making his Astronomical Observations. And, where the Mountains are high, the Inhabitants of them are forced to fend their Furniture, in Winter, to the Valley, left it should rot. And 'tis common to have it rain or fnow on Mountains, when the Valleys below are clear, ferene, and dry. All great Hills are Nefts of Minerals, and Covers (made of the prominent Earth) for Reservoirs of Rain-water. The Clouds are but great Fleeces of rarefied Water failing in the Air, fometimes not many Yards above the champagne Country; and thefe high Hills intercepting them, they are compreffed into Dew, or Rain, and are perpetually drilling down the Crannies of the

the Mountains into these Basins. Hence the Origin of Rivers, and fresh-water Springs. Besides that, these mountainous Places are always exposed to high, and almost perpetual Winds. Where any great Concourse of Water is, the Air must needs be perpetually damp, because the Sun is perpetually straining, from these Waters, moist Dews and Vapours thro it. All great Nests of Minerals, or large Mines, must necessarily impregnate the Air with their respective Qualities. And moss Blackness is fome Degree of Putrefaction, as \* Sir Isaac Newton obferves.

§. IV. Secondly, THE Winds that are most frequent, and most pernicious, in England, are the Easterly, especially the North-east Winds, which in the Winter are the most piercing cold, in Summer the most parching hot. In Winter, they bring along with them all the Nitre of the Northern and Scythian Snows, Mountains of Ice, and frozen Seas, through which they come; and, in

\* See his Treatife about Light and Colours.

Summer,

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Summer, blow with all the fiery Particles of the perpetual Day they pais thro'. From the End of January, till towards the End of May, the Wind blows almost perpetually from the Eastern and Northern Points, if the Spring is dry; and from the Southern and Western Points, if the Spring is wet (and generally, from the setting in of the Winds, on a New-Moon, you may predict the Weather of the Spring); and our Bodies most certainly attracting the circumambient Air, and the Fumes of those Bodies that are next to us, it will be very convenient for valetudinary, studious, and contemplative Persons, in a dry Spring, or in Easterly Winds, to change their Bedchambers into Rooms that have Western or Southern Lights, or to fhut close up the Eastern and Northern Lights, or to have them but feldom opened; and, in wet Seafons, to take the contrary Courfe. And if any fuch Person has been much exposed, or long abroad, in a Northerly or bleakish Easterly Wind, it will be very proper for him to drink down, going to Bed, a large Draught of warm Water-gruel, or of warm finall Mountainwine Whey, as an Antidote against the nitrous

nitrous Effluvia fuck'd into the Body, and to open the Obstructions of the Perspiration made thereby.

§. V. Thirdly, FROM the Beginning of November till towards the Beginning of February, London is covered over with one universal nitrous and fulphurous Smoke, from the Multitude of Coal-Fires, the Absence of that material Divinity the Sun, and the Confequence thereof, the falling of the Dews and Vapours of the Night. In fuch a Seafon, weak and tender People, and those that are subject to nervous or pulmonic Distempers, ought either to go into the Country, or to be at home foon after Sun-set, and to dispel the Damps with clear, warm Fires, and chearful Converfation, go early to Bed, and rife proportionally fooner in the Morning; for, as the Sun's Removal fuffers the Vapours to fall and condense in the Evening, fo his Approach difpels and raifes them in the Morning. I need not add, that it will be very fit for those that are valetudinary, to have their Servants, Children, Bed-fellows, and all those that approach them, with whom they live constantly, and mix Atmospheres, to be as healthy,

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healthy, found, and fweet, as poffibly they can; and, for their own fakes, to have them removed till they are made fo, if they are otherwife. Nor fhall I add any preffing Inftances, to avoid wet Rooms, damp Beds, and foul Linen, or to remove Ordure and Nuifances; the Luxury of England having run all these rather into a Vice.

§. VI. THE Air is a Fluid, wherein Parts of all Kinds of Bodies swim as in Water. But Air differs from Water in this, that the first is compressible into a leffer Compais, and fmaller Volume, like a Fleece of Wool, either by its own Weight, or any other Force; which Weight or Force being removed, the Air immediately recovers its former Bulk and Dimensions again, whereas no Force whatever can bring Water into narrower Bounds; that is, Air is extremely elastic and springy, but Water is not at all fo. Yet the Parts of Air would feem to be groffer than the Parts of Water : For Water will get through a Bladder, and may be forced through the Pores of Gold; but Air will pass through neither. By this its elastic Force, the Air infinuates itself into the patent Cavities of all

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all animal Bodies; and the Infant, which never breathed before, as foon as it is exposed to this Element, has the little Bladders, whereof the Lungs confift, blown up into a perpendicular Erection on the Branches of the Wind-pipe; whereby the Obstruction from the Pressure of the Vesicles (arising from their being compreffed together, and lying upon one another) being, in some measure, taken off, the muscular Action of the Right Ventricle of the Heart is able to force the Blood through the Lungs into the Left Ventricle. But these little Bladders, being thus inflated by an elastic Fluid, still prefs fo far upon, and grind the groffer Particles of the Blood into more fizeable ones, that they may become fmall enough to circulate through the other capillary Veffels of the Body. This elaflic Air, preffing equally every Way round, by its Weight and Spring, shuts close the Scales of the Scarf-skin of healthy and ftrong Perfons; to that it denies all Entrance to the nitrous and watry Mixture, contained in it; and thus becomes a kind of Cold Bath to them, and defends them from catching Cold : But in fickly, studious, and sedentary Pcople, and those of weak Nerves, where the

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the Spring of the Coverlets and Scales; that defend the Mouths of the perspiratory Ducts, is weak, the Perspiration little, or next to none at all, and the Blood poor and fizy; the nitrous and watry Particles of the Air get a ready and free Entrance, by these Ducts, into the Blood, and, by breaking the Globules thereof, coagulating and fixing its Fluidity, quite stop the Perspiration, and obstruct all the capillary Veffels, the cutaneous Glands, and those of the Lungs, and alimentary Paffages, when fuch Bodies are long exposed to fuch an Air; and thus beget all these Diforders in the Body, that Air, thus and thus poison'd, was shewn capable to produce. So long as the Perspiration is strong, brisk, and full, 'tis impossible any of these Diforders should happen; because the Force of the perspiratory Steams outward, is greater than the Force whereby these noxious Mixtures enter; unless the Body be indifcreetly too long exposed, or the Action of the nitrous and watry Mixtures be extremely violent. Hence it comes to país, that those who are very strong and healthy, and those who have drank strong Liquors fo plentifully, as to have thereby a brisk Circulation, and full Perspiration, feldom or never I

never catch Cold. And this is the Reafon why rich Foods, and generous Wines, moderately ufed, become fo excellent an Antidote in infectious and epidemic Diftempers, not only as they banish Fear and Terror, but as they make fo full and free a Stream of Perspiration, and maintain fo active and brisk an Atmosphere, as fuffers no noxious Steams or Mixtures. in the Air to come within it, but drives and beats off the Enemy to a Diffance. But Perfons of viscous, heavy Fluids, of poor and fizy Juices, of little or no Perspiration, fuch as generally all studious, fedentary and fickly Perfons are, but efpecially those that are subject to nervous Diforders, must necessarily fuffer under these poisonous Mixtures in the Air, if they do not cautioufly and carefully fence against them, or take not a prefent Remedy and Antidote, when tainted. For, besides the Air that gets through the perspiratory Ducts into the Blood, whenever we eat, drink, or breathe, we are taking into our Bodies fuch Air as is about us. And when the concoctive Powers are weak, as in fuch Perfons, and the Quantity of the Food is too great, or its Quality too ftrong for them, the Chyle is too grofs, and the perspiratory Matter

is

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is stopped, because too large for these small Ducts; and this whole Mass, which in common Health is more than double of the gross Evacuations, recoils in upon the Bowels, and becomes, as it were, Spears, and Darts, and Armour, to the Air receiv'd from without; which, being thus sharpened with the Salts of the unconcocted Food, together with its own elaflic Force, pierces the Sides of the Veffels, and gets into all the Cavities of the Body, and between the Muscles and their Membranes, and there, in Time, brings forth hypochondriac, hysteric, nervous, and vapourish Diforders, and all that black Train of Evils fuch Conflictutions fuffer under.

I SHALL now draw out the Cautions here inculcated, into a few general Rules.



General

General Rules for HEALTH and LONGLIFE, drawn from the Head of

### AIR.

I. HE healthieft Situation for a Seat, is in a champagne Country, or on the Side of a fmall Eminence, on a gravelly Soil, with a Southern or Western Exposition, shelter'd from the North and East Winds, distant from any great Concourse of Waters, or any great Mines or Beds of Minerals, where the Water is sweet, clear, light, soft, and tasteles.

2. TENDER People, on the fetting in of *Easterly* and *Northerly* Winds, ought to change their Bed-rooms for others of *Westerly* and *Southerly* Lights, and the contrary in wet Seasons.

3. THOSE who have been much exposed to, or long abroad in, *Easterly* or *Northerly* Winds, should drink fome thin and warm Liquor going to Bed.

4. WHEN the dark, dull, foggy Weather lasts at London in Winter, tender C Pco-

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People, and those of weak Nerves and Lungs, ought either to go into the Country, or keep much at Home in warm Rooms, go early to Bed, and rise betimes.

5. VALETUDINARY People ought to have their Servants, Children, and Bed-fellows, or those they continually approach and converse with, sound, sweet, and healthy, or ought to remove them till they are so, if they are otherwise.

6. EVERY one, in order to preferve their Health, ought to observe all the Cleanness and Sweetness in their Houses, Cloaths, and Furniture, suitable to their Condition.



CHAP.



# CHAP. II.

# Of MEAT and DRINK.

§ I. O have our Food, that is, our Meat and Drink, as to Quantity and Quality, duly regulated, and precifely adjusted to our concoctive Powers, would be of the utmost Confequence to Health and Long Life. Our Bodies require only a determinate Quantity thereof, to supply the Expences of living; and a just Proportion of that to thefe, would very probably preferve us from acute, most certainly from chronical Diftempers, and enable us to live without much Sicknefs and Pain, fo long as our Conftitutions were originally made to last. The Sources of chronical Diftempers, are, first, Viscidity in the Juices, or the Over-largeness of their constituent Particles, which, not being fufficiently broken by the concoctive Powers, ftop or retard the Circulation; or, secondly, too great abundance of fharp and acrimonious Salts. C 2

Salts, whereby the Juices themfelves are rendered fo corrosive, as to burft or wear out the Solids; or, thirdly, a Relaxation or want of a due Force and Springiness in the Solids themselves, An Excess in Quantity begets the first; the ill Condition of our Meat and Drink, the second; and both together, with want of due Labour, the third.

§. II. THE Meat of England is generally animal Subflances. The Animals themfelves, from epidemic Caufes, bad Food, Age, or other Infirmities, have their Difeases, as well as human Creatures; and these diseased Animals can never be proper or found Food for Men. Adult Animals abound more in urinous Salts than young ones : Their Parts are more closely compacted, because more forcibly united, and fo harder of Digestion. 'Tis true, the great Dislinction of the Fitness or Unfitness of the several Sorts of Animals and Vegetables, for human Food, depends upon their original Make, Frame, and Nature, (and that can be found out only by Experience) as alfo upon the special Tafte, Complexion, Temperament, and Habits of the Perfon that feeds on them. But by the Help of these three

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three Principles, viz. First, That the Strength or Weakness of Cohesion of the Particles of fluid Bodies depends upon their Bigness or Smalness; that is, the biggest Particles cohere more firmly than the smaller, because more Parts come into Contact in large Bodies than fmall, and fo their Union is greater; secondly, That the greater the Force [Momentum] is, with which two Bodies meet, the ftronger is their Cohefion, and the more difficult their Separation; thirdly, That Salts, being comprehended by plain Surfaces, being hard, and in all Changes recovering their Figure, unite the most firmly of any Bodies whatfoever : Their plain Surfaces bring many Points into Contact and Union: Their Hardness and constant Figure make them durable and unalterable; and thereby the active Principles, and the Origin of the Qualities of Bodies; and when they approach within the Sphere of one another's Activity, they firmly unite in Clusters; all which make the Separation of their original Particles the more difficult ; I fay, from these three Principles, we may, in general, compare the Eafinets or Difficulty of digesting (that is, breaking into small Parts) the feveral forts of Vegetables C 3 and

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and Animals, one with another; and fo difcover their Fitnefs or Unfitnefs for becoming Food for tender and valetudinary Perfons.

I. ALL other Things being supposed equal, those Vegetables and Animals that come to Maturity the foonest, are lightest of Digestion. Thus the Spring Vegetables, as Asparagus, Strawberries, and fome Sorts of Sallading, are more eafily digested than Pears, Apples, Peaches, and Nectarines; because they have less of the folar Fire in them; their Parts are united by a weaker Heat, that is, with lefs Velocity, and abound lefs in, nay, fcarce have any ftrong and fixed Salts. Among the Animals, the common Poultry, Hares, Sheep, Kids, Rabbets, &c. which in the fame, or a few Years, come to their Maturity, (that is, to propagate their Species) are much more tender and readily digefted, than Cows, Horfes, or Affes, (were thefe last in Ufe for Food, as they have been in Famine) &c. for the Reafon already given, because their Parts cohere less firmly. And it is observable, of the Vegetables, which are longest a ripening, that is, whole Juices have most of the folar Rays

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Rays in them, that their fermented Fuices yield the ftrongest vinous Spirits; as Grapes, Elder-berries, and the like; and of the Animals that are longest in coming to Maturity, that their Juices yield the most rank and most fetid urinous Salts.

2. OTHER Things supposed equal, the larger and bigger the Vegetable or Animal is in its Kind, the stronger and the harder to digeft is the Food made thereof : Thus a large Onion, Apple, or Pear, and large Beef and Mutton, are harder to digeft than the leffer ones of the fame Kind; not only, as their Veffels being ftronger, and more elastic, their Parts are brought together with a greater Force; but also, because the Qualities are proportionably more intense in great Bodies of the fame Kind: Thus, other Things being equal, a greater Fire is proportionably more intenfely hot, than a leffer one; and the Wine contained in a larger Veffel becomes fironger than that contained in a leffer; and confequently, the Juices of larger Animals and Vegetables are more rank than the Juices of fmaller ones of the fame Kind.

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3. OTHER Things being equal, the proper Food appointed for Animals by Nature is easier digested than the Animals themselves; those Animals that live on Vegetables, than those that live on Animals; those that live on Vegetables or Animals that foonest come to Maturity, than those that live on fuch as are longer a ripening : Thus Milk and Eggs are lighter of Digeftion than the Flefh of Beasts or Birds; Pullets and Turkies, than Ducks and Geefe; and Partridge and Pheafant are lighter than Woodcock or Snipe; becaufe these last, being longbilled, fuck only animal Juices; and, for the Reasons already given, Grass Beef and Mutton are lighter than Stall-fed. Oxen and Sheep.

4. ALL Things clie being alike, Fifh and Sea Animals are harder to digeft than Land Animals; becaufe, univerfally, their Food is other Animals; and the falt Element in which they live, compacts their Parts more firmly; Salts having a ftronger Power of Cohefion than other Bodies. And, for the fame Reafon, Saltwater Fifh is harder to digeft than Frefhwater: Thus the Sea Tortoife is harder to digeft

digest than the Land Tortoife; and Sturgeon and Turbot, than Trout or Perch.

5. OTHER Things being equal, Vegetables and Animals that abound in an oily, fat, and glutinous Substance, are harder to digest, than those of a dry, fleshy, fibrous Substance; because oily and fat Substances elude the Force and Action of the concoctive Powers; and their Parts attract one another, and unite more ftrongly than other Substances do, (except Salts) as Sir Isaac Newton \* observes. Their Softness and Humidity relaxes and weakens the Force of the Stomach; and the Far and Oil itself is thut up in little Bladders, that are with Difficulty broken. Thus Nuts of all Kinds pass through the Guts, almost untouch'd: Olives are harder to digest than Peafe; fat Flesh-meat, than the Lean of the fame: Carp, Tench, Salmon, Eel, and Turbot, are much harder to digest than Whiting, Perch, Trout, or Haddock.

6. VEGETABLES and Animals, all Things else being alike, whose Substance is white,

<sup>\*</sup> Vide Sir Isaac Newton's first English Edition of Light and Colours.

or inclining to the lighter Colours, are lighter to digeft, than those whose Substance is redder, browner, or inclining towards the more flaming Colours; not only because the Parts that reflect white and the lighter Colours, are leffer in Bulk than those that reflect the more flaming Colours \*; but also because those of the more flaming Colours abound more with urinous Salts. Thus Turneps, Parsneps, and Potatoes, are lighter than Carrots, Skirrets, and Beet-raves : Pullet, Turkey, Pheasant, and Rabbet, are lighter than Duck, Geefe, Woodcock, and Snipe: Whiting, Flounder, Perch, and Soal, are lighter than Salmon, Sturgeon, Herring, and Mackarel: Veal and Lamb are lighter than Red or Fallow Deer.

7. Lastly, ALL other Things being equal, Vegetables and Animals of a strong, poignant, aromatic, and hot Taste, are barder to digest, than those of a milder, softer, and more insipid Taste. High Relish comes from Abundance of Salts: Abundance of Salts supposes adult Animals, and such as are long a coming to

\* See the just quoted Author.

Maturity;

Maturity; and where Salts abound, the Parts are more difficultly feparated, and harder to be digefted. Strong and aromatic Plants imbibe and retain most of the *folar* Rays, and become folid Spirits, or fixed Flames; and they that deal much in them, fwallow fo much *live Coals*, which will at last inflame the Fluids, and burn up the Solids.

§. III. THERE is nothing more certain, than that the greater Superiority the concoctive Powers have over the Food, or the fironger the concoctive Powers are, in regard of the Things to be concocted, the finer the Chyle will be, the Circulation the more free, and the Spirits more lightfome; that is, the better will the Health be. Now from these general Propositions, taking in their own particular Complexion and Habits, valetudinary, studious, or contemplative Persons, may eafily fix upon these particular vegetable or animal Foods, that are fitteft for them. And, if any Error fhould be committed. 'tis best to err on the safest Side, and rather chuse those Things that are under our concoctive Powers, than those that are above them. And in the Choice of Animals for our Food, we must not país

pass over the Manner of fattening and fitting them up for the Table. About London we can scarce have any but cramm'd Poultry, or Stall-fed Butcherymeat. It were fufficient to difgust the ftoutest Stomach, to fee the foul, groß, and nafty Manner, in which, and the fetid, putrid, and unwholfome Materials, with which, they are fed. Perpetual Foulness and Cramming, gross Food and Naftinefs, we know, will putrefy the Juices, and mortify the muscular Subflance of human Creatures; and, fure, they can do no lefs in brute Animals, and thus make even our Food Poifon. The fame may be faid of Hot-beds, and forcing Plants and Vegetables. The only way of having found and healthful animal Food, is to leave them to their own natural Liberty, in the free Air, and their own proper Element, with Plenty of Food, and due Cleannefs, and a Shelter from the Injuries of the Weather, when they have a mind to retire to it. I add nothing about Cookery : Plain Roafting and Boiling is as high as valetudinary, tender, studious, and contemplative Perfons, or those who would preferve their Health, and lengthen out their Days, ought to presume on. Made Dishes, rich Soup,

Soup, high Sauces, Baking, Smoking, Salting, and Pickling, are the Inventions of Luxury, to force an unnatural Appetite, and increase the Load, which Nature, without Incentives from ill Habits, and a vicious Palate, will of itself make more than fufficient for Health and Long Life. Abstinence and proper Evacuations, due Labour and Exercise, will always recover a decayed Appetite, fo long as there is any Strength and Fund in Nature to go upon. And it is fcarce allowable to provoke an Appetite with medicinal Helps, but where the digestive Faculties have been spoiled and ruined by acute or tedious chronical Diffempers: And, as foon as it is recover'd to any tolerable Degree, Nature is to be left to its own Work, without any Spurs from Cookery or Phylic.

§. IV. THE next Confideration is the Quantity of Food that is neceffary to fupport Nature, without overloading it, in a due Plight: That is, indeed, various, according to the Age, Sex, Nature, Strength, and Country the Party is of, and the Exercife he uses. In these Northern Countries, the Coldness of the Air, the Strength and large Stature of People,

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People, demand larger Supplies than in the *Eaftern* and warmer Countries. Young, growing Perfons, and those of great Strength, and large Stature, require more than the Aged, Weak, and Slender. But Perfons of all Sorts will live more healthy, and longer, by universal *Temperance*, than otherwise. And some general Observations on the *Quantity* Persons of different Nations and Conditions have lived on, healthy, and to a great Age, may give fome Affistance to *valetudinary* and *tender* Persons, to adjust the due *Quantity* necessary for them.

§. V. IT is furprifing, to what a great Age the Eastern Christians, who retird from the Perfecutions, into the Deferts of Egypt and Arabia, lived healthful on a very little Food. We are inform'd by Caffian, that the common Measure, in twenty-four Hours, was about twelve Ounces, or a Pound, (for the Eastern Pound was but twelve Ounces) with mere Element for Drink. Saint Antony liv'd to 105 Years on mere Bread and Water, adding only a few Herbs at last : James the Hermit, to 104: Arfenius, the Tutor of the Emperor Arcadius, to 120; 65 in the World, and 55 in the

the Defert: St. Epiphanius, to 115: St. Jerom, to about 100: Simeon Stylites, 109: And Romualdus, 120: And Lewis Cornaro, a Venetian Nobleman, after he had used all other Remedies in vain, fo that his Life was defpaired of at 40, yet recover'd and liv'd, by the mere Force of Temperance, near to 100 Years.

§. VI. OUR Northern Climate, as I faid, from the Purity and Coldness of the Air, which, bracing the Fibres, makes the Appetite keener, and the Action of Digestion stronger, and from the Labour and Strength of the People, which makes the Expences of living more, will neceffarily require a greater Quantity of Food : Yet 'tis wonderful in what Sprightlinefs, Strength, Activity, and Freedom of Spirits, a low Diet, even here, will preferve those that have habituated themselves to it. Buchanan informs us of one Laurence, who preferved himfelf to 140, by the mere Force of Temperance and La-Spot/wood mentions one Kentibour. gern, (atterwards called Saint Mongah, or Mungo, from whom the famous Well in Wales is named) who lived to 185 Years, though, after he came to the Years of Understanding, he never tafted Winc, 5

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Wine, nor ftrong Drink; and flept on the cold Ground. My worthy Friend Mr. Web is still alive : He, by the Quickness of the Faculties of the Mind, and the Activity of the Organs of his Body, fhews the great Benefit of a low Dict, living altogether on vegetable Food, and pure Element. The Hiftory of the Milk \* Doctor of Croydon, who by living on Milk only, cured himfelf, of an otherwife incurable Distemper, viz. the Epilepsy, and lived in perfect Health for fixteen Years after, 'till an Accident cut him off, I have already narrated in my Treatife of the Gout. Henry Jenkins, a Fisherman, liv'd 169 Years; his Diet was coarfe and four, as his Historian informs us, that is, plain and cooling, and the Air where he lived fharp and clear, viz. Allerton upon Swale, in Yorkshire. Parr died fixteen Yearsyounger, viz. at the Age of 152 Years, 9 Months; his Dict was old Cheefe, Milk, coarfe Bread, Small Beer, and Whey: And his Historian tells us, he might have lived a good while longer, if he had not changed his Diet and Air, coming out of a clear, thin, free Air, into the thick Air of London, and after a constant, plain,

\* See an Essay on the Gout and Bath Waters. and

and homely Country Diet, being taken into a splendid Family, where he fed high, and drank plentifully of the best Wines; whereby the natural Functions of the Parts were overcharged, and the Habit of the whole Body quite difordered; upon which there could not but foon enfue a Dissolution. Dr. Lister \* mentions eight Perfons in the North of England, the youngest of which was above 100 Years, and the eldest 140: He fays, 'tis to be observed, that the Food of all this mountainous Country is exceedingly coarfe. And certainly there is no Place in the World more likely to lengthen our Life, than England, especially those Parts of it that have a free, open Air, and a gravelly and chalky Soil, if, to due Exercife, Abstemiousness, and a plain simple Diet, were added.

§. VII. I HAVE elsewhere † offered to determine the *Quantity* of Food, sufficient to keep a Man of an ordinary Stature, following no laborious Employ-

\* See Abridg of Phil. Tranf. by Lowth. + See the Essay of the Gout and Bath Waters.

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ment, in due Plight, Health, and Vigour; to wit, 8 Ounces of Flesh Meat, 12 of Bread, or vegetable Food, and about a Pint of Wine, or other generous Liquor, in 24 Hours. But the Valetudinary, and those employ'd in sedentary Professions, or intellectual Studies, must leffen this Quantity, if they would preferve their Health, and the Freedom of their Spirits, long. Studious and sedentary Men must of Neceffity eat and drink a great deal lefs, than those very fame Men might do, were they engaged in an active Life : For as they want that Exercise that is necessary towards Concoction and Perfpiration, and that their Nerves are more worn out by intellectual Studies, than even bodily Labour would wafte them; if, in any wife, they indulge Freedom of Living, their Juices must necessarily become viscid, and their Stomachs relaxed. He that would have a clear Head, must have a *clean* Stomach; the Neglect of which is the Caufe why we fee fo many hypochondriacal, melancholy, and vapourifh Gentlemen among those of the Long Robe; the only Remedy of which is Labour and Abstinence.

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6. VIII. MOST of all the chronical Difeafes, the Infirmities of old Age, and the (bort Periods of the Lives of Englishmen, are owing to Repletion. This is evident from hence; because Evacuation of one Kind or another is nine Parts of ten in their Remedy: For not only Cupping, Bleeding, Bliftering, Iffues, Purging, Vomiting, and Sweating, are manifest Evacuations, or Drains to draw out what has been superfluoufly taken down; but even Abstinence, Exercise, Alteratives, Cordials, Bitters, and Alexipharmacs, arc but feveral Means to dispose the gross Humours to be more readily evacuated by infenfible Perspiration; that new and well-concocted Chyle, and fweet comminuted Juices, may take their Place to reftore the Habit: And therefore it were much more cafy, as well as more fafe and effectual, to prevent, than incur the Necessity of, fuch Evacuations. And any one may lofe a Pound of Blood, take a Purge, or a Sweat, by dropping the great Meal, or abstaining from animal Food, and firong Liquors, for four or five Days, (in chronical Cafes) as effectually, as by opening a Vein, fwallowing a Dofe of Pills, or taking a fudorific Bolus.

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§. IX. I ADVISE therefore all Gentlemen of a sedentary Life, and of learned Professions, to use as much Abstinence as poffibly they can, confiftent with the Prefervation of their Strength, and Freedom of Spirits: Which ought to be done as foon as they find any Heavinefs, Inquietudes, reftless Nights, or Aversion to Application; either by leffening one half of their usual Quantity of animal Food, and firong Liquors, till fuch time as they regain their wonted Freedom and Indolence; or by living a due Time wholly upon vegetable Diet, fuch as Sago, Rice, Pudding, and the like, and drinking only a little Wine and Water. And if they would preferve their Health and Conftition, and lengthen out their Days, they must either inviolably live low, (or maigre, as the French call it) a Day or two in the Week; or once a Week, Fortnight, or Month at farthest, take some domestic Purge, which shall require neither Diet, nor kceping at Home; but may at once firengthen the Bowels, and discharge superfluous Humours. Of this Kind, are a Dose (6 or 7) of the Scotch Pills; half a Dram of the Pilulæ Stomachica cum Gummi, with three or four Grains

Grains of Diagryd. mix'd; half a Dram of the Pilulæ Ruffi; two Ounces of Hiera Picra, with one Dram of the Syrup of Buckthorn; two or three Ounces of Elixir Salutis; or (what I prefer before all these) this Preparation of Rhubarb:

TAKE the beft Rhubarb in Powder two Ounces and a half, Salt of Wormwood a Dram, Orange-peel half an Ounce, grated Nutmeg two Scruples, Cochineal half a Dram. Infufe 48 Hours by a warm Fire-fide, in a Quart of true Arrack. Strain it off, and put it in a well-cork'd Bottle for Ufe.

OF this, two or three Spoonfuls may be taken, two or three times a Week, or at Pleafure, with great Safety and Benefit, without Interruption of Business or Studies, and continu'd even to mature old Age, if found neceffary. So true is old Verulam's Aphorism: \* Nihil magis conducit ad Sanitatem & Longævi-

\* Nothing contributes more to Health and Long Life, than frequent Family Purges.

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tatem, quam crebræ & domesticæ purgationes. And the Gentlemen of the Long Robe, those of learned Professions, and contemplative Studies, must of Necessity, at last, take Sir Charles Scarborough's Advice, as 'tis said, to the Duchess of Portsmouth: Tou must eat less, or use more Exercise, or take Physic, or be sick.

§. X. THOSE who have written about Health, have given many Rules, whereby to know when any Perfon has exceeded at a Meal: I think there needs but this fort one; which is, If any Man has cat or drank fo much, as renders him unfit for the Duties and Studies of his Profession, (after an Hour's sitting quiet, to carry on the Digeftion) he has overdone. I mean, only of those of learned Professions, and Audious Lives; for those of mechanical Employments must take the Body, the other Part of the Compound, into Confideration. If tender People, and those of learned Professions, would go by this Rule, there would be little Use for Physic or Physicians in chronical Cafes. Or if they would but cat only one Part of animal Food, at the great Meal, and make the other two of vegetable Food, and drink only Water, with

with a Spoonful of Wine, or clear Smallbeer, their Appetites would be a fufficient Rule to determine the Quantity of their Meat and Drink. But Variety of Difhes, the luxurious Artfulnefs of Cookery, and fwallowing rich Wine after every Bit of Meat, fo lengthen out the Appetite, the Fondness of Mothers, and the Cramming of Nurfes, have fo ftretch'd the Capacities of Receiving, that there is no Security from the Appetite among the better Sort. 'Tis amazing, to think how Men of Voluptuousness, Laziness, and poor Constitutions, should imagine themfelves able to carry off Loads of high-feafon'd Foods, and inflammatory Liquors, without Injury or Pain; when Men of mechanic Employments, and robust Constitutions, are scarcely able to live healthy, and in Vigour, to any great Age, on a fimple, low, and almost vegetable Diet.

§. XI. SINCE then our Appetites are deceitful, and Weight and Measure troublesome and singular, we must have Recourse to a Rule independent of our Senstations, and free from unnecessary Trouble and Pain. To answer which, I know nothing but Eating and Drinking by our D 4 Eye;

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Eye; that is, determining, first of all, either by Weight or Measure, or by particular Observation or Experiment, the Bulk or Number of Mouthfuls of Flefhmeat, and the Number of Glaffes of firong Liquors, under which we are belt; and then, by our Eye, determining an equal Quantity at all times for the future: Thus the two Wings of a middling Pullet, or one Wing and both Legs; three Ribs of a middling Neck of Mutton, two middling Slices of a Leg or Shoulder, throwing away the Fat and the Skin; fomewhat less of Beef; may be sufficient for Flesh-meat, at the great Meal. For we are fo wifely contrived, that our Food need not be adjusted to mathematical Points: A little over or under, will make no Difference in our Health. As for Pork, and all Kinds of Hog's-flefb, I think they ought to be forbidden valetudinary and studious People, as they were the Jews: They feed the fouleft of any Creature, and their Juices are the rankest; their Substance the most furfeiting, and they are the most subject to cutaneous Difeases and Putrefaction, of any Creature; infomuch that in the Time of a Plague, or any epidemical Diftemper, they are univerfally deftroyed by

by all wife Nations, as the Southern Pcople do mad Dogs in the hot Months. The same Censure I should pass upon all Fish. Most Fish live in a saltish Element, and come only into fresh-water Rivers, for the Quietness and Conveniency of bringing torth their young ones. This makes their Parts more clofely united, and harder of Digestion. Besides, as I have before observed, they feed upon one another, and their Juices abound with a Salt that corrupts the Blood, and breeds chronical Diseases. And 'tis always obfervable, that those who live much on Fift, are infected with the Scurvy, cutaneous Eruptions, and the other Difeafes of a foul Blood : And every-body finds himfelf more thirfly and heavy than usual, after a full Meal of Fish, let them be ever to fresh; and is generally forced to have recourse to Spirits, and distilled Liquors, to carry them off: So that it is become a Proverb, among those that dive much upon them, that Brandy is Latin for Fish. Besides, that after a full Meal of Fish, even at Noon, one never fleeps fo found the enfuing Night; as is certain from conftant Observation. These few Hints may ferve the valetudinary Person, in a groß manner, to judge by the

the Eye the Quantity of folid Flefh-meat he takes, or ought to take down : For I judge the mention'd Quantities to be rather a little under than over eight Ounces. As to Broths, Soups, and Jellies, if they be ftrong, I account them equal in Nourifement, and harder to digeft, than the fame Weight of folid Flefh-meat; and three or four common Spoonfuls, at moft, make an Ounce in Weight in Liquids; and about double the Number of Bits commonly fwallowed at once, make the fame Weight in folid Flefh-meat; for Exactnefs is not here requifite.

§. XII. DRINK is the other Part of our Food. The common Drink here in England, is either Water, Malt Liquor, or Wine, or Mixtures of these; for Cyder and Perry are drank but in few Places, and rather for Pleafure and Variety, than common Use. Without all Peradventure, Water was the primitive, original Beverage, as it is the only fimple Fluid, (for there are but three more in Nature, Mercury, Light, and Air, none of which is fit for human Drink) fitted for diluting, moistening, and cooling; the Ends of Drink appointed by Nature. And happy had it been for the Race of Mankind, other mixid

mix'd and artificial Liquors had never been invented. It has been an agreeable Appearance to me, to observe with what Freshness and Vigour, those who, though eating freely of Flesh-meat, yet drank nothing but this Element, have lived in Health, Indolence, and Chearfulness, to a great Age. Water alone is sufficient and effectual for all the Purposes of human Wants in Drink. Strong Liquors were never defigned for common Ufe: They were formerly kept, (here in England) as other Medicines are, in Apothecaries Shops, and prescribed by Physicians, as they do Diascordium and Venice Treacle; to refresh the Weary, to strengthen the Weak, to give Courage to the Faint-hearted, and raife the Low-(pirited. And it were as just and reasonable, to fee Men (and, if they go on, it is not impossible I may hear of it, fince Laudanum is already taken into Feasts and Entertainments) sit down to a Dish of Venice Treacle, or Sir Walter Raleigh's Confection, with a Bottle of Hysteric Cordial, as to a Difh of Crayfish Soup, an Ox-cheek, or Venison Pasty, with a Bottle of Hermitage, or Tokay, or, which some prefer to either of them, a Bowl of PUNCH. Wine. is

is now become as common as Water, and the better Sort scarce ever dilute their Food with any other Liquor. And we fee, by daily Experience, that (as natural Caufes will always produce their proper Effects) their Blood becomes inflamed into Gout, Stone, and Rheumatism, raging Fevers, Pleurisies, Smallpox, or Measles; their Passions are enraged into Quarrels, Murder, and Blafphemy; their Juices are dried up; and their Solids fcorch'd and fhrivell'd. Those whole Appetite and Digeftion is good and intire, never want frong Liquors to fupply Spirits: Such Spirits are too volatile and fugitive for any folid or ulcful Purposes in Life. Two Ounces of Fleshmeat, well digested, beget a greater Stock of more durable and useful Spirits, than ten times as much strong Liquors, which nothing but Luxury and Concurifcence make neceffary. Happy those, whom their Parents, their natural Aversion to strong Liquors, or whom kind Providence, among the better Sort, has brought to the Age of Maturity and Diferetion, without dealing in, or desiring, any great Quantity of strong Liquors! Their Paffions have been calmer, their Senfations more exquisite, their Appetites less unruly,

ruly, and their Health more uninterrupted, than any other natural Caufe could have produced : And thrice happy they, who continue this Courfe to their last Minutes! Nothing is more ridiculous than the common Plea for continuing in drinking-on large Quantities of Ipirituous Liquors ; viz. because they have been accuftomed fo to do, and they think it dangerous to leave it off, all of a fudden. It were as reafonable for him that is fallen into the Fire or Water, to lie there, because of the Danger of removing him fuddenly; for neither Element will destroy him more certainly, before his Time, than wallowing in strong Liquors. If the Quantity of flrong Liquors they have been accustomed to, may be supposed prejudicial to their Health, or to introduce noxious Humours into the Habit; the fooner a Stop be put to it, the better. No Man is afraid to forbear frong Liquors in an acute Diftemper, what Quantity foever he might have drank in his Health: And yet any fudden Change of the Humours would not only be more dangerous then, than at any other Time; but also would more readily happen and come to pafs, in fuch critical Cafes : For, the whole Syftem of

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of the Fluids being in a Fermentation, fmall Changes or Errors, then, would not only be more fatal, but more plain and obvious. And, if a Perfon be in Hazard by fuch a *fudden* Alteration, he cannot live long, by taking down fo much Poifon. But the Matter of Fact is falle and groundlefs; for I have known and obferved constant good Effects, from leaving off fuddenly great Quantities of Wine, and Flesh-meats too, by those long accustomed to both; am ready to name he Perfons; and never observed any ill Confequence from it in any Cafe whatfoever. Those whose Constitutions have been quite broken, and running into Diffolution, have lived longer, and been lefs pained in Sicknefs, by fo doing : And Those who have had a Fund in Nature to last longer, have grown better, and attained their End by it. I allow every Man, that has been accuftomed to drink Wine, or strong Liquors, a Pint in 24. Hours; and I am well fatisfied, that Quantity is sufficient for Health, let their Cuftom have been what it will. Their Spirits may, indeed, flag and fink a little at first, for want of introducing Quicklime and Fire: But Low-spiritedness, in fuch a Case, I count no Disease; and bearing

bearing it for fome time, is bountifully recompenfed by the Health, Indolence, and Freedom of Spirits, they afterwards enjoy; not taking into Confideration, their being refcu'd from the Tyranny of fo immoral and mifchievous a Habit. It may be fufficient for those who are tender, fludious, or contemplative, to drink three Glasses of Water, with a Spoonful of Wine, at the great Meal: And as Sir W. Temple has it, One for your Self, another for your Friends, a third for good Humour, and a fourth for your Enemies, are more than fufficient after it.

§. XIII. A GREAT Miftake committed in this Affair, is, that most People think the only Remedy for Gluttony is Drunkennefs; or, that the Cure of a Surfeit of Meat is a Surfeit of Wine: Than which nothing can be more false, or contrary to Nature; for, 'tis lighting, as the Saying is, the Candle at both Ends. For, first of all, Wine, and all other strong Liquors, are as hard to digest, and require as much Labour of the concostive Powers, as strong Food itself. This is not only evident, with respect to People of weak Stomachs; but also from hence, that healthy

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healthy People, who drink only Water, or weak Small-beer, shall be able to cat and digeft almost double of what they could, did they drink frong Liquors at their Meals, as every one that pleafes may experience. Water is the only universal Diffolvent or Menstruum, and the most certain Diluter of all Bodies proper for Food; tho' there are a great many that spirituous Liquors not only will not diffolve, but will harden, and make more undigestible; especially the Salts of Bodies, wherein their active Qualities, that is, those which can do most Harm to human Constitutions, confist. And I have known Men of weak and tender Constitutions, who could neither eat nor digeft, upon drinking of Wine, who, by drinking at Meals common Water heated have recovered their Appetites and Digestion, have thriven and grown plump. 'Tis true, strong Liquors, by their Heat, and Stimulation on the Organs of Concoction, by increasing the Velocity of the Motion of the Fluids, and thereby quickening the other animal Functions, will carry off the Load that lies upon the Stomach, with more prefent Chearfulness: Yet, besides the future Damages of fuch a Quantity of Wine, to the Stomach. and

and to the *Fluids*, by its Heat and *In-flammation*, the *Food* is hurried into the Habit, *unconcoEted*; and lays a *Foundation* for a *Fever*, a Fit of the *Colic*, or fome *chronical* Difcafe.

§. XIV. ANOTHER Mistake I shall obferve, is the extreme Fondness Persons of the better Sort, here in England, have lately . run into, for the ftrong and high Country Wines. I can think of no Reafon for this, but the very honeft one the Vulgar give for drinking Brandy; That they get fooner drunk on it. For furely the middling lighter Wines inflame the animal Juices lefs, go more eafily off the Stomach, and afford more Room for long Converfation and Chearfulness. Exce/s in them gives lefs Pain, and is fooner remedied. But there are Degrees in this Matter. Nemo repente fuit turpissimus \*. They begin with the weaker Wines; thefe, by Use and Habit, will not do; they leave the Stomach fick and mawkift; they must fly to ftronger Wine, and ftronger still, and run the Climax †, through Brandy to Barbados Waters, and double-diffilled Spirits, till at last they can find nothing

\* Nobody becomes extremely bad all at once.
+ Rife higher by degrees.

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hot enough for them. People who have any Regard for their Health and Lives, ought to tremble at the first Cravings for fuch poifonous Liquors. Strong Waters should never be taken but by the Direction of a Physician, or in the Agonies of Death. For when Perfons arrive at that State, that they become necessary to their Ease and Freedom of Spirits, they may be justly reckoned among the Dead, both as to the fhort Time they have to live, and the little Ufe they can be of, either to Themfelves, or Mankind. I speak not here of those who are under an actual Fit of the Gout or Colic in the Stomach. [We must not die for fear of dying.] Nor am I recommending sour Verjuice, or unripe Wines; but I cannot help being well fatisfied, both from Reason and Experience, that the light Wines, of a moderate Strength, due Age, and full Maturity, are much preferable for Chearfulness and Converfation, much more wholfome for human Constitutions, and much more proper for Digestion, than the hot and strong Wines. The rich, ftrong, and heavy Wines ought never to be tasted without a sufficient .Dilution of Water; at least, they should be uied, like Brandy, or Spirits, for a Coi-

Cordial. \* Ad fummum tria pocula fume. Whatfoever is more, cometh of Sin, and must be diluted with the Waters of Repentance.

§. XV. I HAVE no Intention here to discourage the innocent Means of enlivening Conversation, promoting Friendship, comforting the forrowful Heart, and raifing the drooping Spirits, by the chearful Cup, and the focial Repast. Perhaps I may like the harmless Frolick, the warm Reception of a Friend, and even the Dulce Fureret itself, more than I ought : Perfons fober in the main will receive little Prejudice from fuch a Fillip, when the Occafions happen but feldom, and efpecially when they make it up, by a greater Degree of Abstinence afterwards : But a Sot is the lowest Character in Life. Did only the Profligate, the Scoundrel, the Abandon'd, run into these Excesses, it were in vain to endeavour to reclaim them, as it were to stop a Tempest, or calm a Storm. But now that the Vice is become epidemical, fince it has got not only among Mechanics and Tradefmen, but among Perfons of the

\* i.e. At most, to take but three small Glasses of such. + Horat. i, e. An agreeable Frolick or Extravagance.

8.8

brighteft

brighteft Genius, the fineft Tafte, and the most accomplished Parts; and (Oh, that I could give my Confeience the Lye, in mentioning them !) even among the first and least fallen Part of the Creation itfelf, and those of them too, of the most elegant Parts, and the strictest Virtue otherwife; and, which is ftill the most furprifing of all, even those too, who are in all other Refpects blamelefs; fince, I fay, the Cafe is fo, it will not be amifs to shew, to the Evidence of a Demonftration, the Folly, as well as the Fruitlessness, of such a Course. A Fit of the Colic, or of the Vapours, a Family Misfortune, a casual Disappointment, the Death of a Child, or of a Friend, with the Assistance of the Nurse, the Midwife, and the next Neighbour, often give Rife, and become the weighty Caufes of fo fatal an Effect. A little Lowness requires Drops, which pass readily down under the Notion of Phylic; Drops beget Drams, and Drams beget more Drams, till they come to be without Weight, and without Measure; fo that at last the miserable Creature suffers a true Martyrdom, between its natural Modesty, the great Neceffity of concealing its Craveings, and the ftill greater one, of getting them satisfied somehow. Higher and more fevere 1

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fevere Fits of Hysterics, Tremors, and Convulsions, begot by these, bring forth farther Necessiry, upon Necessity, of Drops, Drams, and Gills, till, at last, a kind Dropsy, nervous Convulsions, a nervous Atrophy, or a colliquative Diarrhæa, if not a Fever, or a Phrensy, set the poor Soul free. It has very often raifed in me the most melancholy Reflections, to see even the Virtuous, and the Senfible, bound in fuch Chains and Fetters, as nothing lefs than omnipotent Grace, or the unrelenting Grave, could release them: They were deaf to Reason and Medicine, to their own Experience, and even to the express Words of Scripture, that fays, the Drunkard shall not inherit the Kingdom of Heaven. Did this bewitching Poison actually cure or relive them from time to time, fomething might be faid, to extenuate the Folly and Phrenfy of fuch a Course: But, on the contrary, it heightens and enrages all their Symptoms and Sufferings ever afterwards, excepting the few Moments immediately after taking it down; and every Dram begets the Neceffity of two more, to cure the ill Effects of the first; and one Minute's Indolence they purchase with many Hours of greater Pain and Mifery, befides the making the Malady E 3

Malady more incurable. Low-spiritedness, in itself, is no Disease ; besides that there are Remedies in Art that will always relieve it, fo long as there is any Oil remaining in the Lamp; and 'tis in vain to try to raife the Dead : Exercise, Abstinence, and proper Evacuations, with Time and Patience, will continually make it tolerable; very often they will perfectly cure it. The running into Drams, is giving up the Whole at once; for neither Laudanum nor Arsenic will kill more certainly, although more quickly. The Pretence of its being Physic, or a prefent Remedy, is trifling. Cordials of any. Kind, even out of the Apothecaries Shops, are but Reprieves for a time, to gain a Respite, till proper and extirpating Remedies can take place; and are never to be used twice, the one immediately after the other, but in the laft Neceffity: And I can honeftly fay, I never failed of relieving, fo as to make Life tolerable, vapourish, bysterical, or. hypochondriacal Perfons, who would be governed in their Diet, by the Use of other proper Means, if there was a Fund in Life, and no incurable Discase, complicated with Lowness. Thus much the Weight of the Subject forced from me; more

more than this, its Disagreeableness hinders me to say.

§. XVI. NEXT to Drams, no Liquor deferves more to be fligmatized, and banished the Repasts of the Tender, Valetudinary, and Studious, than PUNCH. 'Tis a Composition of fuch Parts, as not one of them is *falutary* or kindly to fuch Constitutions, except the pure Element, in it. The principal Ingredient is Ram, Arrack, Brandy, or Malt Spirits, as they are called, all of them raifed by the Fire, from the fermented Juices of Plants brought from Southern Countries, or which have longest borne the Heat of the Sun in our own Climate: And 'tis observable, that every Thing that has passed the Fire, so that it has had due Time to divide and penetrate its Parts, as far as it poffibly can, retains a caustic, corrosive, and burning Quality ever afterwards. This is evident, from the fiery and burning Touch and Tafte of new-drawn Spirits, as also from the Burning of Lime-stone, which, tho' extinguish'd by boiling Water, does ever after retain its heating and drying Quality, as appears from the great Use of Limewater, in drying up all humid Sores, when given inwardly by itfelf, or compounded with E 4

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with *fudorific* Woods and Roots, and from its Success in outward Applications for the fame Purpofes. And tho' Time may, in fome measure, get the better of this, in its fenfible and obvious Operations; yet, fince Water is a groffer Body than Fire, or Flame, it never can penetrate it fo far, as quite to extinguish its inmost Heat; especially if we confider, that Spirits are but an Accumulation of fine Salts, and light Oil, compacted together into the fmallest Volume; the first whereof is fo hard and folid, as naturally to retain their Heat the longest, into which Water cannot enter ; the other, to wit, the Oil, is fo inflammable, that it most readily receives Heat and Fire, and defends the Salts from the Power of the Water over them. And, in the continued Distillation of Spirits, this Action of the Fire is fo ftrong, as to reduce them to liquid Flames at last, which will of themfelves evaporate in visible Flames and Fumes. The other principal Part of the Composition is the Juice of Oranges and Lemons. And if we confider, that a Lemon or Orange could never be transported half Seas over to us, without rotting or fpoiling, if gathered when wholly ripe, we fhould have no great Opinion of their Juices. Every Spanish or Portugal Merchant can inform

form us, that they must be gathered green, or at least a Month before they are ripe; else they are not fit to be sent beyond the Seas. The Sea Air, and their being thut up close, gives them that golden yellow Colour we so much admire. The Juice of a Crab-apple, of unripe Grapes, or Gooseberries, or even good Fuice of Sorrel, would come up, at least, to their Virtue of extinguishing the Heat of Spirits, if not to their Flavour. And how kindly a Guest fuch Juices would be to the fine Fibres of weak Stomachs and Bowels, I leave every one to judge. The Truth is, all fermenting Juices, fuch as these eminently are, must be highly injurious to weak Constitutions; for, meeting with the Crudities in the Bowels, they must raise a new Battle and Colluctation there, and fo must blow up the whole Cavities of the human Body, with acrid Fumes and Vapours, the great and fore Enemy of fuch Bowels. And in the West Indies, where, from the Necessity of drinking much, because of the Violence of the Heat, and from the Want of proper Liquors there, they are forced to drink much PUNCH, though Lemons and Oranges be in their full Perfection, they are univerfally afflicted with nervous and mortal Dry Belly-akes, Palfies, Cramps,

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Cramps, and Convulsions; which cut them off in a few Days, intirely owing to this poisonous Mixture.

THE Bath-water is the only Remedy in fuch Cafes, whither they all haften, if they can get thither alive. And here I have been informed of this Fact, by Men of the Profession, as well as their Patients, who univerfally ascribed them to their drinking of PUNCH, and Spirituous Liquors. If Acids must be had, without all peradventure, the vinous ones are the best and fafest. The Romans, tho' they had the vegetable Acids in Perfection, made very little Use of them but in Cookery, where the Quantity of the Poison was fo fmall, as not to do fufficient Harm to forbid their using them for the fake of the exquisite Relish they gave their Sauces; and the constant Drink of the lower Soldiery was Vinegar and Water, which they found of excellent Use, both as it prevented Fevers, Plagues, and Putrefaction, and also as it gave an Energy to the unactive Element, and hinder'd it from lodging in the Body. Hence also the great Use of Oxymel and Oxycrate, (that is, of Vinegar with Honey, and with Water) among all the antient Phylicians. And, indeed, whenever they

they preferibed an Acid, they very prudently join'd a Corrective with it, both to promote its good, and to prevent its bad Effects. The two remaining Ingredients are Sugar and Water; and these I will give up to the Punch-drinkers, and allow them all the Benefit of them they can bring to this Composition: Yet it will still have Malignity sufficient remaining, to be held in Deteftation (at least, for any great Use, or in any great Quantity; for some Poisons are so only by their Quan tity) by those tender and valetudinary Persons, who value Health and Life. The Strong, the Voluptuous, and the Abandoned, need no Advice; at least, they will take none. I could never fee any Temptation for any one in their Senfes to indulge in this Heathenish Liquor, but that it makes its Votaries the fooneft, and all of a fudden the deepeft, drunk; holds them longest in the Fit; and deprives them the most intirely of the Use of their Intellectual Faculties, and Bodily Organs, of any Liquor whatfoever. It is likest Opium, both in its Nature, and in the Manner of its Operation; and nearest Arsenic, in its deleterious and poisonous Qualities : And fo I leave it to them,

Who,

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Who, knowing this, will yet drink one, and die.

§. XVII. As to Malt Liquors, they are not much in Use, excepting Small-beer, with any but Mechanics and Fox-hunters. The French very justly call them Barleysoup. I am well fatisfied, a weak Stomach can as readily, and with lefs Pain, digest Pork, and Peafe-foup, as Torkshire or Nottingham Ale. They make excellent Birdlime, and, when simmer'd some time over a gentle Fire, make the most flicking and the best Plaister for old Strains, that can be contrived. Even the Small-beer that is commonly drank at London, if it be not well-boiled, very clear, and of a due Age, must be hurtful to Perfons of weak Nerves, and flow Digestion. For, fermenting again in the alimentary Chanels, it will fill the whole Cavities of the Body with windy Fumes and Vapours, which will at length play odd Pranks in a crazy Constitution. In fine, the Valetudinary, Studious, and Contemplative, must be contented with a Pint of middling light Wine a Day, one half with, and the other without Water.

§. XVIII. SINCE the Time foreign Luxury has been brought to its Perfection here, there there are a kind of Liquors in Use among the better Sort, which fome great Doctors. have condemn'd by Bell, Book, and Candle, and others have as extravagantly commended: I mean, Coffee, Tea, and Chocolate. For my own Part, I take all their Virtue to confift in Custom, and all their Harm in Excess. As to Coffee, it is a mere Calx, or a kind of burnt Horfebean, but lighter on the Stomach, and of somewhat a better Flavour. The Turks use it, and Opium, instead of Brandy. But the Plea that fome make for running into Excels in it, from this Mahometan Cuftom, is altogether weak and groundlefs; for those that do so there, fuffer by it, as we do here : And those that debauch in it, turn stupid, feeble, and paralytic, by it, efpecially when they join Opium with it, as they frequently do, as those who wallow in these do here; and are as much defpis'd and expos'd by ferious Perfons, as our Topers and Brandy-fwillers are here. A Difh or two of Coffee, with a little Milk to soften it, in raw or damp Weather, or on a waterifb and phlegmatic Stomach, is not only innocent, but a present Relief. But 'tis as ridiculous, and perhaps more hurtful, at least in thin and dry Habits, to dabble in it two or three times every Day, as

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as it would be for fuch to drink nothing but scalding Lime-water. There are two Kinds of Tea in Use, Green and Bohea. Mr. Cunningham, who lived feveral Years in China, a very learned and accurate Perfon \*, informs us, that they are both gathered from the fame Shrub, but at different Seafons of the Year; and that the Bohea is gather'd in the Spring, and is dried in the Sun, the Green at the Fire. But I suspect, and not without Authority, that, befides these Differences in drying, some Infusion of another Plant, or Earth, (perhaps fuch a one as that of Japan-earth, or Catechu) must be pour'd on some Sorts of Bohea Tea, to give it the Softness, Flavour and Heaviness on the Stomach it has; whereby it becomes a mere Drug, and wants the natural Simplicity of Green Tea, which, when light, and drank neither too ftrong, nor too hot, I take to be a very proper Diluent, when foften'd with a little Milk, to cleanse the alimentary Paffages, and wash off the fcorbutic and urinous Salts, for a Breakfast, to those who live full and free : as also it, or Tea made of a flic'd Orange or Lemon, is one of the best Promoters of Digestion

\* Vide Phil. Collect.

after

after a full Meal, or when one is a-dry between Meals, and much more fafe and effectual than Drams, or ftrong Cordials, which are commonly used for that Purpofe. Some Perfons of weak, tender Nerves, fall into Lownels and Trembling, upon using either of these Liquors with any Freedom, from their too great Quantity, or their Irritation on the tender and delicate Fibres of the Stomach. Such ought carefully to avoid and abftain from them, as from Drams and Drops. But I can never be of their Opinion, who afcribe the Frequency of Scurvy, Vapours, Low Spiritedness, and nervous Diffempers now, to what they were in the Days of our Forefathers, to the Cuftom of drinking more frequently and freely of these foreign Infusions. The Caufe is not adequate to the Effect, nor, indeed, has any Analogy to, or Connexion with it. We know that warm Water will, most of any thing, promote and affift Digestion in weak Stomachs, and tender Nerves; and by this alone I have feen feveral fuch Perfons recover to a Miracle, when cold Mineral Waters, Bitters, Cordials, and Drams, have done rather Hurt than Good. And Tea is but an Infusion in Water of an innocent Plant : Innocent, I say, because we find, by

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by its Tafte, it has neither poisonous, deleterious, nor acrimonious Qualities; and we are certain, from its Use in the Countries it comes from, (which are larger than most of Europe) that they receive no Damage from it, but, on the contrary, that it promotes both Digestion and Perspiration. The Argument, from its relaxing the Coats of the Stomach and Bowels by its Heat, is of no Force: For, unless it be drank much hotter than the Blood itself, it can do no Hurt that way: And we fee the Bath Guides, who dabble in Water almost as hot as Tea is ever drank, a great Part of the Day, and for one half of the Year at least, are no ways injured by it, except when they drink strong Liquors too freely, to quench the Thirst it raises. However, I should advise those who drink Tea plentifully, not to drink it much hotter than Bloodwarm; whereby they will receive all its Benefit, and be secure against all the Harm it can possibly do. As to Chocolate, I am of Opinion, it is too hot and heavy for valetudinary Perfons, and those of weak Nerves. I have before obferved, that Nuts pass through the alimentary Paffages untouch'd; and though they may part with fome of their more volatile Particles, yet I doubt if they can afford much

much Nourishment to Persons of weak Digestions. Some fay, Chocolate gives them an Appetite; the Meaning of which may be, that, when they have a good Appetite for their Breakfast, it is not unlikely it may continue all the Day: But I am of Opinion, 'tis a false and hysterical Appetite, fuch as fharp Wines and fharp Humours in the Stomach give. For fat and oily Things, fuch as all Nuts are, are hard to digeft, and lie long in the Stomach, for Reafons I have already explain'd: It may lubricate and fheath against the Irritation of falt and sharp Humours in the Bowels, and therefore may be good in the Colics and Gravel of those of strong and stout Digestion; but can never be good Food for those of weak Nerves, and poor Constitutions. Nothing is fo light and eafy to the Stomach, most certainly, as the farinaceous or mealy Vegetables, fuch as Peafe, Beans, Millet, Oats, Barley, Rye, Wheat, Sago, Rice, Potatoes, and the like; of fome of which on Milk or Water, I should ever advise the Valetudinary, and those of weak Nerves, to make their two leffer or fecondary Meals. Tobacco is another foreign Weed, much in Use here in Britain; though not among the best, yet among the middle and inferior Ranks of the People: For those of gross and phlegmatic Constitutions, F

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tutions, who abound in serous and watry Humours, who are subject to Coughs, Catarrhs, and afthmatic Indispositions, who labour under violent Tooth-achs, or are troubled with Rheums in their Eyes, who have cold and waterif Stomachs, and live fully and freely, both Smoking and Chewing is a very beneficial Evacuation, drawing off superfluous Humours, Crudities, and cold Phlegm, provided they carefully avoid swallowing the Smoak, or the Juice, and drink nothing, but rinfe their Mouths with some watry Liquor after it, and spit it out. But to thin, meagre, and hectic Constitutions, it is highly pernicious and destructive, heating their Blood, drying their Solids, and defrauding the Food of that Saliva, which is fo abfolutely neceffary towards Concoction. Snuffing the Leaves, or the groffer Cut, in a Morning, will readily promote a Flux of Rheum by the Glands of the Nofe, and will be of good Use, to clear the Head and the Eyes. But the ridiculous Cuftom, of perpetually fucking in *jophisticated* Powders, and other foreign Drugs fold for Snuff, cannot but be prejudicial both to the Eyes, and even to the Stomach; at least, if we believe the Reports of those who say, they have brought it up from thence.

§. XIX.

§. XIX. I HAVE endeavour'd to affift the Reader with fome Observations and Reflections, to enable him towards determining the Quantity and Quality of his folid Food, neceffary either to prevent or cure chronical Distempers. It may not be amifs here, to make fome Reflections alfo on the fit Proportion of Drink proper for that Purpose: As the Food is, fo must that be, various and uncertain, with regard to the Age, Size, Labour, and Constitution of the Person, and the Season of the Year. I have offer'd to limit the Quantity of ftrong Liquors, fittest to preferve Health, and lengthen out Life in general, to a Pound or Pint, and that of the middling Kind. But the Sickly, the Aged, and those who would cure the chronical Distemper, must even abate of this Quantity. The only remaining Question is, about the Quantity of Water, or watry Liquors, proper to be mix'd with this strong Liquor, or drank by itself: For in this also, though in itself harmless and innocent, yet there is a Choice and Preference; because too much Water will only ferve to diftend and fwell up the Veffels, and wash off some of the finer and more nutritious Parts of the Chyle; and too little will not be fufficient to dilute the folid Food, or to make the Chyle F 2 thin

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thin and fluid enough, to circulate through the fine and small Veffels. I will suppose my Patient to deal in no other Cookery, but Roasting and Boiling, and that he eats only fresh Meat. Boiling animal Food draws more of the rank, strong Juices from it, and leaves it less nutritive, more diluted, lighter, and easier of Digestion. Roasting, on the other hand, leaves it fuller of the strong nutritive Juices, harder to digest, and wanting more Dilution : Those, therefore, who must have fullgrown and adult animal Food, ought to cat it boiled, and well boiled too, if their Digeftion be but weak. They who can live on young animal Food, (which is beft for weak Stomachs) ought to eat it roasted; but must lessen the Quantity, in respect of the fame Food boiled; but they must dilute it more: For, as roast Meat has a better Flavour, and more Nourishment, so it lies less flabby on the Stomach, and does not fo readily *flip* from, or difappoint the Action of Grinding, which has some Share in Digestions, both primary and subsequent : But it will want more Dilution with a watry Menstruum, to soften its more rigid and crifp Fibres. If therefore the whole Weight of the folid Food, in twenty-four Hours, be supposed a Pound and a Half, then three Pounds of Liquor, that

that is, one of ftrong Liquor, and two of fome aqueous Fluid, will, in a Medium, be fufficient to dilute it abundantly. For thus there will be two Particles of a Fluid, to one folid Particle; which, abating the folid Parts thrown off by Siege, will fuffice to make the Chyle abundantly thin, to circulate through all the fine Chanels, whofe Diameters are larger than that of the folid Particle, the principal End of its Thinness and Fluidity. More than this would but distend the Veffels, and carry off the finer Parts of the Chyle by Water or Perspiration; for we constantly find both these increased by an Over-dose of Fluids; and lefs would not fufficiently dilute their Food. I should advise those therefore, who have weak Stomachs, or relaxed Nerves, to mix their Wine with the above-named Quantity of boiled Water, with a burnt Crust, at least Bloodwarm, and to drink it after their Meal is over, if they can do it with Eafe, rather than in the time of Eating: For the more fpirituous and most nourishing Parts of the Food will readily run off, without much Dilution; and it will be the groffer and harder remaining Part, that will want it moft. And if, some time after their great Meal, they find their Stomach loaded, the Food rifing, hard Belching, Heart-burning, F 3

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or much Tawning, to fwill down and dilute it with Milk-warm, light Green-tea, or warm Water, rather than to run to Drams and Cordials, the ufual, but most pernicious Antidote in fuch Cafes: And upon great and heavy Oppreffion, much Trouble and great Struggle in the Digeftion, to have recourse to Carduus or Chamomileflower Tea, to bring it up, rather than to trespass in these poisonous and caustic Liquors, which, though they may at prefent leffen the Suffering, and hurry on the first Concoction; yet make them dearly pay for it, when the unconcocted Load of Crudities comes to pass, by Siege or Perspiration, either in Colics, Gripes, Vapours, and Oppression of Spirits, or by a general Difability, and rheumatic Stitches and Pains.

§. XX. UPON the Head of Cordials, mention'd in one of the foregoing Articles, I cannot forbear fetting down one, whofe Virtues and Efficacy I have long tried, and have never found it fail, when any thing would fucceed: And I recommend it (to be kept by them) to all those who are liable to low Spirits, Faintings, Oppress, Sickness at the Stomach, Head-achs, and Vapours; and also to those, who, wanting to exert themselves in any Business of Confequence, need a Flow of Spirits for fome

fome fhort Time, for that Purpofe; or indeed, upon any fudden Accident arifing of its own accord, out of the *Habit* itfelf: I think it a kind of an *univerfal Remedy*, but never to be used but upon fuch Occafions; because Use may weaken it, if not extinguish its Virtue. 'Tis thus:

TAKE of fimple Chamomile-flower-water, fix Ounces; Compound Gentian, and Wormwood-waters, each an Ounce and an half; Compound Spirit of Lavender, Sal Volatile, Tin-Eture of Castor, and Gum Ammoniac, diffolved in fome fimple Water, each two Drachms; Tincture of Snakeweed, and Tincture of the Species Diambræ, each a Drachm; the Chymical Oils of Lavender, Juniper, and Nutmeg, each ten Drops, mix'd with a Bit of the Yolk of an Egg, to make the Whole uniform; Afafætida and Camphire in a Rag, each half a Drachm: But these may be left out by those to whom they are difagreeable.

Two, three, or four Spoonfuls of this, is a prefent Help in fuch Cafes. It will keep fix Months good.

General

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General Rules for HEALTH and LONGLIFE, drawn from the Head of MEAT and DRINK.

I. HE great Rule of Eating and Drinking for Health, is to adjust the Quality and Quantity of our Food to our digestive Powers. The Quality may be judged by the following Rules.

2. THOSE Substances that confift of the groffest Parts, are hardest of Digestion; the constituent Particles coming into more Contacts, and consequently adhering more firmly.

3. THESE Substances, whole Parts are brought together with the greatest Force, cohere proportionably closer, than those that come together with a smaller \* Momentum.

4. SALTS are very hard to be feparated, because united by plain Surfaces, under which they are always comprehended. And in the last Stages of the Circulation, where it is flower, shoot readily into larger Clusters, and so are harder to be driven out of the Habit. From these, we may casely infer, that (1.) Those Vegetables and Animals that come soonest to their full Growth, are easier of Digestion, than those that are longer of attaining

\* i.e. Force.

the

the State of Maturity. (2.) Those that are the *smallest* of their Kind, than the biggest. (3.) Those of a dry, fleshy, and , fibrous Substance, than the oily, fat, and glutinous. (4.) Those of a white Substance, than those of a more flaming Colour. (5.) Those of a mild, foft, and fweet, than those of a strong, poignant, aromatical, or hot Tafte. (6.) Land Animals, than Sea Animals. (7.) Those Animals that live on Vegetables, or other light Food, than those that live on other Animals, or hard and heavy Food. (8.) The Nourishment Nature has appointed for young Animals, is lighter than the Flesh of these Animals themselves.

5. ALL cramm'd Poultry and Stall-fed Cattle, and even Vegetables forced by Hotbeds, tend more to Putrefaction, and, confequently, are more unfit for human Food, than those brought up in the natural manner.

6. PLAIN-DRESSED Food is easier of Digestion, than what is pickled, salted, baked, smoked, or any way high-seasoned.

7. STRONG Men, those of large Stature, and much Labour, and the Inhabitants of a cold and clear Air, require more Food than Women, Children, the Weak, the Sedentary and the Aged, and those that live in a warmer Climate, or groffer Air. 8. No-

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8. NOTHING conduces more to Health and Long Life, than Abstinence and plain Food, with due Labour.

9. WHERE Exercife is wanting, as in *ftudious* Perfons, there is the greater Need of *Abstinence*; for these, 8 *Ounces* of *animal*, and 12 of *vegetable* Food, in 24 Hours, is sufficient.

10. MOST chronical Difeases proceed from Repletion; as appears from their being cured by Evacuation.

II. TENDER Perfons ought to use as much *Abstinence* as they possibly can: And, if they neglect it, their only Relief is from frequent *stomachic* and *Family Purges*.

12. A PLAIN Rule for judging of the Quantity, is, not to cat fo much as indisposes for Business.

13. A MORE *fensible* and *readier* one, is, first, by *Experience* to find out how much fits one, so as to be *lightfome* and *healthy* under it; and ever after to judge the *Quantity* by the *Eye*; *Nature* requireing therein no *mathematical* Exactnes.

14. PORK and Fish are not fit Food for the Studious and the Tender.

15. WATER is the most natural and wholfome of all *Drinks*, quickens the Appetite, and strengthens the *Digestion* most.

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16. STRONG

16. STRONG and *spirituous* Liquors, freely indulged, become a certain, tho' a flow *Poifon*.

17. THERE is no Danger in leaving them off all at once; the Plea for continuing them being falle and groundlefs.

18. THE best strong Liquor for weak and studious People, is Wine; the best Quantity, a Pint in 24. Houts; and the best way of drinking it is, three Glasses with, and three without Water.

19. THE middling, light Wines, fully ripe, and of a due Age, are preferable to the firong Wines.

20. STRONG Liquors do not prevent the Mischiefs of a Surfeit, nor carry it off so fafely as Water, tho' they seem to give present Relief.

21. THE ftequent Use of Spirits, in Drams and Cordials, is so far from curing Low-spiritedness, that it increases it, and brings on more fatal Disorders.

22. AND even when they are diluted with Water, in PUNCH, the Quantity taken down at once, and the Addition of a corroding *Acid*, produce equally *pernicious* Effects in human Conftitutions.

23. MALT Liquors (excepting clear Small-beer of a due Age) are extremely hurtful to *tender* and *ftudious* Persons.

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24. COFFEE is only an Infusion of a kind of Calx, and has the Effects of an absorbent Medicine; and so may be of some Service to watry Stomachs, if moderately used.

25. GREEN Tea is a good Diluter of the Food, as it is an agreeable, warm, *fmall* Liquor: Bnt Bohea is too heavy for the Stomach.

26. CHOCOLATE (as all Nuts elfe) is fo heavy and hard of Digestion, that it can never be fit for the Stomachs of weak and tender People.

27. SMOKING Tobacco, without drinking after it, chewing or fnuffing the grofs-cut Leaf in the Morning, are useful to phlegmatic Conflictutions; but to dry and lean Habits they are pernicious. Snuff is just good for nothing at all.

28. THE proper Quantity of watry Liquors in 24 Hours, to those that live regularly, is two Pints (as that of strong Liquor is one Pint); which is best drank warm, and rather after, than in the time of Eating.

29. THE Form of a Cordial fit to be kept in private Families, as a prefent and certain Relief, for fudden Qualms, Faintnefs, Sicknefs, or low Spirits; but never to be taken but in cafe of Neceffity.

CHAP,



#### CHAP. III.

#### Of SLEEPING and WATCHING.

§. I. THE next general Head in Order, is our Sleeping and Watching. All Bodies, by their Actions upon one another, and by the Action of the circumambient Bodies, are liable to be impaired and wafted: And all animal Bodies, from an active and felf-moving Principle within them, as well as from the Rubs of Bodies without them, are constantly throwing off fome of their superfluous and decayed Parts; fo that animal Bodies are in a perpetual Flux. To reftore this Decay and Wasting of animal Bodies, Nature has wifely made alternate Periods of Labour and Rest, Sleeping and Watching, necessary to our Being; the one for the active Employments of Life, to provide for, and take in, the Materials of our Nourisbment; the other, to apply those Materials to the proper wasted Parts, and to supply the

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the Expences of Living. And it feems as improper, in the Order of Nature, to disturb the animal Functions in the time of Sleep, by any other Employment, than that of the secondary Concoctions, (as they are called) i. e. the applying the Nourifhment to the decayed Parts, to recruit, the Blood, perfect the Secretions, and to lay up Plenty of Spirits, or (to fpeak more philosophically) to reftore the weakened Tone of nervous Fibres; that is, in short, to restore the Decays of Watchings and Action : This, I fay, is as improper, as it would be (were it poffible) to eat or drink, or make Provision for the Necessities of Life, in the time of Sleeping. From hence is evident, the Absurdity of heavy, various, and luxurious Suppers, or of going to Reft till many Hours after fuch a Meal; which must otherwise break in upon the Order of Nature, and the due and appointed Times of Sleeping and Watching. Wherefore I advise the Valetudinary, the Studious, and the Contemplative, either to make no Suppers, or only of vegetable Food, and to take a due Time for Watching after them.

§. II. THERE is nothing more certain, than that (abstracting from *acute* Cases) our

our Sleep is found, fweet, and refreshing, according as the alimentary Organs are eafy, quiet, and clean. If any one, not fuffering under any Disease, is disturbed in his Sleep, 'tis certain his Stomach is filled with Food, or Crudities; or his Guts filled with Wind, Choler, or Superfluous Chyle : And those reftles Nights, and the Difficulty of going to fleep, which are generally ascribed to Vapours, are intirely owing to these Causes; though they be not fo frong, as to become fenfible; for then Pain is added to Watching, and they are felt. And, upon Complaints of fuch reftless Nights, I never once failed, upon Inquiry, of finding the true Caufe in the Diet of the preceding Day, or of fome few Days before; and conftantly have difcovered, that fome Error in Eating and Drinking, either in Quantity or Quality, has produced them. I have been aftonished to see hypochondriacal and hysterical People reftless all Night, toffing and tumbling till towards Morning, then dropping afleep till late Hours, awake heavy, oppressed, and unrefreshed, complain of being Hag-ridden, tired, and wearied, as if they had been whipp'd, spurr'd, lashed, and beaten thro' all the Watches of the Nights; rife with foul Mouths, and white Tongues, Belchings, Yawn-

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Yawnings, Coughing, Spitting, or Reaching and Heaving, without Appetite, or Spirits of Life, all the Day-time ; begin to live and breathe, become chearful and hungry about ten, eleven, or twelve o'Clock at Night; eat a hearty, various, and luxurious Supper, drink a chearuping Cup of the beft, become as merry as Crickets, and long to fit up later; at laft, tumble to Bed, and repeat the fame Farce over again. The Reason of all this Complaint, is the Load on the Stomach, that will not fuffer them to reft, till 'tis got off. The fharp and crude Humours, twitching and twinging the nervous Fibres and Coats of the Bowels, become like fo many Needles and Pins constantly running through them, though not always with fensible Pain : The unconcocted Chyle, ftopping or circulating flowly, first in the Bowels, then in the smallest Vessels, begets these Convulsions, Flatus, Night-mares, and Oppressions of Spirits. So that the fecondary Digeftions are not over till next Evening (hence their want of Appetite): And, when these are finished, their Stomachs come, and their Spirits flow; and thus the perpetual Round is carried on. Did they but follow the Dictates of Nature, go to Bed for some Days with a light vegetable,

or no Supper at all, and bear the Inconveniencies thence arifing; their Appetites would come in due Seafon, and they would quickly find the Truth of the Aphorifm of the Schola Salernitana;

#### \* Somnus ut sit levis, fit tibi Cæna brevis.

§. III. THE Seafons for Sleeping and Watching, which Nature feems to point out to us, at least in these our Climates near the Tropic, are the Vicifitudes of Day and Night. Those Damps, Vapours, and Exhalations, that are drawn up into the higher Regions, and are fo rarefied by the Heat and Action of the Sun, as to become innocent, or very weak, in the Day-time; are condensed, sink low, near the Surface of the Earth, and are perpetually dropping down in the Night-feafon; and confequently must be injurious to those tender Persons that unnaturally watch in that Seafon; and must necessarily obstruct the Perspiration, which the Activity of Watching, and the Motion of Labour, promotes. I have already shewn, that our Bodies fuck and

\* i.e. That your Sleep may be sweet, let your Supper be light.

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draw into them the good or bad Qualities of the circumambient Air, through the Mouths of all the perspiratory Ducts of the Skin. And, if we were to view an animal Body with a proper Glass, it would appear with an Atmosphere quite round it, like the Steam of a boiling Pot. Now we may eafily conceive, what Injury a Constitution may receive, not only by flopping fuch a perpetual - Difcharge of Superfluities, but also by forceing into the Habit, by the Air's Weight and Pressure, those noxious Fumes and Vapours, that are perpetually falling near the Surface of the Earth, in the Nighttime. Your true Topers are so fensible of this, that, by Observation, they have gather'd it to be more fafe for their Health, and better for prolonging their Lives, to get drunk betimes and go to Bed, than to fit up and be fober.

§. IV. ON the contrary, the Heat of the Sun in the Day-time, by its Action on human Bodies, the very Light, and free Air, and the Motions of Things about us, diffurbing the Quiet of the Air, must necessarily diforder the equable Course of the Perspiration, the Tenour of the secondary Concoctions, and the Tranquillity of the Spirits, fo necessary to Rest and Quiet.

Quiet. So that nothing feems more directly pointed out to us by Nature, than the Day for Labour, and the Night for Reft; and this, without taking in the Confideration of the Neceffity of the Sun's Light for the End of Labour, and providing the Necessaries of Life. Some Animals, that are exceeding tender, are directed by Nature to alternate Periods of Watching and Reft, not twice in twentyfour Hours, but twice in the Year; viz. Summer and Winter; fuch as Swallows, Bats, and many Sorts of Infects, which fleep all the Winter, and watch all the Summer. So confiftent is Nature, in appointing the brightest and most enlightened Parts of our Lives for Action, and the darkest and most inclement for Rest. Not but that robust Constitutions (as well as Animals fitted by Nature for different ways of living) may, by Cuftom, get the better of these natural Appointments : But I write for the Valetudinary, the Studious, and the Contemplative.

§. V. I ADVISE all fuch, if they would preferve their Health, and lengthen out their Days, to avoid, as much as is possible, evening Dews, nocturnal Studies, and unseasonable Watching; in Summer, to goto Bed with the Sun; and in Winter, to rife G 2

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rife at least by Break of Day. Those who live temperately, will neceffarily sleep but little : But, to recompense that, their Sleep will be much more sound, refreshing, and fruitful of Chearfulness and free Spirits, than that of those who live more freely. For, as I have before faid, the Quantity of Sleep will always be in proportion to the Quantity of Eating and Drinking. Valetudinary, studious, and contemplative People ought to go to Bed by Eight, Nine, or Ten at farthest, and rife by Four, Five, or Six, by which they will have eight Hours a-bed; and that is fufficient for any Perfon not under an acute, or the sharp Fits of a chronical Diftemper.

§. VI. NOTHING can be more prejudicial to tender Conflitutions, ftudious and contemplative Perfons, than lying long a-bed, or lolling and foaking in Sheets, any time after one is diffinctly awake, or has flept a due and reafonable time: It unneceffarily thickens the Juices, enervates the Solids, and weakens the Conflitution. A free, open Air, is a kind of a cold Bath, efpecially after rifing out of a warm Bed; and confequently makes the Circulation brisker, and more complete; and braces up the Solids, which lying a-bed diffolves and foaks

foaks in Moisture. The erect Posture, and the Activity, of Watching make the Perspiration more plentiful, and the gross Evacuations more readily thrown off. This is evident from the Appetite and Hunger, those that rife early feel, beyond that which they get by lying long a-bed. Add to all these the Influence of the fresh, benign Morning Air, the retreating of all the noxious Damps and Vapours of the Night, together with the Clouds and Heaviness that are thrown upon the Brain from Sleep; and, lastly, that Chear. fulness and Alacrity that is felt by the Approach or Prefence of that giorious Luminary the Sun, which adds a new Force to the Heart, and a Spur to the Spirits.

§. VII. ALL Nations and Ages have agreed, that the Morning Seafon is the proper Time for speculative Studies, and those Employments that most require the Faculties of the Mind. For then the Stock of the Spirits is undiminished, and in its greatest Plenty; the Head is clear and serene; the Passions are quieted and forgot; the Anxiety and Inquietude that the Digestions beget in the nervous Syftem, in most tender Constitutions, and the Hurry the Spirits are under after the great G 3 Meal,

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Meal, are settled and wrought off. I fhould advise therefore those who are of a weak relaxed State of Nerves, who are fubject to hypochondriacal or hysterical Diforders, whofe Professions lead them to much Use of their intellectual Faculties, or who would indulge speculative Studies, to go early to Bed, and to rife betimes; to employ the Morning Hours in these Exercises till Eleven o' Clock; then to take some agreeable Breakfast of vegetable Food; to go on with their Studies and Professions till Three, Four, or Five, as their Spirits will hold out; and then to take their great Meal of animal Food; all the reft of the Day to throw off all Study and Thought, divert themfelves agreeably in some innocent Amusement, with some gentle bodily Exercise; and, as soon as the Digestion is over, to retire and provide for going to Bed, without any farther Supplies, except it be a Glass of fair Water, or warm Sack-whey. But the Aged and Sickly must go sooner to Bed, and lie longer ; because Age and Sickness break Reft, and the fliffen'd and hardened Limbs of the Antient become more pliant and relaxed by much Sleep, a supine Posture, and the Warmth of the Bed.

Rules

Rules for HEALTH and LONGLIFE, drawn from the Head of SLEEP and WATCHING.

I. HE Valetudinary, the Sedentary, and the Studious, fhould eat very light, or no Supper; if any, it ought to be vegetable Food; neither ought they to go foon to Bed after any Supper whatfoever.

2. GOING to Bed on a full Stomach, and Wind and Crudities fomewhere in the alimentary Paffages, is the Caufe of the want of due Rest, which is sound and refreshing, always in proportion to the Emptines and Cleanness of these Passages, and their Vacation from their proper Office of Digestion: And this is the Cause of the want of kindly and refreshing Rest, in hypochondriacal and hysterical People.

3. WATCHING by Night, and Sleeping by Day, is of the most pernicious Confequence to Health and Long Life; and plainly contrary to the Indications of Nature, and the Constitutions of our Bodies.

4. THE Valetudinary, Sedentary, and Studious, ought carefully to avoid evening Dews, nocturnal Studies, and unfeafonable Watching; go to Bed by Eight, G 4. Nine,

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Nine, or Ten, and rife proportionably by Four, Five, or Six, unless actually under a Fit of Sickness.

5. NOTHING is more prejudicial to tender Constitutions, than lying long a-bed, indulging a lethargical and drowfy Sleep, or lolling or loitering awake; as appears by their Heaviness, and want of Appetite, upon doing fo; and their good Stomachs, Chearfulness, and Freedom of Spirits, when they rife early.

6. THE most advantageous manner for the Tender, Sedentary, and Studious, to bestow their Time, on account both of, their Health and Studies, is to go early to Bed, rife betimes, go about their Studiestill Eleven, taking a light vegetable Breakfast; profecute them till about Four in the Afternoon; then to take their great Meal of animal Food; and after that to employ the reft of their Time in some innocent Amusement, or gentle bodily Exercise; to retire betimes, to prepare for going to Bed, taking no farther Nournishment, except a Draught of Water, or warm Sack-whey, which will be particularly ufeful to those who labour under Stone and Gravel.

JESSARS, and unled.

181000.

CHAP.



#### CHAP. IV.

#### Of EXERCISE and QUIET.

§. I. E proceed, in the next, Place, to the Confideration of Exercise and Quiet, the due Regulation of which is almost as neceffary to Health and Long Life, as Food itself. Whether we were so made before the Fall, as to live in intire Health, in a rigidly fedentary and contemplative Life, is a Speculation of no great Consequence, nor eafily determined in our present Situation; for there is no certain Analogy between Things as they now are, and as they might have been then. As there happen'd an intire Revolution in the Complexion and Qualities of the Minds of the First Pair; fo, to me, there appear to be evident Indications of a defigned Change and Alteration of the material World, and the Nature of the Animals and Vegetables which fubfilt on this Globe, from what they were when Gop pronounced every Thing

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Thing Good that He had made. Nor feem the Celestial Bodies to have escaped, fo far as they regard us. Whatever be in this, the Paffage where GOD tells Adam, \* That in the Sweat of his Brow he shall eat Bread, seems to be the Injunction of a falutary Penance; that is, Not merely a Punishment, but also a Remedy against the Diforders his Body would be liable to in this new State of the Creation, and against the poisonous Effects of the Forbidden Tree he had eaten the Fruit of. I am the more confirmed in this Belief, that I observe the absolute Neceffity of Labour and Exercife, to preferve the Body any time in due Plight, to maintain Health, and lengthen out Life. For, let whatsoever Diet be purfued, however adjusted, both in Quantity and Quality; let whatever Evacuations be used to leffen the Malady, or any + Succedaneum be proposed, to prevent the ill Effects; our Bodies are fo made, and the animal Oeconomy now fo contrived, that, without due Labour and Exercise, the Juices will thicken, the

\* Gen. chap. iii. ver. 19. † i.e. Equivalent.

Foints

Joints will stiffen, the Nerves will relax; and, on these Diforders, chronical Diftempers, and a crazy old Age, must enfue. Nor is this neceflary only in the colder Climates, and where the Food is grofs, but even in the warmest Climates, and where the Food is lightest. For, though the Warmth of the Air may keep the Perspiration free and open, or rather, where it is very great, promote Sweating; yet, at the fame time, and by Confequence, it will thicken the Fluids, and relax the Fibres; to prevent both which, Exercise is absolutely necessary : but in fuch a Climate it ought to be gone about in the Cool of the Day. And tho' light Food may, in a great measure, prevent the Thickening of the Fluids, yet it cannot do it sufficiently without Exercise; nor can it at all keep the Fibres in due Tenfion; for to that Purpose Exercise is absolutely neceffary. Nay, the joint Power of warm Air, and light Food, cannot fupply the Place of Exercise, in keeping the Joints pliant and moveable, and preferving them from growing refty and stiff.

§. II. I HAVE fometimes also indulg'd a Conjecture, that animal Food, and made or artificial Liquors, in the original I Frame

Frame of our Nature, and Defign of our Creation, were not intended for human Creatures. They feem to me, neither to have these strong and fit Organs for digesting them, (at least fuch as Birds and Beasts of Prey have, who live on Flesh); nor, naturally, to have those voracious and brutish Appetites, that require animal Food, and firong Liquors, to fatisfy them; nor those cruel and hard Hearts, or those diabolical Paffions, which could eafily fuffer them to tear and deftroy their Fellow Creatures; at least, not in the first and early Ages, before every Man had corrupted his Way, and GOD was forced to exterminate the whole Race, by an universal Deluge, and was also obliged (that the Globe of the Earth might not, from the long Lives of its Inhabitants, become a Hell, and a Habitation for incarnate Devils) to shorten their Lives from 900 or 1000 Years, to 70. He wifely forefaw, that animal Food, and artificial Liquors, would naturally contribute towards this End; and indulged, or permitted, the Generation that was to plant the Earth again after the Flood, the Use of these for Food; knowing that though it would fhorten the Lives, and plait a Scourge of Thorns for the Backs, of

of the Lazy and Voluptuous, it would be cautioufly avoided by those who knew it was their Duty and Happiness to keep their Passions low, and their Appetites in Subjection. And this very Ara of the Flood is that mentioned in Holy Writ, for the Indulgence of animal Food, and artificial Liquors, after the Trial had been made, how infufficient alone a vegetable Diet (which was the first Food appointed for human Kind, immediately after their Creation) was, in the long Lives of Men, to restrain their Wickedness and Malice; and after finding, that nothing but shortening their Duration could possibly prevent the Evil. 'Tis true, there is scarce a Possibility of preventing the deftroying of animal Life, as Things are now constituted, since Insects breed and neftle in the very Vegetables. themselves; and we scarce ever devour a Plant or Root, wherein we do not destroy innumerable Animalcules. But, besides what I have faid, of Nature's being quite altered and changed from what was originally intended, there is a great Difference between destroying and extinguisbing an animal Life (which otherwife might fubfift many Years) by Choice and Election, to gratify our Appetites, and

and indulge Concupiscence; and the cafual and unavoidable crushing of those, who perhaps, otherwife, would die within the Day, or at most, the Year, and obtain but an inferior kind of Existence and Life at beft. Whatever be in this Conjecture, 'tis evident to those who understand the animal Oeconomy, and the Frame of human Bodies, together with the History, both of those who have lived abstemiously, and of those who have lived freely, that indulging in Flefb-meats, and strong Liquors, inflames the Passions, and Mortens Life, begets chronical Distempers, and a decrepit Age, as the History of the Life of Cornaro manifests to a Demonfration.

§. III. OF all the Exercises that are or may be used for Health, (such as Walking, Riding a Horseback, or in a Coach, Fencing, Dancing, playing at Billiards, Bowls, or Tennis, Digging, working at a Pump, Ringing a dumb Bell, &c.) Walking is the most natural, as it would be also the most nstural, as it would be also the most nstural, if it did not spend too much of the Spirits of the Weakly. Riding is certainly the most manly, the most healthy, and the least laborious and expensive of Spirits, of any; shaking the whole

whole Machine, promoting an universal Perspiration and Secretion of all the Fluids, (to which may be added, the various Changes of the Air, thro' which they fo quickly pass, every Alteration of which becomes, as it were, a new Bath) and thereby varioufly twitching the nervous Fibres, to brace and contract them, as the new Scenes amuse the Mind. Those who cannot ride, must be carried in a Coach or Litter, which is the best Exercise for the Lame and Crazy, and the only one proper for old and decrepit Perfons, as well as those that are fo young, that they are not able to manage their own Exercise. The Home Exercifes, fuch as playing at Tennis and Billiards, Dancing, Fencing, and the like, ought to be follow'd only when the Seafon forbids being Abroad; for being in the Air, contributes much towards the Benefit of Exercise. 'Tis beautiful to observe that earnest Desire, planted by Nature, in young Persons, to ramp, jump, wreftle, and run, and constantly to be pursuing Exercises, and bodily Diversions, that require Labour, even till they are ready to drop down, efpecially the healthier Sort of them: So that fitting, or being confined, seems to be the greateft

greatest Punishment they can fuffer; and imprisoning them for some time, will much more readily correct them, than whipping. This is a wife Contrivance of Nature; for thereby their Joints are render'd pliable and strong; their Blood continues sweet, and proper for a full Circulation; their Perspiration is free; and their Organs stretched out, by due Degrees, to their proper Extension.

5. IV. IT is also very agreeable to observe, how the several different Organs of labouring Men are strengthen'd, and render'd brawny and nervous, as they happen to be most employ'd in their feveral Vocations, let them be otherwife ever to small or weakly. The Legs, Thighs, and Feet of Chairmen; the Arms and Hands of Watermen ; the Backs and Shoulders of Porters; grow thick, strong, and braveny by Time. 'Tis certain, that speaking strong and loud, without over-Straining, will strengthen the Voice, and give Force to the Lungs. Our Nails and Hair, the more they are cut and shaved, the more they grow. And we may promote any one Evacuation fo far, as to weaken and starve all the rest. Using any

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any Organ frequently and forcibly, brings Blood and Spirits into it, and fo makes it grow plump and brawny: And, if due Pains were taken by the Labour proper to them, the Organs of all the Functions of the animal Oeconomy might be ftrengthen'd, and kept in due Plight.

§. V. THEREFORE, to the Afthmatic, and those of weak Lungs, I should recommend Talking much and loud, even by themselves, walking up an easy Ascent, and when any Degree of Wearine/s warns them, to fit and reft till they are eafy, and then to return to their walking again, and fo to increase it every Day, till they are able to walk a reasonable Distance, in a reasonable Time. To those who have weak Nerves and Digestion, and to those who are much troubled with Headachs, (most ot all which arise from the ill State of the Stomacn and Bowels ) I should recommend riding on Horfeback as much as poslibly they could, in the clearest and drieft Air, and to change the Air daily, if pollible : To those who are troubled with the Stone or Gravel, to ride much over rough Caufeways in a Coach: To those that have Rheumatic Pains, to play at Billiards, Tennis, or Cricket, H till

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till they (weat plentifully; and then go immediately into a warm Bed, and drink liberally of fome warm thin Liquor, with ten Drops of Spirit of Sal Armoniac or Harisborn in each Draught, to encourage the Sweating : To those who have weak Arms or Hands, playing two or three Hours at Tennis, or at Foot-ball, every Day: To those who have weak Backs or Breasts, ringing a Bell, or working at a Pump. Walking through rough Roads, even to Lassitude, will sooncst recover the Use of their Limbs to the Gouty; tho' Riding on Horfeback, or in a Coach, will best prevent the Distemper. But the Studious and the Contemplative, the Valetudinary, and those of weak Nerves, if they aim at Health and Long Life, must make Exercise a Part of their Religion, as it is among fome of the Eastern Nations, with whom Pilgrimages, at stated Times, are an indifpenfable Duty, and where mechanical Trades are learned and practifed by Men of all Ranks. Those who have their Time in their own Hands, ought to have stated Seasons for Riding or Walking in a good Air, as indifpensable, as those for going to Dinner, to Bed, or to Church. Three Hours for Riding, or Two for

for Walking, the one half before the great Meal, and the other before going to Bed, is the leaft that can be difpenfed with: As the first Part begets an Appetite, the fecond help on the Digestion. Those who are not Masters of their own Time, must take it when they can; but to be fure they ought to let no Opportunity of taking it sip.

§. VI. THERE are Three Conditions of Exercise, to make it the most beneficial that may be. First, That it be upon an empty Stomach (as, indeed, that is the proper Time for all medicinal Evacuations); for thereby the now concocted \* Crudities, or those Superfluities Nature would be rid of, and has fitted, by going through the proper Secretions, for being ejected, but cannot throw off without foreign Assistance, will be readiest discharged. For, on a full Stomach, Exercife would be too tumultuous, precipitate the Secretions, and throw off the found Juices with the corrupted Humours. Secondly, That it be not continued to downright Lassitude, Depres-

\* Cocta, non cruda, funt evacuanda, Hippocrat. H 2 sion

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fion of Spirits, or a melting Sweat. The First will wear out the Organs, the Second spend the Strength, and the Third will only do Violence to the natural Functions. Thirdly, Due Care is to be had after Exercise, to retreat to a warm Room, and proper Shelter from the Injuries of the Weather; left, fucking into the wafted Body the nitrous Particles of the circumambient Air, they should inflame the Blood, and produce a Rheumatism, Fever, or Cold. I might add a Fourth Condition, joining Temperance to Exercife; otherwife the Evil will be as broad one way, as 'tis long the other. For fince Exercise will create a greater Appetite, if it is indulg'd to the full, the concoctive Powers will be as unequal to the Load, as they were before : But I pass that over, having fufficiently treated this Subject already.

§. VII. UNDER this Head of Exercife, I cannot forbear recommending Coldbathing; and I cannot fufficiently admire, how it fhould ever have come into fuch Difuse, especially among Christians, when commanded by the greatest Law-giver that ever was, under the Direction of GOD's Holy Spirit, to his chosen Pcople,

## and LONG LIFE. FOR

ple, and perpetuated to us, in the Immersion at Baptism, by the fame Spirit, who, with infinite Wildom in this, as inevery thing elfe that regards the temporal and eternal Felicity of his Creatures, combines their Duty with their eternal Happinels. First, The Necessity of a free Perspiration to the Preservation of Health is now known to every body; and frequent washing the Body in Water cleanses the Mouths of the perspiratory Ducts from that glutinous Foulness that is continually falling upon them, from their own condensed dewy Atmo-Sphere; whereby the Perspiration would be foon obstructed, and the Party languish. Secondly, The having the Circulation full, free, and open, through all the capillary Arteries, is of great Benefit towards Health and Long Life. Now nothing promotes that, fo much as Coldbathing; for by the violent and fudden. Shock it gives to the whole System of the Fluids, from the Circumference inward towards the Centre, and the Fluids (because Reaction is always equal and contrary to Action) springing back again from the Centre to the Circumference, a Force is raifed almost ever fufficient to break through all the Dams and Obstru-H 3 Etions

Etions of the smallest Vessels, where they mostly happen, and to carry the Circulation quite round. Thirdly, Nothing is fo injurious, and fo much prevents the Benefit of Exercise, to weak and tender Conflitutions, as fucking into their Bodies the nitrous and humid Particles of the Air, that is, Catching of Cold. Now nothing so effectually prevents this, as Cold-bathing; as the Nature of the Thing shews, and Experience confirms; for if Exercise, to attenuate the Juices, and firengthen the Solids, be added to Cold-bathing, a new Spring and Force will be given to the Blood, both to drive out these foreign and noxious Mixtures, and to unite the cuticular Scales, which form the Scarf-skin, fo as to strengthen it for the future against fuch violent Entries.

§. VIII. I SHOULD advise, therefore, every one who can afford it, as regularly to have a Cold Bath at their House, to wash their Bodies in, as a Bason to wash their Hands, and constantly, two or three times a Week, Summer and Winter, to go into it. And those that cannot afford such Conveniency, as often as they can, to go into a River or Living Pond,

Pond, to walk their Bodies. But this ought never to be done under the actual Firs of a chronical Diftemper, with a quick Pulfe, Head-ach, weak Lungs, or a foul Stomach; nor ought they to flay in till they are over-chill'd. And in Winter they ought to purfue their Exercises immediately after they come out; and those of tender Nerves ought to pour Basons of cold Water on their Head, or wash it well with a dripping Sponge, before they go in. I cannot approve the precipitant way of jumping in, or throwing the Head foremost into a Cold Bath; it gives too violent a Shock to Nature, and rifques too much the burfting some of the smaller Veffels. The natural way is, holding by the Rope, to walk down the Steps as fast as one can, and when got to the Bottom, bending their Hams (as Women do when they court'fy low) to shorten their Length, fo as to bring their Heads a good way under Water, and then popping up again to take Breath; and thus alternately for two or three times, and out again, rubbing and currying well before they are drefs'd. And this brings me to fay fomething of another kind of Exercise :

half

§. IX. THE Flesh-brush is an Exercise most useful for promoting a full and free Perspiration and Circulation : Almost every body knows, what well currying will do to Horses, in making them sleek and gay, lively and active, even fo much as to be worth half the feeding. This it can no otherwise effectuate, than by affisting Nature to throw off, by Perspiration, the \* Recrements of the Juices, which ftop the full and free Circulation, and, by constant Friction, Irritation, and Stimulation, to allicite Blood and Spirits to the Parts most distant from the Seat of Heat and Motion, and fo to plump up the Superficial Muscles. The fame Effect it would produce in other Animals, even human Creatures themfelves, if they were managed in the fame manner, with the fame Care and Regularity. I fhould think it therefore well worth the Pains of Perfons of weak Nerves, and fedentary Lives, especially those threaten'd with paralytic Diforders, to supply the Want of Exercife of other Kinds, with spending

\* i. e. The groffer Parts.

half

half an Hour, Morning and Night, in currying and rubbing their whole Body, more especially their Limbs, with a Flesh-brush. And 'tis a Wonder to me, that Luxury has not brought Cold-bathing and Currying in Use, upon the Animals (efpecially those of them upon whom they can be fo readily made use of, such as Oxen, Pigs, Veal, Lamb, and all Poultry, which naturally delight in Coldbathing) which are brought to the Table. For certain it is, that Cleanness, and due Exercise, (of which Currying is one Part) would much contribute to make all Animals whatsoever, without Exception, healthier in themselves, fuller of Juice and Spirits, and, confequently, better Food for human Creatures.

As to Quiet, the Conditions of Exercife being determined, there needs nothing to be faid of it.



Rules

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Rules for HEALTH and LONG LIFE; drawn from the Head of EXERCISE and QUIET.

I. W HATEVER was the original Conftitution of Man, in our prefent State a due Degree of Exercife is indifpenfably neceffary towards Health and Long Life.

2. ANIMAL Food, and firong Liquors, feem not to have been defigned for Man in his original Make and Frame; but rather indulg'd, to fhorten the Antediluvian Length of Life, in order to prevent the exceffive Growth of Wickednefs.

3. WALKING is the moft natural and effectual *Exercise*, did it not spend the Spirits of the Tender too much. Riding a Horseback is less laborious, and more effectual, for such. Riding in a Coach is only for the Instrm, and young Children. House Exercises are never to be allow'd, but when the Weather, or some bodily Instrmity, will not permit going abroad; for Air contributes mightily to the Benefit of Exercise. Children

Children natually love all kinds of Exercife, which wonderfully promotes their Health, increases their Strength, and stretches out their Organs.

4. THE Organs of the Body that are most used, always become *strongest*; and therefore we may strengthen any weak Organ by Exercise.

nefs: 3. After it, one muft take care

5. THE Lungs are fortified by loud Talking, and walking up an easy Afcent. The Digestion and the Nerves are ftrengthened, and most Head-achs cured, by Riding; the Stone and Gravel cafed, by riding in a Coach over rough Ground; Rheumatic Pains, by playing at Tennis, Billiards, &c. till one fweat; and then going to a warm Bed, to promote the Sweating; feeble Arms, by playing at Shuttlecock, or Tennis; weak Hams, by Foot-ball; and weak Backs, by Ringing, or Pumping. The Gouty best recover the Use of their Limbs, by Walking in rough Roads; but prevent the Fits beft, by Riding a Horscback, or in a Coach. The Valetudinary, and the Studious, ought to have stated Times for Exercise, at least two or three Hours a Day, the one half before Dinner, the other before going to Bed.

CHAP

6. EXERCISE, I. Should always be gone about with an empty Stomach: 2. Should never be continued to Wearinefs: 3. After it, one must take care not to catch Cold. And it should always be accompany'd with Temperance; elfe, instead of a Remedy, it will become an Evil.

7. COLD-BATHING is of great Advantage to Health; but fhould not be used under a *Fit* of a *chronical* Diffempet, with a quick Pulse, or with a *Headach*, or by those that have weak *Lungs*. It promotes Perspiration, inlarges the *Circulation*, and prevents the Danger of catching *Cold*. Those of tender *Nerves* should pour Water on their *Heads*, before they go in; and none ought to jump in suddenly, and with their *Heads* 

8. THE *Flefb-brufb* is a most useful *Exercife*, as appears by its Advantage to *Horses*; and ought not only to be used on human Bodies, but also on such of the *Animals* we defign for our Food, as it can be applied to.

CHAP.



#### CHAP. V.

Of our EVACUATIONS, and their OBSTRUCTIONS.

§. I. HE Three principal Evacuations are, by Siege, by Water, and by Perspiration. All these must be duly regulated, and in the Order of Nature, towards the Preservation of Health, and the Prolonging of Life. The First ought to be of a due Consistence between both Extremes. \* Oportet Sanorum Sedes esse figuratas. Those who are costive, have either over-beated their Bodies with strong Liquors, have eaten too sparingly, have too flow a Digestion, or the peristaltic Motion of their Guts is too weak; whereby the Food, staying too long a time,

\* i. e. The groß Evacuations ought to be of fuch a Confiftence in the Healthy, as to take the Impression of the Guts.

before

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before the Mouths of the Lacteals, is over-drain'd of its Moisture : Those who have purging Stools, have cat too much, or of Things too strong for their concoctive Powers. For superfluous Nourishment leaves too much Chyle in the \* Faces, which, fermenting in the Guts, stimulates them fo as to become a Purge. I have often observed, that a full Meal of strong Meat, as Fish, Beef, Pork, baked Meat, or made Difhes, in tender Perfons, goes off with the Hurry and Irritation of a Purge, leaving the Bowels inflated, colicked, or griped, and the Spirits funk to the laft Degree. The Food, by its various Mixture, Weight, and Fermentation, stimulating all along from the Stomach to the Rectum, and being scarce ever drain'd of its Chyle, without affording any Nourishment to the Body, runs off thus crudely, and becomes equal to a total Abstinence from Food for a long time. And hence we have a most infallible Rule, + à posteriori, to judge if we have governed ourfelves in our Diet, in proportion to

\* i. e. The Food, after it is drained of its nutritious Parts.

† i.e. After the Trial has been made.

petore

the Necessities of Nature, and the Forces of our concoctive Powers. This is the very Reafon why the Bark overdoled, and given to Perfons of weak Digestion, so constantly purges them; and why Mercury, given either inwardly, or by Friction, runs off in violent Purging, and cannot be raised into a Salivation; to wit, the not adjusting the Doses to the Strength of the Stomach, and nervous Fibres. For the Bark naturally binds, and Mercury naturally rifes to the most pervious Glands. And, in this Senfe, I myfelf have frequently obferved, in weak and scrophulous Bowels, even Diascordium, and Venice Treacle, to purge: Whereas, had the Dofes been duly proportioned, or had they begun by Under-dofing, and taken a little longer Time, their End might have been effectually answered; as I have often experienced, without ever failing.

§. II. AND here it may not be amifs to take notice of a *fatal* Miftake those run into, who, being weakly, thin, and, *flender*, aim, by all Means, and at any Price, to become *plump* and *round*; and, in order to attain this, are perpetually devour-

devouring huge Quantities of high, frong Food, and fwallowing proportionable Measures of generous Liquors, not knowing, that, by this very Method, they promote and confirm the Difease they would remedy : For, in fuch Perfons and Cafes, the globular Part of the Blood is constantly of a *small* Quantity, and very glewy; and the ferous Part, thin and watry, (that is, the Blood is poor and weak) and the Solids or Nerves are loofe and relaxed. And the concoctive Powers being in Proportion to thefe Two, of Consequence, the Digestions must be weak and imperfect, and their Force unable to diffolve and break any Quantity of fuch frong Meat, or spirituous Liquors, into a proper Chyle for Nourishment. And this great Load must either be hurry'd off intirely thro' the alimentary Ducts in supernumerary Discharges, or the fmall Portion of Chyle drawn out of it, being too gross to unite, and make a fimilar Fluid, with the Mass of the Blood, must be precipitated through the other Drains of the Body ; and thus the poor, thin Creature must starve in Luxury, and waste amidst Superfluity. The Cafe is the fame with Nurfes and Parents, in rearing up young Children. The perpetual

tual Gripes, Colics, Loosenesses, hard Bellies, Choakings, Wind, and convulfive Fits, which torment half the Children of England, are intirely owing to the too great Quantities of too ftrong Food, and too rank Milk, thrust down their Throats by their overlaying Mothers and Nurses. For what else do their slimy, their grey or chylous, their blackish and choleric Discharges, the Noise and Motion in their Bowels, their Wind and Choakings, imply, but Crudities from fuperfluous Nourishment? This is fo certain, that they are universally and infallibly cured by testaceous Powders, which only absorb sharp Crudities, by Rhubarb Purges, which at once evacuate and strengthen the Bowels, and by Milkclysters, Isfues, and Blisters, which are still upon the Foot of Evacuation; by obstinately perfisting in these, and the like (intended to evacuate and strengthen the alimentary Paffages) and a thin, spare, and nutritive Diet. Nothing nourifhes but Food duly concocted; and, in the Course of Nature, we must first plump up and extend, and then harden and strengthen. This is the Way of Nature in Vegetation. And thus the Animal Creation, devoid of Reason, rear up their Young : And thus even the skilful Groom

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treats

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treats his wasted and decayed Horse : And (which is wonderful) you shall find a fagacious Horfe-Doctor plump up and fatten a rotten, lean, broken-winded Jade, and make him look fleek, gay, and lively, fo as to cheat not only the Efquire, but his Brother Doctor, in fewerWeeks, than all the Man-Doctors in England could rear up their Fellow Creature in Years. 'Tis true, the Juices of Men. are more varioufly, and more throughly corrupted, and their Solids intirely broken, which never happens to the Brute Creation. But the greateft Mistake lies in the Neglect of duly observing, and religioufly profecuting, a proper Regimen. This must principally consist in a Diet of soft, light, tender, cool, and mucilaginous Foods, or fuch as are already become Chyle, either by Nature or Art, fuch as Milk, and Milkmeats, Rice, Sago, Barley, Wheat, Eggs, Broths, light Soups, Jellies, white, young, tender, and well-fed Poultry, or Butchery-meat, caten little at a time, and often, never without an Appetite, nor to Satiety; joining to thefe, the other Helps and Affistances mentioned in this Treatife. When Flesh is once come, 'tis easy to make it strong and hardy, by due Exercife, and a gradual adventuring upon

## and LONGLIFE. 115 upon higher Foods, and more generous Liquors.

§. III. I HAVE often heard valetudinary and tender Persons, and those of fedentary Lives, and learned Professions, complain of Head-achs, Sicknesses at the Stomach, Colics and Gripes, Lownels of Spirits, Wind, and Vapours; and yet pretend they were very moderate and abstemious in their Eating and Drinklng: But, upon Inquiry, I constantly found thefe very Perfons purfued with purging Stools; which was an evident Proof, to me, that they had taken down more than they wanted, or could digeft. For 'tis univerfally certain, that those that do not exceed, must have either costive, or, at least, Stools of a middle Consistence. There is nothing more ridiculous, than to see tender, bysterical, and vapourish People, perpetually complaining, and yet perpetually cramming, crying out, They are ready to fink into the Ground, and faint away, and yet gobbling down the richest and strongest Food, and higheft Gordials, to oppress and overlay them quite. Fresh and generous Food, mixing with the Marp Humours of the Stomach and Bowels, may, for fome fhort time, qualify and abate their Irri--12 tation,

tation, and may give a Fillip to the fluggifh Circulation, and become, as it were, a Cork, to ftop the perpetual fuming up of these noxious Steams upon the Head and Brain: But this is, (pardon the Similitude) as if one should go to quench the pestilential Steams of a Common-sewer, by throwing in greater Heaps of Ordure and Nuisance into it. The proper Remedy in this Cafe is, first, to cleanse the fetid Aby/s, and then to preferve it clean, by cutting off all the Inlets of Putrefaction. This will require a little Courage, Labour, and Pain; but the future Ease and Sweetness will more than abundantly recompense them; for there is nothing more certain, than that of those born sound here in England, the Head-achs, Stomach-achs, Colics, and nervous Pains and Diforders, univerfally proceed from Idleness, and Fulness of Bread.

§. IV. THOSE who eat but one moderate *Flefb-meal* a Day, will have regularly, once a Day, a *Difcharge* of the Remains of their Food. And, generally fpeaking, those that go oftener, have exceeded some-how. Those who pretend to cure themselves of *nervous* Diforders, or any other *chronical* Difeases, or

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or preferve themselves from them, or lengthen out their Days, must underdose themselves, (and therefore can go but once in two Days) even tho' they should undergo the Pain of Costiveness. For 'tis impossible the Nerves of those who have *flippery* Bowels, fhould ever be braced, or wound up; for there the Cure must begin where the Evil began, and must be communicated thence to the reft of the System, as a Rope-maker begins the Twist at one End of the Rope, and communicates it to all the other Parts. Our Access to the Nerves of the Stomach and Bowels is obvious and open: To the rest, the Way is difficult, and far about. And fince a Relaxation, Weakness, and want of Spring in the Fibres, is the Origin of all nervous Distempers, no Medicines, but such as contract, stiffen, wind up, and forten them, can remedy this Evil; and they must necessarily contract and bind up the Fibres of the Stomach and Guts, as the Parts they first approach, and exert their Virtue upon. And he who, without firm Bowels, thinks to cure a nervous Distemper, labours as much in vain, as he who would keep a Fiddlestring foaking in Oil and Water, to make it

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it vibrate, or play off a fine Composition of Music.

§. V. By Experience and Observation I have found, that in those who have one regular Discharge in twenty-four Hours, the Time of the Progress of the Food from the Stomach, till its Remains are thrown off, is three natural Days. And in those who go but once in two Days, the Time is fix natural Days. The Curious may be fatisfy'd in this, by fwallowing an Almond, or any other Nut, which passes without being broken, or making any Irritation. The Reafon is this, That a smaller Quantity of Food is retained longer, by their Suction, at the Mouths of the Lacteals, to drain it intirely of its Chyle; and its Weight being lefs, the concoctive Powers have the greater Force upon it, and fo it is retained till it is perfectly digested, and drain'd of all its Humidity, whereby fuch People become costive; whereas, in People that exceed, the contrary Causes precipitate the Course of the Aliment, and fo leave the Bowels always *flippery*. And nothing can more demonstratively thew an Excess, than the Lubricity of the Discharge; and I have

have often obferv'd in tender Perfons, and those of weak Nerves, when a Meal (I mean, only of those who eat Flesh-meat but once a Day) has been a little too hard for the Stomach, tho' the Spirits have been full and free, and the Health equal and good, by duly proportional Meals for two preceding Days; the third Day, when the gross Meal came off, they have been full of Wind and Vapours, their Eyes dim, and their Heads heavy, with flying Rheumatic Pains over the Body, and Colic-gripes. From whence we may draw these three Corollaries.

COROLL. I. It requires the fame Time for the unconcocted Chyle of a großs Meal to run the Circle of the Habit, and the feculent Remains to pass through the Guts; the first by Perspiration, and the last by Siege.

COROLL. 2. We may likewife gather from thence, a Confirmation of that Aphorifm of the Physicians, That the Errors of the first Concoction are never mended in the fubsequent, unless the Case to be mentioned in the next Paragraph be an Exception to it. For I 4. the

the gross Meal gave rather more Uneasiness, when it came to be thrown off by Perspiration.

COROLL. 3. From hence we may also see the Ridiculousness of the vulgar Opinion, ascribing universally the Pain they suffer, or the Relief they find, to the last Meal or Medicine.

§. VI. THERE are fome Sorts of Food which may oppress and load the Stomach, and alimentary Ducts, in the first Concoction, which may be very fafe and benign in the subsequent ones. For Instance; Cheeje, Eggs, Milk-meats, and vegetable Food, though duly prepared, and justly proportion'd in Quantity, may chance to lie heavy on the Stomach, or beget Wind in the alimentary Passages of some Persons (and yet drinking of Water will always remedy this Inconveniency): But these neither having their Parts strongly united, nor abounding in tharp urinous Salts, when they become fufficiently diluted with a watry Menstruum, or dissolved into their component Parts, and their Parts being still smaller than the smallest Vessels, and their

### and LONG LIFE. 12:

their Union conftantly lefs, than the Force of the concoctive Powers, in Perfons who have any remaining Fund of Life in them; will thereby yield a fweet, thin, and eafily circulating Chyle, in the after Concoctions become benign and falutary, and afford no Materials for chronical Diftempers. And the Wind thence generated, not being pointed and armed with fuch fharp Salts, as those of Flesh-meats, or the corrosive Juices of spirituous Liquors, will be as innocent and fafe, as the Element we breathe in.

§. VII. THE Second Evacuation is by Water, whose Circumstances and Condition, tho' little adverted to, may be of great Service to difcover both the State of our Constitution, and the Proportion of our Diet. Some People are frighten'd when they find their Water turbid, broken, and full of Brickdust Sediment; whereas that is the best Symptom it can have. For though it supposes the Blood loaded with urinous Salts and Crudities; yet 'tis still better they should pass off, than continue in the Habit. On the contrary, when those that live freely have Quantities of pale, limpid, and sweet Water, 'tis a certain Sign, that the Per-(piration

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Spiration is ftopp'd; that neither the first nor the secondary Concoctions have been duly perform'd; that the Chyle has not been sufficiently broken, nor the finer Secretions duly made by the leffer Drains; and that the urinous Salts are fill retained in the Habit. Upon which must needs enfue Oppression of Spirits, Chills upon the Extremities, flying Rheumatic Pains over the Body, Head-achs, Colics, and Gripes. And here it may not be amifs, to take notice of the Difference of the pale Water of hypochondriacal and hysterical Persons, from that of those who labour under a true Diabetes, the Apprehension of which terrifies fo often the low and dispirited Persons of the first Class. The Water of both has the fame Appearance, both in Quality and Quantity; at least, in the first Inflance, they are both attended with the fame Sinking and Dispiritedness. But, in a true Diabetes, there is a constant Thirst, a low, but quick Pulse, the Water is much sweeter, and continues longer to come off in profuse Quantities, insomuch that sometimes it is so violent as to run down the Party in a few Days. In hypochondriacal and hyfterical Perfons, there is little or no Thirst, never a quick Pulfe,

Pulse, but rather too low and flow a one; the Flux foon flops of itself, or by any little diaphoretic Medicine; and they are cold upon the Extremities, which the others are not.

6. VIII. THAT bluis and variegated Film, which fometimes looks like Oil and Fat fwimming on the Water of fcorbutic and cachectic Perfons, is nothing but the congregated Salts, which are crouded fo thick together, that they are ready to shoot into Clusters, much like the Film of a \* Lixivium, when ftanding for the Crystallization of fixed Salts. The Water which has a light Cloud hanging almost from the Top to the Bottom, is of a bright Amber Colour, and about three Quarters of the Liquor taken down, is best, and a certain Sign of a due Concoction, a just Proportion of Food, and a total Abfence of Repletion and Crudity. And those who live temperately, use due Exercife, and enjoy a perfect State of Health, always make fuch Water.

\* i. e. a Lye.

§. IX.

§. IX. THOSE who are fubject to great Quantities of limpid and pale Water, ought to conclude, that their Food has been too heavy in Quality, or too much in Quantity for their concoctive Powers, or their Labour too little; and that therefore they ought to proportion both, for the future, with more Caution and Exactness, by living low for fome time, or using more Exercise. And to stop their Flux of pale Water, they ought to take a little Gafcoign's Powder, Confection of Alkermes, or Sir Walter Raleigh's Cordial at Night, and drink liberally of small, warm Sackwhey, with a few Drops of Spirit of Hartshorn, to set the Perspiration in Order again. Those, on the other hand, who make high-colour'd, foul, and very turbid Water in smaller Quantities, have either inflamed their Blood too much with spirituous Liquors, or loaded it with too great a Quantity of animal Salts. To prevent, therefore, Diforders and Difeases, they must lessen the Quantity of their Flesh-meat, and temper the Heat of their Wine with Water; elfe they will lay the Foundation of some acute, inflammatory, or dangerous chronical Diftemper.

§. X. THE worft kind of Water of all, is that of a dark Brown, or dirty Red, in a small Quantity, and without any Sediment. This kind of Water, in acute Difeases, always indicates insuperable Crudity, high Inflammation tending towards Mortification, and a dying Languor in Nature; and, in Perfons labouring under no visible Distemper at the Time, an almost total Debility of the concoctive Powers, an infeparable Union of the constituent Parts of the Blood, the highest Degree of Crudity, and a Deadness in all the animal Functions : And, if preceded by long, continual Excesses, requires the Advice of a Physician. I shall fay nothing of Coffee-colour'd, bloody, wheyish, or purulent Water, or that with white Gravel, Films, Rags, or Bits of broken Membranes; they are well known to be nephritic, or Symptoms of an Ulcer somewhere in the urinary Paffages.

§. XI. THERE happens also an Evacuation both by Siege and Urine, to some weak Persons of relaxed Nerves, that extremely alarms the Patient, and is not so readily accounted for in common

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mon Ætiology\*. It is when either a white, transparent, viscid Substance, like Felly, is constantly voided by the Bowels, more or less; or when a white, milky, glewy Substance, like Cream, or laudable Matter, settles in the Water : Both these Appearances are commonly afcribed to an Ulcer in the Guts, or in the Kidneys, the very Apprehension of which is almost fufficient, in fome low Perfons, to bring on the Diffemper feared : And yet, I am very certain, there is neither Ulcer, nor true Matter, in either Cafe, as I propose them. For where there is violent and acute Pain, or Matter of different Colours or Mixtures, there, very possibly, may be, nay, certainly there is, an Ulcer. But in the Cafe I here intend, there is very little or no Pain; no hectical Paroxy ins, which always attend an inward Ulcer; no bloody or fanious Mixtures, which always betray the inward Sore; no fetid Smell to imply Corruption. For the Cases I put at present, happen to Persons

\* That Part of Phyfic which teaches the Caufes of Difeafes.

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the least capable of Inflammation or Impostumation, viz. to paralytic Persons, or those of a natural Tendency that way, to cold, vapourifb Perfons of low Spirits, and weak Nerves, whose Pulse is low and flow, and their natural Functions weak and languid; all which evidently fhew, that these Discharges cannot come from an Ulcer. The first Cafe I take to be either an Obstruction of fome of the Lacteals, whereby the Chyle cannot be carried off in any fufficient Qnantity, but, passing through the Guts, and its more watry Part being evaporated, it becomes thick and gelatinous, and is thrown off at laft with the Remains of the Food. Elfe it must be an Obstruction of those Glands of the Guts, by which a viscid Matter, for lubricating of them, is commonly fecerned; by the Imprisonment and Evaporation of which Matter, it thickens and turns like a Jelly, (as it does by Cold, or Over-feeding, in the Glands of the Mouth, Throat, and Windpipe) and, at last, by the squeezing of the Guts, is thrown off. And in the fame manner, I take that milky Substance subsiding in the Water, in fuch a Cafe as I have mentioned, to arise from a Relaxation of the Glands of the Kidneys and Bladder.

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der, and other urinary Paffages; and that both are to be cured the fame way other nervous Diftempers are cured; viz. by a proper Regimen of Diet, and a Courfe of contracting, ftrengthening, and volatile Medicines.

§. XII. THE infenfible Perspiration is the Third Evacuation to be confidered. The Statical Chair, invented by Sanctorius, for examining the Quantity of the Perspiration, however ingenious and delightful in Speculation, is too cumbersome and laborious to be of any great Use in common Life. 'Tis certain, however, that the free and full flowing of this Evacuation is as neceffary to Health as any of the groffer, fince in Quantity it is at least equal to both the fore-mentioned; and an Obstruction thereof is generally the Source of all acute Difeafes, as it is the Consequence of all chronical ones. And therefore, I have advised those who are much abroad in Easterly and Northerly Winds, (which most of any obstruct Per-(piration) and have Fluxes of white and pale Water, to a ready Antidote to prevent the Beginnings of these Obstru-Etions.

§. XIII.

§. XIII. Dr. \* JAMES KEIL has made it out, beyond all Possibility of doubting, that catching of Cold is nothing but fucking in, by the Passages of Perspiration, large Quantities of moist Air, and nitrous Salts, which, by thickening the Blood and Juices, (as is evident from Bleeding after catching Cold) and thereby obstructing, not only the Perspiration, but also all the other finer Secretions, raises immediately a finall Fever, and a Tumult in the whole animal Oeconomy; and, neglected, lays a Foundation for Conjumptions, Obstructions of the great Viscera, and universal Cachexies. The Tender therefore, and Valetudinary, ought cautioufly to avoid all Occafions of catching Cold; and, if they have been so unfortunate as to get one, to fet about its Cure immediately, before it has taken too deep Root in the Habit. From the Nature of the Diforder thus described, the Remedy is obvious; to wit, lying much a-bed, drinking plentifully of fmall, warm Sack-whey, with a few Drops of Spirit of Hartshorn, Posset-drink, Water-gruel, or any other warm small Liquors; a Scruple of Gas-

\* His Statica Britannica.

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coin's Powder Morning and Night; living low upon Spoon-meats, Pudding, and Chicken, and drinking every thing warm: In a word, treating it at first as a small Fever, with gentle Diaphoretics ; and afterward, if any Cough or Spitting should remain, (which this Method generally prevents) by softening the Breast with a little Sugar-candy, and Oil of fweet Almonds; or a Solution of Gum Ammoniac, an Ounce to a Quart of Barley Water, to make the Expectoration eafy; and going eautiously and well cloathed into the Air afterwards. This is a much more natural, easy, and effectual Method, than the Practice by Balfams, Linctufes, Pectorals, and the like Trumpery in common Ufe, which ferve only to spoil the Stomach, oppress the Spirits, and burt the Constitution.

§. XIV. THE fureft way of maintaining and promoting a due *Per/piration* is, To take down no more Food than what the concollive Powers are fufficient to reduce into a due *Fluidity*, and the Expences of Living require; to profecute neceffary *Exerci/e*, and use the other *Affiftances* advised in the foregoing *Chapters*. Want of due *Reft*, and the *Refresement* that follows upon it, *ftarting*,

ing, toffing, and tumbling a bed, are certain Signs, that the Perspiration is not duly carry'd on in the Night-feason. And therefore, in order to remedy this, a greater Proportion of Exercise, a greater Degree of Abstinence, or some gentle domestic Purge, must be had recourse to the next Day. Colical Pains, Gripes, and Purging, much Eructation and Belching of Wind, Low-Spiritedne/s, Tawning and Stretching, are infallible Signs, that the Perspiration flows not freely and plentifully then. And therefore the fame Remedies ought to be profecuted, as foon as an Opportunity offers; else the Party will suffer at last. Wind, as Sanctorius observes and demonstrates, is nothing but obstructed Perspiration : And Tawning and Stretching are but Convulsions of the proper Muscles and Organs appointed by Nature, the one for pumping up Wind from the Bowels, the other for prefling upon the excretory Ducts in the Skin, to force out the fluggish perspirable Matter. And 'tis beautiful to observe, how wifely Nature has contrived the Spasms, Cramps, and Convulsions of the proper Organs, to expel every noxious and extraneous Body out of the Habit. Thus Cough-K 2

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Coughing is a Convulsion of the Diaphragm, and Muscles of the Breast, to throw out viscid Phlegm : Vomiting, of the Stomach, (aflifted by the Diaphragm and Muscles of the Abdomen) to throw up its Crudities, and those of the Bowels; or to expel Sand or Stones from the Kidneys. The Throes of Labouring Women are to bring off the Burden. Sneezing is an Effort of the proper Muscles, to eject some noxious Particles from the Organs of Smelling; Shivering and Stretching, to affift Perspiration ; and Tawning, to pump noxious Wind. And even Laughing itself is an Effort of the Muscles of the whole Trunk, to throw off fomething that its delicate Membranes cannot And, lastly, hysterical Fits and bear. Convulsions, both in Infants, and Perfons come to Maturity, are but violent Efforts, Struggles, Workings, Cramps, and Spafms of all the Mujcles of the whole Body together, to expel, squeeze, and press out the sharp acrimonious Wind, Fumes, and Vapours, from the Cavities of the whole Machine.

§. XV. THERE is an Evacuation incident to Perfons of weak Nerves, which could not conveniently come in under

#### and LONG LIFE. 133.

under the general Division, because it happens too feldom to make a new Member of it. It is a Discharge of thin Rheum from the Glands of the Mouth, Throat, and Stomach; and is called, by some, a nervous or scorbutic Spitting. It fifes fometimes to the Height of a petit Flux de Bouche, as the French call it; and threatens fome tender Perfons, as they apprehend, with a Confumption, though it imply nothing lefs. We may observe some, who are struck with a deep Palfy, to flow at the Mouth, and drivel down their Breafts; infomuch that the Afflicted of this Sort, who are advanced in Years, can fcarce fpeak intelligibly for the Flux, till they have first emptied and cleaned their Mouths. And this arifes to fo great an Height, in some much broken, paralytic Persons, that, upon the flightest Occasions, either of foy or Grief, they are apt to run into a Profusion of Tears, Sighs, and Sobbings. And fome Sorts of Idiots, and those hysterically mop'd, and most of those who suffer from relaxed and weak Nerves, are, more or less, subject to these falival Discharges, especially after Excesses in Diet. Hence the first Sort receive the Appellation of Snivellers or Drivellers. And K 3

And the Difficulty of the Cure of all the Difeases of weak Nerves depends much on the Quantity and Constitution of this Flux. For much and long Spitting, and Running off of this Rheum, implies a total Relaxation of the whole nervous System, and shews neither the first nor second Concostions have been duly performed. I have frequently had Occasion to shew, how Excesses in the Quantity or Quality of the Food, in Perfons of relaxed and weak Nerves, begot a viscid and gross Chyle, of which that Part, which could not get through the Lacteals, lay fermenting and putrefying in the alimentary Paffages; begot Winds, Gripes, and Colics; and at last wrought itself off like a Purge; and that that Part, which got through the Lasteals, and was received within the Limits of the Circulation, being too groß and glewy to be mixed with the old Mass of the Fluids, to circulate through the smallest Vessels, and to enter the fine perspiratory Glands, would necessarily be thrown into the wider, more spongy, and loose falivary Glands, which are appointed by Nature to fecern the more glutinous Parts of the Fluids. And from thence this falivary Inundation

tion proceeds. The Fact is, When those of weak Nerves commit habitual Exceffes in their Diet, the Glands, and fmall Veffels, of all the Body are tume fied, fwelled, and obstructed thereby, as they needs must be. And 'tis from the Preffure of these inlarged Glands, and the obstructed capillary Vessels, on the Nerves, and patent Blood-veffels, that most of the Evils they fuffer under, proceed. But more efpecially, are the Glands, appointed to draw off the more viscid serous Part of the Blood, obstructed and tumefied thereby. Upon which Account, as Baglivi advises to inquire well into the State of the Tongue and Mouth, in order to discover the Condition of the Stomach, Guts, and Bowels; fo I think 'tis highly reafonable, in a chronical Cafe, to have great Regard to the Condition of the Eyes; and if a dead, cold Languor be observed in the Hue or Water of them, (as Jewellers (peak of Diamonds) and more especially if the lachrymal Gland in the Corner next the Nofe, which I always narrowly inspect; if, I fay, this Gland be found harder or larger than ordinary, fwelled and tumefied, it must certainly be concluded, whatever else be in the Cafe, there K 4 13 RW

there must be a relaxed State of Nerves, much Vapours, weak natural Functions, and a misimanaged Regimen. And it is from the Obstruction and Swelling of this and the other Glands, in and about the Eyes, and their Preffure upon the optical Nerves, and fine Blood-veffels, that those Spots, Flies, Atoms, Dimness, Darkness, and Confusion of Sight, in vapourist and bysterical People, proceed. For this Gland fhews, that the whole ferous Glands in the upper Regions of the Body are, in Proportion, tumefied and swelled with viscid Humours, through Excels of Diet; unless the Person have fuffered there by Accident, or labours under some natural Diforders of the Eyes. From the Obstruction and Swelling of the falivary Glands in the Mouth, Throat, and Gullet, proceed all those Choakings, Gulping, and Strangling, that hysteric Persons so often complain of. The Wind and Crudities lodged in their Stomach and Guts, and the reft of the Cavities of the Body, prefling to get Vent upwards, are refifted and ftopp'd in their Passage by the Diaphragm; whereby the Infpiration is ftreighten'd, and, by the Bulk of these Glands throughout the Gullet, the Way is intircly ftopp'd; which

which raises fuch a Tumult and Struggle, as produces the mentioned Symptoms; which I have not Leifure to detail here more minutely. Now this Salivation or Discharge of the thinner Rkeum, and that Coughing and Hauking of more viscid Phlegm, commonly called a nervous Cough, as also the Chin-cough of Children, and all fuch Difcharges of fharp Serum in Perfons of weak and relaxed Nerves, is an Effort of Nature to relieve them. And, it diferently managed, and duly heeded, would prove a Crife to their Diforders, and quite free them from their present \* Paroxy/ms, and fet the Circulation and Perspiration, and confequently the Spirits, at Freedom and Liberty again. Some Perfons most distractedly run to Drams and Cordials to remedy this Evil, to stop the Violence of this Deluge, and to raise their drooping Spirits: But it ferves only to thicken the Phlegm, fhut up the Mouths of the falivary Glands clofer, and fo to perpetuate the Evil they mean to cure. Others devour large Quantities of high and generous Foods, because they find a little

\* The fharpest Part of the fuffering Fit of a Difease.

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Relief to their Spirits, from the first Run of the fweet, thin, and spirituous Chyle: But this is only adding Fuel to the Fire, and running on in a perpetual Round of Lownel's and Slavering : Whereas, would they fuffer Nature to act her own Way, to carry on this critical Discharge as far as it would go, without offering in the least either to check or promote it ; but by thin, light Food, and cool Liquors, in moderate, or rather under-dofed Quantities, support her in the manner the concostive Powers are sufficient for, after the had difcharged all the Grudities from the Mass of the Fluids, by these emun-Etory Glands, and thereby given a free Paffage to the Wind to escape the Way it tends, the Salivation would leffen gradually, and at last stop of itself. And if then, towards the Decline, a gentle Vomit, to pump up the flow and viscid Remains of the Wind and Phlegm in the upper Part of the alimentary Paffages, and afterwards a gentle stomachic warm Purge, to scour the lower Part of these Tubes, were carefully administer'd, the Patient would soon find a clear Head, light fome Spirits, Ease and Freedom from Pain and Oppression; the Circulation and Perspiration would be foon brought to +OF

to their natural and found State, and Health and Chearfulnefs reftored together; unlefs a mortal or habitual \* Ptyalifm was the Cafe, which I have fometimes obferved as fatal and incurable as a true Dropfy, or inveterate Diabetes; all. which owe their Being to a deep Scurvy, whereby the globular Part of the Blood is intirely broken, and the Serum made a mere Lixivium or Lye.

Rules for HEALTH and LONG LIFE, drawn from the Head of EVACUATION.

5. THE Care of all

I. COSTIVE Stools are Signs of overheated Blood, too fpare Feeding, Slownefs of Digeftion, or Weaknefs of the Guts.

2. PURGING Stools shew intemperate Feeding. Too full a Meal has the Effects of a Purge, fills the Guts with Wind, and gives Gripes. Mercury, and even the Bark, Diascordium, and Treacle, if overdosed, purge.

> \* Spitting. 3. HEAD-

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3. HEAD-ACHS, fick Stomachs, Vapours, low Spirits, Gripes, and Colics, proceed from Cramming, and are ever accompanied with loofe Stools.

4. THOSE that live temperately, have one regular Stool a Day. Those who have more, exceed.

5. THE Cure of all Relaxations of the Nerves (the Source of chronical Difeases) must necessarily begin at the Stomach and Guts.

6. THE Time from eating a Meal, till its Discharge, is three Days, in those that have one Stool a Day: Six in those that have but one in two Days.

7. A GROSS Meal produces more Diforders, the Day the Excrements of it go off, than the Day it is eaten.

8. A MEAL takes the *fame Time* to get through the Habit by *Perspiration*, that its *Remains* do to pass through the *Guts*.

9. THE Errors of the first Concoctions cannot be mended afterwards.

S. HEAD\*

10. PAIN,

10. PAIN, or Relief, is not always the Effect of the last Meal or Medicine that was taken down.

11. THOUGH Cheefe, Eggs, Milk, and vegetable Foods, may be hard to digeft, without drinking of Water, to fome Stomachs; yet their Chyle is good, and produces no bad Effects.

12. TURBID Water, with Brickdust Sediment, proceeds from the critical Discharge of what was preternaturally retained in the Habit.

13. PALE sweet Water, from the urinous Salts being yet retained.

14. THERE is great Difference between hysteric pale Water, and that which proceeds from a Diabetes.

15. THAT Appearance of Fat on the Urine of some People, is nothing but a thin Film of Salts.

16. BRIGHT Amber-colour'd Water, with a light Sediment rifing toward the Top, amounting to three Quarters of what 142 An ESSAY of HEALTH what is drank, is a Sign of good Digefion.

17. GREAT Quantities of pale Water proceed from Excess in the Quantity of Food, and want of Exercise. The Cure of it is performed by eating less, using more Exercise, and taking some Diaphoretics, to set the Perspiration right.

18. HIGH-COLOUR'D turbid Water, in fmall Quantity, fhews Abundance of animal Salts in the Habit, or the immoderate Use of fpirituous Liquors; and must be cured by vegetable Food, and Water, or other small Drink.

19. DARK-BROWN Water, or of a dirty Red, is extremely dangerous, both in acute Cafes, and in those that seem at present to ail nothing.

20. BLOODY purulent Water, and full of Films, is a Sign of nephritic Ailments, Stone, and Gravel

21. THE viscid Matter, like Jelly, in the Stools, and the viscid milky Substance, somewhat like Matter, in the Urine of some People of weak Nerves, proceed from

from a Corruption of the Liquor of the mucous Glands of the Intestines, and of the Bladder, and other urinary Passages.

22. OBSTRUCTION of *Perspiration* is one Source of *acute* Diseases, and a Consequence of *chronical* ones.

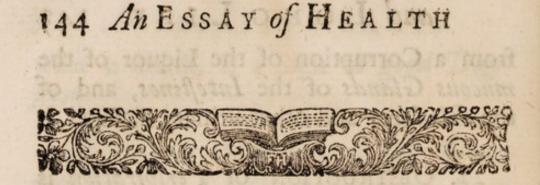
23. CATCHING of Cold is an Obstru-Etion of Perspiration, by the humid and nitrous Particles of the Air. It should be cured by gentle Diaphoretics, and not by balfamic Pectorals, which do no Good but in the End of the Cure, to promote Expectoration from the Lungs, if there be any Occasion for it.

24. PERSONS of weak Nerves have often a critical Flux of Rheum from the Glands of the Mouth and Throat, to a very large Quantity; which, if not tamper'd with, brings them great Relief.



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CHAP:



# CHAP. VI. Of the PASSIONS.

§. I. COME now, in the Order of my first proposed Metbod, to treat of the Palsions, which have a greater Influence on Health and Long Life, than most People are aware of. And that I may propose my Scheme with the greatest Clearness I can, I will lay down some Propositions or Axioms, as the Ground-work on which it is founded.

PROP. I. The Soul refides eminently in the Brain, where all the nervous Fibres terminate inwardly, like a Musician by a welltuned Instrument, which has Keys within, on which it may play, and without, on which other Persons and Bodies may alfo play. By the inward Keys, I understand those Means by which the Thoughts of the Mind affect the Body; and by the outward,

ward, those whereby the Actions or Senfations of the Body affect the Mind. Both these Affections may be called Passions, in a general View, as either Part of the Compound is acted upon.

SCHOLIUM. As a Man is compounded of two different Principles, Soul and Body; and as there are two different Kinds of outward Objects, by which these two different Principles may be acted upon, to wit, Matter and Spirit; the Passions, in these two different Views, may be divided into Spiritual and Animal. As to the first Branch of this Division, fince Spirits (if I may be allow'd there are any fuch Beings) may be supposed to act upon one another, without the Mediation of organical Bodies, (fuch, perhaps, was St. Paul's Ecstafy, when he was rapt up into the third Heavens; fuch was Mofes's Commerce with his Maker, when he spoke to God Face to Face; such must the Influence of the Divine Grace be supposed; and all who allow of Revelation, admit, that the Soul may be ferene and tranquil, while the Body is in Diffrefs and Pain; and even all the Stoic Philo-Sophy is grounded on this Distinction) it L muft

must have a real Existence in Nature. And the other Branch must also be allow'd by all those who cannot think brute Animals mere Machines, and who observe, that we have Impressions made on our bodily Organs, which affect us, sometimes very deeply, even in our Sleep. However, these Things be, 'tis sufficient for my Purpose, that Man is allow'd to be a compounded Being, on which outward Objects may act, to abstract the Consideration of the Impressions made on the Spinit, from those made on the Body.

PROP. II. The Union of these two Principles in the Compound, MAN, seems to confist in Laws pre-establish'd by the Author of Nature, in the Communications between Bodies and Spirits, as there are, no doubt, Laws established for Spirits, in their Commerce and Actions upon one another. For every one knows there are Laws of Nature, establish'd by its Author, for the Actions of Bodies upon one another.

SCHOLIUM. These Laws of the Actions of the Soul on the Body, and of the Body upon the Soul, are never to be known to

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to us, but by their Effects; as the Laws of Nature, in the Actions of Bodies upon one another, were first discovered by Experiment, and afterward reduced into general Propositions. One Law of the Action of the Soul on the Body, & vice versa, feems to be, That upon such and fuch Motions produced in the mufical Instrument of the Body, fuch and fuch Senfations should arise in the Mind; and on fuch and fuch Actions of the Soul, fuch and fuch Motions in the Body fhould enfue; much like a Signal agreed to between two Generals, the one within, the other without a Citadel, which should signify to one another what they have before agreed to, and established between them; or like the Key of a Cypher, which readily explains the otherwife unintelligible Writeing. Besides these Passions and Affections, which are involuntary;

PROP. III. As Bodies are purely paffive, and are acted upon by other Bodies, conformable to the fettled Laws of Nature; in Spiritual Beings, on the contrary, there is an active, felf-motive, felf-determining Principle, by which it directs and manages itfelf with regard not only to its own Self, L 2 and

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and its own Sentiments; but alfo to its Actions and Influence on other Beings without it, and their Actions and Influences on it. And this is the Foundation of Liberty or Free-will in rational and intelligent Beings.

SCHOLIUM. That this Faculty or Principle really exifts, and is effential to spiritual Beings, is as certain, as that there is Motion in the Universe, or that Body and Spirit are effentially different. For, that Motion is not effential to Bodies, is as certain as that Bodies are impenetrable; and that the Quantity of Motion in the Universe may be, and is daily increased, is as much Demonstration as any Proposition in Euclid. And if Motion be, is, or may be increased, it must arise from spiritual Beings. And he who can deny this, only shews himself ignorant of the Principles of all true and just Philosophy, and of the first Elements of the System of material and spiritual Beings. For further Conviction of this, and clearing up all poffible Objections and Difficultics, I refer the Reader to the Learned and Ingenious Dr. Clarke, in his Answer to the inquiry into Liberty, and his Letters to Mr. Leibnitz,

*witz*, where he has treated this Matter with the greatest Perspicuity and Justness. Besides these now mentioned *Principles*;

PROP. IV. As in Bodies there is a Principle of Gravity or Attraction, whereby, in Vacuo, they tend to one another, and would unite, according to certain Laws and Limitations effablished by the Author of Nature; fo there is an analogous Principle in Spirits, whereby they would as certainly, in their proper Vacuity, be attracted by, tend to, and unite with one another, and their first Author, Centre, and the Rock out of which they were hewn, (to use a Scripture Phrase) as the Planets would to one another, and to the Sun. And this is nothing else but what in Scripture is called CHARITY.

SCHOLIUM. This Proposition is as certain as the Rules of Analogy are, which, in my Opinion, are the Foundation of all the Knowlege we can have of Nature, while we can fee only a few Links of the universal Chain, and but a few disjointed Parts of the grand System of the Universe. The Author of Nature, who L 3 could

could create intelligent Beings only in order to make them happy, could not leave them to fo many different Attra-Etions, without implanting into their Efsence and Substance, as an Antidote to fuch Variety of Distractions, an infinite Tendency, Bent, and Bias, towards Beings of the fame Nature, and towards Himfelf, who was the Caufe and Object of their Felicity. And, even in this our lapsed and forlorn Estate, there remain evident Footsteps of this Principle yet uneffaced. Such are the Checks of Conscience, natural Affection, and the universal Defire of Immortality, and Dread of Annibilation; what the World calls the Seeds of Honour and Renown; all that Concern and Regard paid mere romantic Heroes; and the Worship bestow'd by all Nations, who are not funk into mere Brutality, on some superior and invifible Powers. These are Remains of this Principle, and its Workings, sufficient to shew its Reality à posteriori; as the Laws of Analogy, and the Nature and Attributes of the First Being, shew it à priori. Those who admit of Revelation, cannot doubt of it for a Moment; for

for \* Moses calls it, A Law engraven on the Heart of Man; and † St. Paul, The greatest Perfection of human Nature.

COROLL. I. Hence the true Nature of supreme spiritual Good and Evil may be discovered. For if there be impressed on spiritual Beings, an infinite Tendency, Bent, and Bias, to be reunited with their Divine Original, and the Place in the Divine Substance out of which they were formed, (if I may fpeak fo in a figurative Sen(e) then their being finally united with this their Divine Original, is the supreme spiritual Good; and the feveral Approaches towards this Union, are inferior spiritual Goods; as the being finally separated from it, is the supreme (piritual Evil; and the feveral Steps toward this Separation, inferior spiritual Evils. And the Means of this Union and Separation, are moral Good and Evil.

COROLL. 2. By Schol. of Prop. 1. the most general Division of the Passions

> \* Deut. xxx. 14. † 1 Cor. xiii. ult.

> > L 4

Was

was into Spiritual and Animal. As, in the first Sense, Passion may be defined, The Sentiments produced on the Soul by external Objects, either spiritual ones immediately, or material ones, by the Mediation of the Organs of the Body : So, in the second Sense, Passion may be defined, The Effect produced by Spirits or Bodies, immediately on the Body. And fince outward Objects may be confider'd as Goods or Evils, the most natural Division of the Passions, (whether Spiritual or Animal) as they regard these Objects, is into the Pleasurable and the Painful; which exhaufts their whole Extent. And in this Sense all the Paffions may be reduced to Love and Hatred; of which, Joy and Sorrow, Hope and Fear, &c. are but different Modifications or Complexions, as they may be called. I do not defcend to a more particular Account, not intending an accurate Treatife on the Paffions, but only to lay a Foundation for fome general Obfervations on them, as they regard and influence Health and Long Life.

§. II. IN relation to the organical Inftruments of the Body, and the Effects wrought on them, or the Diforders brought

brought upon them, the Passions may be divided into Acute and Chronical, after the fame Manner, and for the fame Reason, as Diseases are. The acute Passions, whether pleasurable or painful, have much the fame Effect, and work much after the fame manner, as acute Diseases do. They effect a brisk and lively 'Circulation of the Fluids, crifp up and constrict the Solids for fome thort Time. Thus fudden Gusts of Joy or Grief, Pleasure or Pain, stimulate and four the nervous Fibres, and the Coats of the animal Tubes ; and thereby give a Celerity and brisker Motion to their included Fluids, for the fame Time. And the Functions of the Heart and Lungs being involuntary, they have their more immediate Effects upon them. Thus both fudden Joy and Grief make us breathe short and quick, and make our Pulse small and frequent. The retaining our Breath for fome time, (for so far our Breathing is voluntary) to reflect more intensely upon the painful Object, forces at last a strong Expiration, which becomes a Sigh. Thus a sudden painful Idea makes a quicker Circulation of the Blood, and thereby throwing a greater Quantity thereof upwards,

wards, through the proportionally larger Branch of the Aorta, makes it appear in the fuperficial Veffels of the Face, Neck, and Breast, and so produces a Blush; which, when longer continued, and being very ftrong, is dispersed over the whole Surface of the Body. Hence the Observation of Blushing at the Back of one's Hand; and the Reasons why we figh upon fome Occasions, and blush upon others, depend upon the different Structure of the Organs of Pulsation and Respiration. A quick, furprising Pain of Mind acts upon the Heart, bccause the Motion of the Heart is altogether involuntary: So that a fudden Constriction takes Place there immediately to increase the Pulse: Whereas we have fome Power over the Breathing; we can ftop or fuspend it for a Time; and when we are thinking intenfely, our Attention partly makes us hold our Breath; and hence enfues Sighing, ra-ther than Blushing. For the Pain, being flow, quickens the Pulse more gradually : But if it continues long, both Actions of both Organs are respectively produced; and hence it comes to pafs, that, upon Anxiety, Concern, and earnest Expectation, the Pulle is found quick and fmall,

fmall, and the Breath thick and difficult, as Experience fhews. The fame Principles will account for the Effects of Fear and Anger, which make us change Colour, and look red or pale, as the Blood is accelerated or retarded in its Courfe. The sudden Gusts of these Passions being thus accounted for, when they become extreme, they drive about the Blood with fuch a Hurricane, that Nature is overset, like a Mill by a Flood : So that what drove it only quicker round before, now intirely flops it, and renders the Countenance pale and ghaftly. Sudden and great Fear and Grief do fo convulse the nervous System, that fometimes they alter the Polition of the Parts, and fix them in a new onc. Thus the Hair stands on end in a Fright, and the whole System of the Nerves becomes so rigid and stiff, as to lose their Elasticity; whereby the animal Functions are ftopp'd at once; and Fainting, and fometimes Death, enfues.

§. III. THE chronical Passions, like chronical Diseases, wear out, waste, and destroy the nervous System gradually. Those Nerves which are nccessary for consider-

confidering, brooding over, and fixing fuch a Set of Ideas on the Indignation, being conftantly employ'd, are worn out, broken, and impaired. The reft, by Difuse, become refty and unactive, lifeles, and deftitute of a fufficient Flux of warm Blood, and due Nourishment. And thus the whole System languishes, and runs into Decay. Thus flow and long Grief, dark Melancholy, hopeless natural Love, and overweening Pride, (which is an outrageous Degree of Self-love) impair the Habit, by making the proper Seafons of neceffary Food, and due Labour, be neglected, and thereby depriving the natural Functions of their wonted Supplies, overworking fome Part of the nervous System, and leaving the other to ru/t, and become resty, for want of Use. Some of these Paffions, as Love, Grief, and Pride, when very intenfe, and long indulg'd, terminate even in Madness. The Reason is, as I have been faying, becaufe long and constant Habits, of fixing one Thing on the Imagination, beget a ready Disposition in the Nerves to produce again the fame Image, till the Thought of it become (pontaneous and natural, like Breathing, or the Motion of the Heart, which the Machine performs

performs without the Confent of the Will; and also a Disability or \* Tetanus enfues on the other Parts; just as the Faquirs in India fix one or both Hands, by long holding them up, fo as that they cannot bring them down again. There is a kind of Melancholy, which is called Religious, because 'tis conversant about Matters of Religion; although often the Perfons fo diftemper'd have little solid Piety. And this is merely a bodily Disease, produced by an ill Habit or Constitution, wherein the nervous System is broken and difordered, and the Juices are become viscid and glewy. This Melancholy arifes generally from a Difguft or Difrelish of worldly Amusements and Creature comforts, whereupon the Mind turns to Religion for Confolation and Peace: But as the Person is in a very imperfect and unmortified State, not duly instructed and disciplined, and ignorant how to govern himfelf, there enfues Fluctuation and Indocility, Scrupulofity, Horror, and Despair.

§. IV. SINCE the Mind refides, as has been faid, in the common Senfory, like

\* Immobility.

a skilful

a skilful Musician by a well-tuned Instrument; if the Organ be found, duly tempered, and exactly adjusted, answering and corresponding with the Actions of the Musician, the Music will be distinct, agreeable, and harmonious. But if the Organ be spoiled and broken, neither duly tuned, nor justly fitted up, it will not answer the Intention of the Musician, nor yield any distinct Sound, or true Harmony. Those therefore who are tender and valetudinary, lead fedentary Lives, or indulge contemplative Studies, ought to avoid Excesses of the Passions, as they would Excesses in high Food, or spirituous Liquors, if they have any Regard to Health, to the Prefervation or Integrity of their Intellectual Faculties, or the bodily Organs of them. As the Paffions, when flow and continued, relax, unbend, and diffolve the nervous Fibres; fo the fudden and violent ones screw up, stretch, and bend them; whereby the Blood and Juices are hurried about with a violent Impetuosity, and all the Secretions are either stopp'd by the Constrictions, Cramps, and Convulsions begot by them, or are precipitated, crude, and unconcocted, and fo beget, or, at least, dispose toward Inflammations, Fevers, or Mortifications. Hatred,

Hatred, for Example. Anger, and Malice, are but Degrees of a Phrenfy, and a Phrenfy is one kind of a raging Fever. From all which 'tis plain, the violent and fudden Passions are more dangerous to Health, than the flow and continued, as acute Difeases are more destructive than chronical.

§. V. To thew yet farther, the Influence of the *Paffions* on the animal Oeconomy, let us confider the different Conftitutions of Men. Those who have very *fpringy*, *lively*, and *elastic* Fibres, have the *quickest Sensations*, a weaker *Impulse* producing a stronger *Sensation* in them. These generally excel in the animal Faculty of *Imagination*. Hence the Poet;

#### --- \* Genus irritabile Vatum.

And therefore your Men of Imagination are generally given to fenfual Pleasure; because the Objects of Sense yield them a more delicate Touch, and a livelier Sensation, than they do others. But if they happen to live so long, (which is

\* Poets are foon provok'd.

hardly

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hardly possible) in the Decline of Life they pay dearly for the greater bodily Pleafures they enjoyed in the youthful Days of their Vanity. Those of rigid, stiff, and unyielding Fibres, have less vivid Sensations, because it requires a greater Degree of Force to overcome a greater Resistence. Those excel most in the Labours of the Understanding, or the Intellectual Faculties, retain their Impresfions longest, and pursue them farthest; and are most susceptible of the flow and lasting Passions, which fecretly confume them, as chronical Difeafes do: And, iastly, Those whose Organs of Sensation are (if I may speak so) un-elastic, or intirely callous, resty, for want of Exercise, or any way obstructed, or naturally illformed, as they have fcarce any Paffions at all, or any lively Senfations, and are incapable of lasting Impressions; fo they enjoy the firmest Health, and are subject to the fewest Diseases : Such are Idiots, Peafants, and Mechanics, and all those we call Indolent People.

§. VI. WE have before fhewn, that weak *Limbs*, and all the bodily Organs, may be ftrengthened and repaired

paired by proper Exercife. And there is no doubt to be made, but the Organs of Senfation, and those the Mind uses in its intellectual Operations, may be likewife improved, strengthened, and perfected by constant Use, and proper Application. And if by Exceffes, an original bad Conformation, or any Accident, these Organs come to be spoiled, or, by the bad State of the Juices, they be weaken'd in their Functions; then the Medicinal and Chirurgical Arts may take place, and come in Play. But if the Passions be raging and tumultuous, and confantly fuelled, nothing lefs than He, who has the Hearts of Men in his Hands, and forms them as a Potter does his Clay, who stills the Raging of the Seas, and calms the Tempests of the Air, can settle and quiet fuch tumultuous, over-bearing Hurricanes in the Mind, and animal Oeconomy. Without fuch a Miracle, fince the Soul and Body act mutually upon one another, and the Tabernacle of Clay is the weakeft Part of the Compound, it must at last be overborne and thrown down.

§. VII. IN fuch a wretched Cafe Iknow no Remedy, but to drown all other Paffions in that fpiritual one of the M Love

Love of God : The Reasonableness and Justness of which Proceeding, and (what may feem a Paradox) the Usefulness of it to Health, and its benign Influence on the animal Oeconomy, I shall endeavour to demonstrate. Spiritual Love, is that Principle analogous to Attraction, spoken of in Prop. IV. 'Tis the Tendency, Bias, or Impulse of the Minds of Men, and other Spirits, toward the most amiable Objects, communicated by their Creator in their original Formation; by virtue of which, they confantly tend, press, and urge to unite (and, if Obstacles were removed, would unite) with one another, and be all united with their Origin. This Principle, indeed, in this lapsed Estate of Man, (where 'tis overlaid and buried under Rubbish, involved in fo many other Attractions, and stifled. with fuch Letts and Contrarieties, that its Action is felt but just enough to know, that it is; and wants to be awaked with Labour, and excited with Violence, as the Scripture mentions the taking the Kingdom of Heaven by Force) on its first Developement and Expansion, and in its first Exercises, may be called a spiritual Passion, as 'tis the first Motions, Endeavours, and Velleities, toward the Love of

of God, or Charity. But in its Advances, and final Perfection and Confummation, it discovers itself to be a Faculty, Quality, or inherent Power in the Soul, whereby it will act without Solicitation, Motive, or Direction. As a Stone in a Wall, fastened with Mortar, compressed by furrounding Stones, and involved in a Million of other Attractions, cannot fall to the Earth, nor fenfibly exert its natural Gravity; no, not fo much as to difcover there is fuch a Principle in it; just fo, the intelligent Soul, in this her lapsed Estate, being drowned in Sense, chaned and fettered by Ignorance and Perversenefs, drawn and hurried away by the Devil, the World, and the Flesh, is difabled from exerting this inherent and innate Principle of Re-union; and wants fufficient Light on the Understanding, and a right Turn of the Will, to be put in a Capacity of exercifing it. But in its proper Vacuity, and being freed from these Letts and Impediments, it would mount towards its Original, like an Eagle toward the Sun. Amiability, Pulchritude, or Beauty, is as much the peculiar and proper Object of this Affection of the Mind, as Light, or a luminous Body, is of Vision; for Deformity, M 2 as

as fuch, can never be loved. And Beauty, or Perfection, is, in Reality, and just Philosophy, nothing but Analogy, Order, or just Proportion. From hence it neceffarily follows, that, in the Scale of Beings, all Objects ought to be loved in Proportion to their Degree of Beauty, Symmetry, or Perfection. And consequently, the highest Perfection ought to be loved with the highest Degree of Love ; and the several subordinate Degrees of Perfection, with proportionate Degrees of this Affection of the Mind. And fince Finite, when compared with Infinite, vanishes quite, or becomes nothing; it follows necessarily, (fince there is, and can be, but One Object that is Infinite, Good, and Perfect; and all others are but created and finite Goods; that is, in Comparison, they are nothing) that, according to the eternal and immutable Laws of Analogy, the One Supreme Good, endued with infinite Perfection, ought to be loved with a Love infinitely fuperior to our Affections for other Things; or (which is the fame Thing in other Words) that, in Comparison, our Love to the Author of our Being, ought to be infinite; and that to ourselves and other Objects, as being finite Creatures, none

none at all. This is the true Philosophy of this Matter, and as much a Demonstration, as any thing in Numbers or Geometry possibly can be, however it may be received by Men of Self-love and carnal Minds.

6. VIII. YET I would not be fo understood, as if I condemned all subordinate and duly proportioned Regards for ourfelves, and other Objects about us, that are neceffary for our Support and Accommodation in our present State. No ! There is a just and laudable Self-love, as well as a falle and vicious one. If we love our felves, as we love our Neighbours; if we love ourselves as God loves us; if we love our felves as we deferve to be loved by the infinitely perfect Being; if we love our felves with a juftly proportioned and duly fubordinate Love; that is, if we love our felves with a finite, and Him with an infinite Love, or a Love increasing, and going on, in infinitum, that has neither Limits nor End; then we love Ourselves as we ought : This Self-love is just and laudable, and has its due and proper Degree of Reality and Existence, in the Nature of Things. Perfection, or an Object perfect M 3

perfect in its Kind, or one that we think fo, is the proper Object of our Love. And, as in due Analogy, Proportion and Order, infinite Perfection requires infinite Love, or the highest Degree of Love we can give it; fo all other Objects are to be loved with a Degree of Love proportioned to their Perfection. And fince a Being of infinite Perfection can be but One, and all other Beings can have but a finite Degree of Perfection, we must love them but with a finite Love; or, the Proportion of our Love to Him and them ought to be, as Infinite is to Finite; that is, comparatively, we ought to love them with no Love at all; but absolutely (or, without comparing created Things to. the infinitely perfect Being) with their proper Degree of finite Love, according to their Rank in the Scale of Beings.

COROLL. Tho', from the Nature of the Demonstration I have given, that GOD is to be loved, it is evident he is to be loved infinitely fot Himfelf, and his own infinite Perfection, abstracting from all other Considerations, even that of our own Happines, in the Enjoyment of, or Union

Union with Him; yet it is certain, these two, our Love to God, and our own Happiness, cannot be actually separated. Pleasure consists in this, That the Soul and Body are affected by the Objects that produce it, with an harmonious and commensurate Action, or Touch ; for in their original and uncorrupted Make, as they came from the Hands of their Creator, both separately, and each by themfelves, and also in their Actions on one another, all was Harmony and Concord. As to the Body; as nothing but a musical or commensurate Touch can affect it with Pleasure, and as a discordant and uncommensurate Stroke creates a Jarring, Grating and Obstruction, which is Pain, (this is evident in Hearing, where the agreeable Senfations of fonorous Bodies are altogether harmonious; Sir Isaac Newton has made it plain in Vision ; and, no doubt, it is fo in all the other Senses): So likewife as to the Soul; Truth, and Beauty, or Perfection, are the only Objects that give Pleasure to the Understanding and Will, its own Cardinal Faculties. And these are nothing but Harmony, or just Proportion, in the respective Objects. And we have shewn, M 4 that

that the Union of the Soul and Body (or Life, the fo much coveted Good) confifts in a kind of Harmonia prastabilita, (though a kind very different from Mr. Leibnitz's) whereby an harmonious Touch, or Action, upon either of them, produces a pleasurable Sensation. Now as Beauty or Perfection gives Pleasure to both the Parts of the Compound, and as nothing but the highest Degree of Perfection or Beauty, can give the greatest Pleafure, i. e. Happines; it necessarily follows, that spiritual Love, or the Love of God, as it is the only Mean of uniting us with the One Being, who is infinitely perfect, is also the only Mean of making us infinitely happy.

6. IX. As to the fecond Thing propoled concerning spiritual Love, however foreign these metaphysical Speculations concerning it may feem, to a Difcourfe about Health and Long Life; yet, if steadily believed, and their natural Confequences reduced to Practice, they would not only become the most effectual Means to prevent Difeases, but also, the most of any thing, promote Health and Long Life. For, first, Were our Love proportioned to the Order and Analogy

Analogy of Things; were our Love to the Supreme Good infinite; and that to others, in Comparison, none at all; we fhould have but one fingle View in all our Thoughts, Words, and Actions; viz. the promoting and raifing that supreme Love, to its due Degree and Elevation; whereby all Anxiety, carking Care, and Solicitude about other Things (the Source of all our Miseries, and of many bodily Diseases) would be cut off all at once. Secondly, Since Love always begets Resemblance of Manners; fince the Object of this Love is infinitely perfect; if we loved Him in the supreme Degree; we should infinitely endeavour to resemble Him; whereby Hatred and Malice, Luwury and Lewdness, Laziness, and all the other Seeds of bodily Diseases, would be altogether destroyed. Thirdly, Since spiritual Love is not only the noblest, but also the most joyful and pleasant Affe-ction of the Mind; since the Object of our supreme Love (as an inspired Poet expresses it) has Fulness of Joy in his Presence, and Rivers of Pleasures at his Right Hand for ever; and fince our Joy and Happiness will always rife in proportion to our Love; the placing our fupreme

preme Love on the Supreme Good, would render us infinitely joyful, ferene, calm, and pleafed; than which, certainly, no Man can imagine a more effectual Mean of Health and Long Life.

Rules of HEALTH and LONG LIFE; drawn from the Head of the PASSIONS.

I. HE Paffions have a greater Influence on Health, than most People are aware of.

2. ALL violent and fudden Paffions, difpose to or actually throw People into, acute Diseas; and sometimes the most violent of them bring on fudden Death.

3. THE flow and lasting Passions bring on chronical Diseases; as we see in Grief, and languishing hopeless Love.

4. THEREFORE the *fudden* and *acute* Paffions are more dangerous than the *flow* or *chronical*.

5. MEN

5. MEN of lively Imaginations, and great Vivacity, are more liable to the *fudden* and violent Paffions, and their Effects.

6. THOUGHTFUL People, and those of good Understanding, suffer most by the flow and fecretly confuming Passions.

7. THE Indolent and the Thoughtless fuffer least from the Passions: The Stupid and Idiots not at all.

8. THE Difeases brought on by the Paffions may be cured by Medicine, as well as those proceeding from other Causes, when once the Passions themselves cease, or are quieted. But the preventing or calming the Passions themselves, is the Business, not of Physic, but of Virtue and Religion.

9. THE Love of God, as it is the fovereign Remedy of all *Miseries*, fo, in particular, it effectually prevents all the bodily *Disorders* the Paffions introduce, by keeping the Paffions themfelves within due Bounds; and, by the unspeakable Joy, and

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and perfect Calm, Serenity, and Tranquillity it gives the Mind, becomes the most powerful of all the Means of Health and Long Life.



## CHAP. VII.

Containing those OBSERVATIONS, that came not naturally under the foregoing Heads.

§. I. M ENTION having been fo often made of Chronical and fometimes of Acute Diftempers; it may be convenient here, to fuggeft to the Readers as clear an Account of their Nature and Difference, as I poffibly can. Acute Diftempers, then, are underftood fuch as within fome fhort limited Time have their Periods, either of a perfect Crife, and fubfequent Recovery, or of putting an End to the Diftemper and Life both together; and are therefore called

called quick, sharp, or acute Distempers, whofe Symptoms are more violent, their Duration shorter, and their Periods more quick, either of sudden Death, or a glorious Victory over the Difease. These are generally limited within Forty Days. And those that run out longer, turn into chronical Diftempers, whofe Periods are more flow, their Symptoms lefs fevere, and their Duration longer. They too (if new Fuel were not administred to them) would, by the Course of Nature, and the animal Oeconomy, have their Periods, and terminate at the laft. The Viscidity of the Juices, and the Flaccidity of the Fibres, would, in a great measure, and to fome very tolerable Degree, by proper Remedies, and a due Regimen, be removed, and the Party recover in thefe, as well as acute Cafes. But this requiring long Time, much Care, and great Caution, unwearied Patience and Perseverance, and so long a Course of Self-denial, as few People are willing to undergo, it is become the Reproach of Physic and Physicians, that acute Cafes cure themselves, (or rather Nature cures them) and chronical Cafes are never cured. But both the Branches of the Reflection are equally falle.

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falfe. In the First, Art and Care, judicioufly applied, will always alleviate the Symptoms and Suffering, will help on Nature to the Relief she points out, and quicken the Crife, which it will constantly bring about, if the Distemper is not too strong for the Constitution. And even then it will mitigate the Pain, and lay the Patient gently and eafily down. But in the last Case, if due Care be had, to follow timeoufly the Advice of an honest and experienced Physician, a Period certainly may be brought about to most chronical Distempers, where the great Viscera are not spoiled and destroyed. The Failing is in the Patient himfelf, who will not, or cannot, deny himself for a Time fufficient to bring about the Cure. Some chronical Distempers, indeed, are fuch, either by having gone too far, or by being hereditary, and interwoven with the Principles of Life, as never to be totally overcome. And then 'tis a Piece of great Wisdom, to know how far their Conftitution will go, and fit down contented with that Measure of Health their original Frame will admit of. But of this I am morally certain; If the Rules and Cantions, laid down in this Treatife, be care-

carefully, steadily, and constantly obferved, few chronical Distempers but will receive fuch Relief and Alleviation by them, as to make Life tolerably easy, and free from grievous Sufferings : And, in the mentioned Cafe, that is all that is left for Art to do. But in other chronical Diftempers, taken in due Time, where the Viscera are not quite spoiled, they would infallibly bring about a final Period, and perfect Cure. The most certain distinguishing Mark of an acute Distemper, is, To have a quick Pulle; that of a chronical, To have a flow one. The first will exhaust the Fluids, and wear out the Solids in a fort Time; whereas the last will require a longer Time to produce the fame Effect. Some chronical Diftempers, especially towards the last and fatal Period, turn acute: And some acute ones terminate in chronical Distempers. But this Mark will not only keep them diffinct, but also point out, when acute Distempers have chronical Remiffions or Intermiffions, and when chronical Diftempers have acute Fits or Paroxyfms.

§. II. SOME Perfons, who are extremely healthy and found during their younger

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younger Days, about, or foon after, the Meridian of Life, (that is, about Thirtyfive or Thirty-fix, according to the Obfervation of an inspired King) fall into chronical Distempers, which cut them off in few Years, or make them miferable all the reft of their Lives. Thus Confumptions prove mortal to fome about that Thus Stone and Gravel, Gout and Time. Rheumatism, Scurvy and Dropsy, King'sevil and Skin Difeases, either make their first Appearances, or shew themselves in their true Type, about this Time of Life. The Reason is, While the Juices are fweet, fufficiently thin and fluid, but especially while the folid Organs, the Membranes and Fibres, are yet but unfolding, stretching and drawing out to their full Dimensions; any Acrimony, Sharpnefs, or corroding Humour, can affect them no other way, than by making them vibrate, and fo extend themselves farther and farther. For as Pain, fo thefe fharp Salts, by their Twitching and Irritation on the tender Fibres, make them only contract, and fo draw at both Extremities, and thereby unfold and extend themfelves farther. So while the original Foldings and Complications of the

the Solids are not yet quite extended, this Irritation ferves only to draw them out, and does not hurt them, till they are arrived at their full Extent, which generally happens about Five-and-twenty. It takes a due Time, after that, for these sharp Humours to exalt themfelves to their utmost Acrimony, to corrupt and putrefy the Juices, and also fome more Time to wear out, to obstruct and break the great Organs, and their smaller capillary Veffels: The Sum of all which brings the Periods of the great Attacks of these Distempers to the mentioned Time of Life. Those in whom the original Taint is deeper and more radicated, and the natural Constitution weaker, suffer under these Attacks sooner. And those in whom it is flighter, and more superficial, and whofe Complexion is stronger, and more hardy, hold out longer. But the Generality fuffer first, eminently, about the Meridian of Life. Hence the common Observation of those that die of a genuine Confumption, that they begin to feel it first before Thirty-fix.

§. IV. THERE is no chronical Distemper whatsoever more universal, more ob-N stinate,

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stinate, and more fatal in Britain, than the Scurvy, taken in its general Extent. Scarce any one chronical Diftemper but owes its Origin to a scorbutic Cachexy, or is fo complicated with it, that it furnishes its most cruel and most obstinate Symptoms. To it we owe all the Dropfies that happen after the Meridian of Life, all Diabetes, Asthmas, Consumptions of several Kinds, many Sorts of Colics and Diarrhæas, some Kinds of Gouts and Rheumatisms, all Palsies, various Kinds of Ulcers, and, possibly, the Cancer itself, and most cutaneous Foulnesses, weakly Constitutions, and bad Digestions, Vapours, Melancholy, and almost all nervous Diftempers whatfoever. And what a plentiful Source of Miseries these last are, the Afflicted best can tell. And scarce any one chronical Distemper whatsoever, but has some Degree of this Evil faithfully attending it. The Reason why the Scurvy is so \* endemic a Distemper, and so fruitful of Miseries, is, that it is produced by Causes mostly special and particular to this Island; to wit, The indulging fo much in animal Food, and strong fermenting Li-

\* Peculiar to this Country.

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quors, in contemplative Studies, and fedentary Professions and Employments, (and thence the want of due Labour and Exercise) together with the nitrous Moisture of an Island, and the Inconstancy and Inclemency of the Seafons thence arifing. I have had many Occasions to shew, how fuch Caules must necessarily and naturally produce fuch Effects. I will here only touch the Matter flightly, to point out the Connexion. Animal Foods, and Strong Liquors, to Excess, and with Continuance, must load and charge the Fluids with their Salts. Want of due Exercise must suffer these to unite in Clusters, and increase their Bulk in the finall Veffels. Their larger Bulk, and greater Acrimony, thence arifing, must increase the Viscidity of the Fluids, by breaking the Bloodglobules, and so coagulating the Mass, and at last obstruct the finer Pipes, and all the smaller Glands; whereby the Tone of all the elastic Fibres must be interrupted and broken, and their Vibrations flopp'd at every obstructed Gland, and capillary Vessel, and an universal Disorder produced in the whole animal Oeconomy. And this Diforder will operate, and fhew itself, in Symptoms special and particular, N 2 ac-

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according to the special and particular Make and Conformation of the Parts, the Weakness or the Strength of the Organs, the particular Milmanagements, and precife State of the Air the Party lives in. And the Detail of these general Causes, applied to particular Persons, must produce the respective Diseases mentioned. In a Word, The Scurvy is a kind of catholic Distemper here in Britain, arising from constant and general Causes, from the Customs of the People, and from the Nature of the Climate, which renders the ferous Part of the Blood too thick and glewy, breaks and divides the Union of the globulous Parts, obstructs the small Vessels, and destroys the Springiness and Elasticity of the Fibres: So that most chronical Distempers can be little else but Branches and Cions from this Root, which (like Pandora's Box) is fo fruitful of Variety of Mischiefs. And its arising from the Climate and Customs of the People, is the Reafon why chronical Diffempers are fo frequent in Britain, to what they are in warmer Climates (which, by a freer Perspiration, and lighter Diet, not only prevent those Diseases in their own Inkabitants, but universally cure those of our

our Island who are afflicted with them, if they flee to those Regions any reasonable Time before Nature be quite worn out). For though the Inhabitants of Britain live, for the most part, as long, or rather longer than those of warmer Climates; yet fcarce any one, especially those of the better Sort, but becomes crazy, and fuffers under some chronical Distemper or other, before they arrive at old Age. The fame Reason is to be affigned for the Frequency of Self-murders here, in England especially, beyond any other Country. For few have Grace and Refignation enough, to fuffer patiently the lafting Pains of a chronical Distemper, or the yet more torturing and crucifying Anguish of a perpetual Despiritedness; though I have obferved generally, and have good Reafon to conclude universally, That all Self-murderers are first distracted and distemper'd in their intellectual Faculties. Notwithstanding the Diffusiveness and Universality of this Difease, so that scarce a fingle Individual of the better Sort is altogether free from it; yet I never once in my Life faw it totally extirpated in those who had it to any Degree, fo as to be intirely free from it all the reft of their Lives after; but N 3 that

that it still appeared, and sprang up again, in some Symptom or other, and at last brought forth that grand one, which put a final Period to all their Sufferings. One good Reason for this is, That it requires a Regimen and Conduct fo intircly contrary. and opposite to the natural Habits and Customs, and the universal Bent and Appetites, of the Inhabitants of this fland, that it becomes a kind of perpetual Selfdenial to them; which the British Nation in general does not mightily admire. Another Reason is, That fine Folks use their Physicians, as they do their Laundresses; send their Linen to them to be cleaned, in order only to be dirtied again. Nothing lefs than a very moderate Ufe of animal Food, and that of the Kind which abounds least in urinous Salts, (as most certainly the young and the lightercoloured do) and a more moderate Use of spirituous Liquors, due Labour and Exercife, and a careful guarding against the Inconstancy and Inclemency of the Seasons, can keep this Hydra under. And nothing else than a total Abstinence from animal Foods, and strong fermented Liquors, can totally extirpate it: And that, too, must be begun carly; before, or foon

foon after, the Meridian of Life; or elfe there will remain too little Oil in the Lamp, the Spirits will fink too far, ever to be recovered again; and the remaining Part of Life will be too fhort for fo total a Change as must be made: So that those who fuffer greatly under this British Distemper, must be contented to bear and forbear a little, and must expect no greater Degree of Health, than their Time of Life, the Nature of their Disease, and the State of their Constitu. tion, will admit of. But still a great Moderation in animal Foods, and spirituous and fermented Liquors, due Exercise, and a Care to fence against the Injuries of the Weather, will make Life tolerably cafy; especially if some gentle domestic Purges be interspersed. The Seeds and young Sprouts of Vegetables have scarce any gross, fixed, or essential Salts at all in them. This is not only evident from the Reafons formerly given, (because they are young, or the Nourishment appointed by Nature for young Vegetables; for the Earth is only a proper Neft or Matrix for them; and the Sun's Heat ferves them instead of Incubation) but, upon Trial and Examination, N 4

mination \*, they yield none, being too light and thin to calcine and incinerate, and the Salts too volatile (and, confequently, small, and fit to pass by Perspiration, and thereby can be no way injurious to human Constitutions) to endure the Fire; which full-grown Plants, their Stalks and Wood, readily do. And, in unfermented Liquors, the Salts are fo inveloped, that they cannot unite to form a Spirit; and are fo sheathed, by particular Coats of the Materials of the Vegetable, that they can fcarce do any Harm (except when they exceedingly abound) to animal Bodies. Hence it comes to pass, that a vegetable Diet for a few Weeks or Months, together with drinking Water, or unfermented Liquors, (fuch as Tea, Coffee, Barley-water, Liquorice-water, Teas made of Oranges, or other Seeds and Plants) will fasten the Teeth when dropping out, from a Confumption of the Gums by fcorbutic Salts; cure any cutaneous Foulneffes or Eruptions, and even any fpreading Ulcer, if it is not scrophulous, when no

\* See Lowth's Abridg. of Philosoph. Transact. V. 2. p. 661.

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Medicine on the Face of the Earth will touch it. Hence the grand Maxim, in the Cure of all Ulcers, is, by Diet to bring them to the State of a Wound, and then they will cure of themfelves. And, as I have elfewhere obferved, there is scarce a thin, consumptive, hysteric, or hypochondriac, and weakly Conffitution in England, which has not for its Parent, a latent or manifest scorbutic Cachexy, excepting that which arifes from a Scrofula. From the Whole we may gather, how much a proper Regimen of Diet, and due Exercife, with the other Helps and Remedies already mentioned in this Treatise, is able to do in most British chronical Diffempers.

§. IV. HAVING had fo often Occafion to speak of weak and relaxed Nerves, it will not be amiss to *fuggest* some of the outward and most sensible Signs and Characters, whereby it may be manifest, whether one's Self, or any particular Perfon he is concerned for, be of this Make and Constitution, before some chronical Distemper, or other dismal Symptom, has made it plain; in order to prevent these, as far as possible: To which Purpose, we must observe, that the Nerves are Bundles

Bundles of Solid, Springy, and elastic Threads or Filaments, (like twifted Catguts or Hairs) whose one Extremity is terminated at the common Senfory in the Brain, where the Soul is supposed to refide ; the other is interwoven into every Point of the Scarf-skin, the Membranes, the Coats of the Veffels, the Muscles, and the other sensible Solids of the Body, in order to convey the Motions, Actions, Vibrations, or Impuljes, of outward Objects to the Soul. These Threads or Filaments are highly elastic or springy, as we may fee from their hardened Substances, such as Whalebone, Ivory, Horn, and Cartilages, which are more eminently fo, than any other Bodies known. Some Perfons have their Fibres very quick, readily vibrating, highly (pringy and elastic, so as to tremble and shake violently, by the least Impulse. Others have more rigid, firm, and fretched Fibres, which yield not but to ftrong Impreffions, and move flowly, but move for a long time. Lastly, There are those who have weak, loofe, flender, and relaxed Fibres, which, though cafily moved, and yielding to the weakest Impulje, yet communicate only imperfect, languid, and faint Impressions and Vibrations to the

the Soul, and have all their other animal Functions of the fame languishing Nature. And 'tis of these last, I have been all along fpeaking. And we may readily difcover them, by these out-ward Characters and Signs. 1. Those who have naturally soft, thin, Small, and short Hair, are of a loose, flabby, and relaxed State of Nerves. For the Hair feems to be fome of the fleshy Fibres, only lengthened outwards, and hardened. At least, like the Fibres, they confift of a great many lesser Filaments contained in a common Membrane; are solid, transparent, and elastic : And as these Hairs are in Strength and Bulk, fo, generally, the Fibres of the Body are. 2. Those of the fairest Hair, are of the loofest Fibres, (other Things being equal) because the Fairest are more rare, porous, and fungous : and because Bodies of the lighter Colours confift of smaller Parts, than those of the more flaming Colours; as has been formerly obferved. 3. Those of large, or (as they are called) mastiff Muscles, and of big Bones, are generally of a firmer State of Nerves, than those of little Muscles and Bones; because the Muscles and Bones being similar to their Fibres, as is highly pro-

probable; and these being bigger, aud confequently ftronger; fo must those be: And, on the contrary, 4. Soft, yielding, pappy Flesh, is a fure Symptom of loofe Fibres; whereas hard, firm, and unyielding Muscles are the constant Sign of firm Fibres. 5. A white, fair, blanched, or ashen-coloured Complexion, or Skin, conftantly indicates a weaker and more relaxed State of Fibres, than a ruddy, fresh, dark-sallow, or black Hue; for Reasons already given. 6. A fat, corpulent, and phlegmatic Constitution is always attended with loose, flabby, and relaxed Fibres, by their being dissolved and over-foaked in Moisture and Humidity : And, on the contrary, those of a dry, clean, and firm Make, have strong, firm, and tense Fibres. 7. Those who are subject to Evacuations of any kind, in any Degree greater than what is natural; and those who, by any Accident, have suffered long by any preternatural Evacuation whatfoever; are or become of loofe, relaxed Fibres and Nerves. Thus those who frequently run into Purging, or Floods of pale Water, flow at the Mouth or Nose, or melt into profuse Sweats; those who any way have lost much Blood, have had a Diarbaa, have recovered of

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a Fever; and those of the Sex who have purified longer or more than is ufual; all of these are originally, or become accidentally, of weak and relaxed Nerves and Fibres. 8. Lastly, Those who are of a cold Constitution, are apt to run into Coldnesses on their Extremities, or ready to catch Cold, are also of weak and loose Fibres and Nerves; because these are Signs of a flow and interrupted Circulation and Perspiration; which manifess a weak Spring in the Fibres of the Coats of the Vesses, the Fibres of the Muscles, and a Weakness of the Spring of the Scales of the Scarf-skin.

§. V. On this Occasion of rehearing the Signs of weak Nerves, I cannot omit apprifing those of the breeding Part of the Sex, and those who are concerned in them, of their Readiness of Miscarrying, unless duly tended and managed, especially those of them of tender and weak Nerves, or of too delicate a Constitution. The Signs I have now laid down, will always make it evident, if any particular Person is so, or not. And if, upon Examination, they be found to be such, they will be apt, upon the slightest Occasion, to run into frequent Mis-

Miscarriages; whereby a great Part of their Posterity will be defiroyed, and they themselves exposed to Dro fies or Confumptions, or (which is worfe than either) perpetual Lowness of Spirits, Vapours, and other hysteric Disorders. And, by this Misfortune alone, a confiderable Part of the better Sort here in England perifh and are loft. Nature has formed the Generality of the Sex of a foft, slender, and delicate Make. Want of due Exercise, a full Table, indiscreet Nurses, overfond Mothers, and hereditary Sharpneffes, make them much more fo. And if, by Neglect or Accident, they once begin to miscarry, every first Miscarriage paves the Way for a second, and a third, and fo on, till the poor, pretty Creature has neither Blood nor Spirits, Appetite nor Digestion, left. For one Miscarriage weakens the Constitution, breaks and tears the nervous System, more than two mature Births. If ever this is to be fecured or prevented effectually, 'tis to be done, at least attempted, in the first Instance, if possible, at least as soon as may be, before a total Relaxation and Diffolution of the nervous System is brought on. The Giddiness, Ramping, and Gadding about, of the young Creature

ture herself, is often the Cause of her Miscarriage; but oftener the Forwardness and Indiscretion of Surgeons and Midwives, by Bleeding, on every little threatening Symptom, without confidering the Constitution. Bleeding may do well enough in fanguine, robust, and plethoric Conftitutions : But 'tis Death, and certain Ruin, to those of flender and weak Nerves; and the fureft Way to caufe the Miscarriage 'tis defigned to prevent, by relaxing the nervous Fibres; which Bleeding does as certainly, as it leffens the Quantity of the Blood. The most effectual Method I have ever found to prevent fuch Misfortunes, is, To order those in fuch Circumstances, to drink plentifully of Bristol-water, with a very little red Wine, for their constant Drink; to lay the Plaister ad Herniam, with Oil of Cinnamon, and London Laudanum, in a due Proportion, to their Reins; to keep them to a low, light, eafily-digested Diet, especially of the farinaceous Vegetables, and Milk-meats; to strengthen their Bowels with Diascordium, and toasted Rhubarb, if they become too Rippery; to air them once or twice a Day, in a Coach or Chair; and to keep them chearful, and in good Humour, as much as may

may be. This Method will fcarce ever fail, unlefs a latent Scrofula, or fome other hereditary Sharpness in their Juices, deftroy the Birth.

§. VI. THE Tender, Sickly, and those of weak Nerves, ought to have a Regard, in the Conduct of their Health, to the different Seafons of the Tear. I have elfewhere \* observed, that such Constitutions begin to fink, droop, and languish, about Christmas or Midwinter; go on from worse to worse, till the Spring is over ; get up a little, as the Sun grows higher and stronger; arrive at their meridian Altitude of Health and Strength about Midfummer; and hold it out fo long as the Sun warms them, or the Strength they have acquired lasts. Those who have very weak Nerves, fail sooner, even about the Autumnal Equinox: But they get up sooner, because their weaker Nerves make lefs Resistance. The Sun new-ferments, rarefies, and exalts their viscid Juices: So that the Circulation is better performed, more full, free, and universal. The Perspiration is also thereby much increased and pro-

\* Effay on the Gout.

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moted : And the Load being drawn off, by the Force of the Sun's Heat; their Appetite is sharpened, and their Digestion mended : To which the serene, warm, and clear Air, and the greater Liberty of Exercife and Business contribute. I fhould advise fuch, therefore, religiously to follow the Indications of Nature, and to take these Benefits it offers then, as a certain Sign of their being best and fittest for them. After Christmas, and in the Beginning of the Spring, Milk, Eggs, and Spring Herbs, as Asparagus, Spinage, and Sprouts, come in first: Of which I advise them to make the greatest Part of their Diet then. As the Spring advances, Lamb and Veal, Green Peas and Salading, abound. After the Vernal Equinox, Chicken and Rabbet, young Turkeys, and early Fruit, come in Season. About Midsummer, Mutton and Partridge, Cauliflower and Artichoke, may be had. And Autumn brings in Beef and Venison, Turnep and Carrot. And it will be found, the concoctive Powers of weak Perfons, and those of relaxed Nerves, rise and fortify gradually, as these stronger Foods come in Seafon. By Seafon, I mean not, those earlier Days, that Luxury in the Buyers,

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Buyers, and Avarice in the Sellers, about London, have forced the feveral Kinds of Vegetables and Animals in : But by Season, I mean, that. Time of the Year, in which, by Nature, common Culture, and the mere Operation of the Sun and Climate, they are in most Plenty and Perfection in this Country. But the principal Point I would urge, is, That such Persons would regularly begin to correspond with Nature, in both leffening the Quantity, and lowering the Quality, of their Food, as the Seafons indicate, and Providence provides the proper Food in greatest Plenty and Perfection: By which they will preferve the Balance of their Health pretty near equal all the Year round; have the lightest and least Food, when their concoctive Powers are least, and their nervous Fibres weakest; and rise in the Food, in proportion as these rife. Add to thefe, That as Winter is best for Home Exercises, Summer is fittest for those without Doors. And, as the Day lengthens, their Labour and Exercises Abroad ought to be lengthened out. Neither Sydenham, nor Fuller, have been able to tell the Half of what obflinate Exercife

and LONGLIFE. 195 Exercife will do, in low, cachectic, consumptive Cases.

#### \* — Labor omnia vincit Improbus. — HORAT.

. §. VII. THE Germans have a Proverb, That wise Men ought to put on their Winter Cloaths early in Autumn, and put them off late in the Spring : By which they would infituate, that People ought always to go well-cloathed. Whatever may be in this, as to Perfons that drink hard, and require a plentiful Difcharge by the Skin, those who are fober, or who would render themfelves hardy, ought to accustom themselves to as few Cloaths, both in Summer and Winter, as is possible. Besides the general Rules, of having as few Necessaries as may be, much and heavy Cloaths attract and draw too much by Perspiration; as Dr. Keill proves, in his Med. Static. Britan. tender and debilitate the Habit, and weaken the Strength. The Cuftom of wearing Flanel is almost as bad as a Diabetes : Nothing

\* q. d. Unwearied Exercife will overcome any chronical Diftemper.

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can enfeeble and drain weak and tender Persons more. To make this clear, we must distinguish between Perspiration and Sweating; which differs as widely, as the daily natural Emptying our Bowels, and a Looseness or Diarrhæa. And, as nobody in their Senfes, much lefs the Tender and Weakly, would endeavour to encourage this last; no more ought they that other of Sweating. For as promoting flippery Bowels would always keep the Fibres of the alimentary Passages relaxed; fo would perpetual Sweating, those of the Skin. And as the Moisture and Damps that Flanel perpetually keeps the Skin in, and its growing fo readily dirty, shews what a Flux of Perspiration it promotes there; so the perpetual Fri-Etion produced by it, gives the Reason. If one lays on a superfluous Load of ftrong Liquors, 'tis happy for him Nature difcharges the Ocean any-how; for he had better sweat, than burn in a Fever. But for temperate, tender, and fickly Perfons, the more firm and tight all the Organs of their Evacuations be, (if they be not totally obstructed) the better it will be for them, the more it will strengthen their Nerves, and harden their Constitution.

tion. Nothing but Superfluity in Food, or strong Liquors, requires Sweating: And that is the Reason the Germans run so much upon it : So far, that \* Tichrinhaus, a very learned and ingenious Gentleman otherwise, resolves the Cure of almost all Distempers into Sweating, upon observing its Success in their Bottle-Fevers. They drink much thin, sharp Wine, which passes every Way; and, when it comes through the Skin, both the Conflict, and the Danger, is over. But for those Inhabitants of our Islands, who are sober because they are tender, or would preferve their Health; the lighter and fewer their Cloaths are, both by Night and by Day, in Summer and Winter, the hardier they will grow. The more open the whole Body is to the Air, provided it be benign, the more fluid, and the more active, will the animal Juices be; and, by consequence, the more full and free will the Perspiration be. For right-temper'd Air is beneficial and medicinal to the animal Juices : And a great Heap of Cloaths only condenses our own excrementitious

\* In his Medicina Mentis & Corporis.

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Atmosphere about us, and stops the kindly Influence of this beneficial Element. As to catching Cold, he that lives soberly, and avoids nitrous, that is, moist or frosty Air, will either not readily catch Cold, or, if he does, will soon get rid of it. It is only Air thus conditioned that thickens and coagulates our Juices, and gives painful and dangerous Colds. It is inward Heat only, which destroys us. No sober Persons ever suffered by Cold, unless it were extreme or that they expose themselves obstinately to it, against Sense and Reason.

6. VIII. ANOTHER Mean of Health, to the Tender, Studious, and Sedentary, is much and often shaving the Head and Face, and washing, Scraping, and paring their Feet and Toes. The great Benefit (beside the Pleasure) to the Head, Eyes and Ears, by often shaving the Head and Face, and washing them daily in cold Water, with a few Drops of the Compound Spirit of Lavender, or Hungary Water, is best understood by those that have felt it. The cutting off the Hair, and faving the Head, will, in the first Instance, scarce fail to cure a Head-ach, a Fluxion, or even a nervous Weakness of the Eyes. Any

Any one Evacuation will not only lesien the whole Mass; but, if encouraged, will make that Evacuation more ample and full. The more and oftener the Hair is shaved, the faster and thicker it will grow : So that thus shaving the Head and Face frequently, will be like an Isue, or perpetual Blister, on these Parts. Besides, the washing with warm Water and Soap, and scraping the Skin with a Razor, will cleanse the Mouths of the perspiratory Ducts, from that Morphew and Scurf that adheres to them; and will extremely encourage the Perspiration from these Parts, and give a full and free Vent to the Fumes on the Head and Brain. And washing well, and dipping in cold Water afterwards, will shut the Scales of the Scarf-skin, and secures against catching Cold in the Head, which is frequently a heavy Grievance to tender, Studious, and sedentary Persons. Therefore I should advise such to shave both Head and Face every Day, or every other Day, or as often as they possibly can, and wash them well in cold Water afterwards. What shaving does to the upper Parts, the fame do washing and scraping the Feet, and paring their Nails, to the lower. We know by the Ticklishness 04

klishness of the Soles, what a Multitude of fine nervous Fibres terminate in them. Walking, Standing, and Treading, render them callous, and the Skin thick and hard; which much injures the Perspiration, and hinders the Derivation of the Blood and Spirits into them. And 'tis a common Observation, That nothing is a furer Sign of strong and rank Health, than a kindly Heat, and a profuse Perspiration on the Feet. It shews a full and free Circulation in the fmall Veffels, at the greatest Distance from the Source of Heat and Motion; than which nothing can more plainly indicate great and good Health. On the contrary, weak and tender Perfons are always cold in the Legs and Feet, and first of all feel Cold there in frosty Weather. Let the Tender therefore, and the Weakly, duly once a Week, wash in warm Water, rub, scrape, and pare their Feet and Nails : Which will likewise prevent Corns, Hardnesses, and the unnatural Tendency of the Nails into the Flesh. These are, 'tis true, but low and feemingly trifling Observations towards Health: But 'tis in this Cafe, as'tis in a more momentous one: He that despiseth little Things, shall perish by little and little.

§. IX.

§. IX. THOSE tender and valetudinary People, whole Studies or Profession oblige them to read or write much, ought, as far as they possibly can, to stand in an crect Posture, bending their Head and Breast as little as may be, leaning only on a *floping Desk*, and continuing their Exercises in that Posture, till they grow weary; then rest, and be at it again. Custom and Practice, obstinately perfisted in, will at length render the Posture easy to them. And 'tis inconceivable, how many and great Advantages it will bring to the Constitution. Sitting, Bending, and Leaning low, compress fome, if not many, of the Veffels of the Body, and fo stop and retard the Circulation of the Blood and Juices through them; which makes a more ready Flux through the other more potent and pervious ones: Whence that Sleepinefs, and Disability to Motion in the Limbs, till the Blood and Spirits, by a proper Po. sture, get a free Admittance into them. From this, alfo, there enfues an unequable and subfultory Circulation of the Fuices, and an unequable Secretion in the Glands; and, confequently, an unequal Growth, Strength,

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Strength, and Vigour, of the Organs and Parts: Which is the Caufe of Rickets in Children; careless Nurses neglecting to rock, dandle, and to's them fufficiently, that the Circulation of the Juices and Spirits may be equally promoted every-where. And to avoid this Inconveniency, feems to be the Reason why the Romans, and the Eastern Nations, lay along, at their great Meals and Feasts, and when they were obliged to continue long in one Posture : Besides that, in Writing or Reading, if one sits, there is a constant Pressure on the Cavity of the Breast and Stomack, which must necessarily weaken their Fun-Etions; and these are commonly the Organs which first decay in Clerks and Under-Secretaries. And hanging down the Head, is the ready way to raife Fumes and Vapours to it; whereby fuch will be exposed to Lowness of Spirits, and, perhaps, Confumptions; all which are, in a great measure, avoided by an creft Posture : For thereby all the Organs will be in their natural Situation. Many of the Muscles will be in Action, and fo prefs on the Blood-veffels, to facilitate the Circulation. But chiefly, by this creft Posture, the Juices will have the Advantage of

of their own Gravity, to descend with the greater Velocity, to warm and cherists the lower Parts, which are remotes from the Source of Motion; and the grosser Evacuations will be more readily promoted, and thereby preferve the upper Regions clear and serene: Which will bring great Advantages towards Health and Long Life. But this Practice will never become easy, unless to those who begin young. Those who dictate or confult, ought to do them standing, or walking, which would relieve both Body and Mind.

§. X. THE Unwieldy, Fat, and Overgrown, befides the Rules already laid down, I advise, in particular, as much as is possible for them, to abstain from Drink of all Kinds. No one Rule or Condition ever was contrived, or can be of fo great Use, to preserve and lengthen the Lives of fuch, as an obstinate and universal Abstinence from all Kinds of Liquors. If the Doctrine be true, (as 'tis highly probable) that the Mass of all the Bodies of Vegetables and Animals is only Pipes, and vascular Tubes, formed all at once, in their first Rudiments and Seeds; then Growth and Increase of Bulk is only filling

filling and plumping up, dilating and unfolding these Pipes with Liquors. We know, from Kircher's and Doctor Woodward's Experiments, to what Bulk Vegetables will thrive, by mere Element alone. Two Pigs of the fame Litter were fed upon an equal Quantity of Milk; only, to one of them, the Milk was mix'd with the fame Quantity of Water. After a Month's feeding, they were both killed; and that which had the Water, was found much larger and fatter than the other. Dropfies (at least Anafarcas) have been cured by an obstinate Forbearance of Drink. And Lethargies proceed from the Moisture of the Brain. And these are the two Distempers, unwieldy, fat, and overgrown Perfons are most subject to. Therefore, fuch ought to avoid Drink, as those do, who have the \* Hydrophobia, or are bit by a mad Dog. Which they may eafily bring about, if they feed only on young animal, and moist and cool vegetable Food. But whenever I speak of vegetable Food, I mean that which is dreffed by Fire.

\* i. e. Dread of Water; a Disease so called, proceeding from the Bite of a mad Dog.

§. XI.

. §. XI. To the Aged, and those who are passing off the Stage of Life, I have only two Things to recommend, if they would make the last Hour as easy, indolent, and free from Pain as may be. The first is, That they would avoid the Injuries of the Weather, as much as ever they can. The Blood of the Aged is ever most certainly poor and viscid; their Perspiration little, or none at all, and their concoctive Powers weak : And confequently, they must be subjected to, and fuffer by, the weakest Injuries of the Weather. Therefore I advise fuch to keep Home, provide warm Rooms and Beds, and good Fires, whenever the Sky lours, Winds blow, or the Air is sharp. Such are not to expect to raife, improve, or exalt, their Constitutions or Health. Freedom from Pain, to prevent the vital Flame's being extinguished by Accidents, and to have it burn as clear and as long as Nature, at their Age, has defign'd it should, is all they ought to aim at. Exercise is only to purge off Superfluities. If these therefore be careful not to exceed, they will want none, nor would it much contribute to their Ease. For, in old Men, the

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the Bones petrify; the Cartilages and Tendons turn into Bones; and the Mufcles and Nerves, into Cartilages and Tendons. And all the Solids lofe their Elasticity, and turn, in a great measure, into that Earth they are going to be diffolvea into: So that the Solids wanting Elasticity, Exercise can do but little to shake off the Load. It will therefore be enough for fuch, to air themselves when the Jun lights them, and the Summer Breezes can refresh them. Or, if they would lengthen out their Days, to remove to 'a warmer Climate, by which they may live as long as the Crow. The second Thing I would advise such, is, To lessen their Diet gradually, as they grow older, before Nature has forced this Diminution upon them. This is a powerful Mean to make their old Age green and indolent, and to preferve the Remains of their Senses to the very last. By this alone, Cornaro lengthened out his Days, and preferved his Senses, in a great measure, intire to a hundred Tears. He gradually leffened his Diet so far, that, as his Historian informs us, he came at last to live on the Tolk of an Egg three Days. I will not take upon me to advise others, in what Mea-

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Measure, either of Time, or Quantity of Food, they ought to diminish. But this, I think, they ought to confider, That fince 'tis certain aged Persons become Children, as to the Weakness of their Digestions, they ought to diminish, as Children increase in their Food, from weaker to weaker, and from less to less. For as their Solids are unelastic, their concoctive Powers weak, their Perspiration little, and the Expences of living fcarce any, their Repairs (not to overlay the Spark of Life remaining) ought to lessen proportionally. And 'tis to the Neglect of this, in aged Persons, that those Rheums, Catarrhs, Wind and Colics, Loss of Memory and Senfes, those Aches and Pains, and all that difmal and black Train of Miseries, that wait on Long Life, are mostly owing; which, by a difcreet and timeous lessening their Diet, might, in a great measure, be prevented.

§. XII. THERE is no Mastake more fatal in the Cure of chronical Distempers, incident to the Weak and Tender, than the vain and unjust Expectation they entertain of a sudden and quick Cure, or even of a sensible Relief. This, with their 208 An Essar of HEALTH

their Inconftancy, and Impatience of being confined in their Appetites, makes them either throw off all Remedies and Reftraints in Defpair, and give themfelves up to an habitual Indulgence in all those Things that brought on or exasperated the Distemper, or run about changing from Doctor to Doctor, till they end with a Quack, or die under the Hands of a Mountebank, and are fool'd out of their Lives and Money at once. It is furprifing, that reafonable Men can imagine, that, in any fmall Time, any poslible Methods or Medicines should cure, or even fenfibly relieve, a Diftemper, that, perhaps, was brought with them into the World, and interwoven with the Principles of their Being; or, at least, may have been ten or twenty Years a breeding, by Exceffes, or an indiscreet Regimen. I know no fitter Similitude of the Cafe, than the annual Income of an Estate just sufficient to keep one in decent Necessaries, and due Plenty and Cleannefs. If one that has fuch an Estate, run out every Year, for Ten or Twenty Years, and then fet about to retrieve, before he be come to Starving or a Gaol; would we not count him mad, if he should imagine,

gine, by Retrenching, Management, or Saving, even joining to those Day-labour, that a few Months or Years would recover all, and bring his Effate to its first Condition? No! he must labour, abstain, and manage, for feveral Years; and the Time required will be always in a Proportion compounded of the Rate of his former Expences, and his prefent Saving : That is, If his Expence were but small, and his Savings great, the Time will be the shorter, in respect of the Time he continued his overspending. If he gives over Saving, he must at last most certainly starve, or go to Gaol; and if he begins to fave in due Time, he will certainly retrieve all; but the Whole confifts in Labour and Saving for a due Time. Exceffes and an undue Regimen, is running out of one's Health; which, without a proper Remedy, as Labour and Abstinence, will neceffarily bring a Man to Difeases or Death. And these must be continued a Time proportioned to the Greatness of the Excesses, with regard to the Labour and Abstinence. Most chronical Distempers have, for their Parents, corrupted Fluids, and broken Solids, as has been shewn. A bad State of the Stomach, P and

and alimentary Organs, either beget these, or accompany them. Suppose, for Example, the Cafe be a scorbutic Habit, shewing itself with Blotches, and a watery Ichor, or Bumps, with yellow or black Spots on the Skin, a thick, viscid rheumatic Blood, an obstructed Liver, and a constant Overflowing of the Gall, Oppreffion of Spirits, want of Appetite and Digestion, and thereby a Wasting, Lassitude, Inquietude, &c. which I have often met with in your Bons Vivants, and your Free-livers, who have been born healthy, vigorous, and lively: I know no way in Nature to relieve and effectually cure this Cafe, but by often-repeated gentle Vomits and Stomach Purges, as the Choler (which certainly degenerates into Phlegm, before the Cure be brought about; for Phlegm is but Choler more diluted, or the groffer Part of the Serum only, as Choler is that of the whole arterial Fluid; and, when Choler is come to Phlegm, the Cure is half carried on, one Part of the Fluids being already purified, and the Liver free and open; As the Choler, I fay) and the Phlegm arifes and loads the alimentary Paffages; Bitters, Aromatics, and Steel, varied, and preferibed, according

ing to the Strength of the Patient, and one Kind as another has loft its Virtue; chalybeat and mineral Waters; constant Labour and Exercise; a cool, light, spare Diet, and constant proper Regimen, long and obstinately persisted in. The Patient will often complain, What! Vomits and Bitters, Galloping and Fasting for ever ! Vomits only relieve for a few Days, but do not cure : We grow as bad as ever again, and, in fome Months Perfeverance, find ourselves just where we began. New Doctors must be had; and they must either be cashier'd, if they pursue the fame Intentions, (which, if they be honest Men, they must do) or else must write Things that can neither do Good nor Harm, or those which will actually hurt, for their Fees, (for there is no Medium) till the miserable Person has run thro' the whole Faculty, and at last got into the Charlatan Tribe. It is certain, that when Nature has begun to throw the gross and viscid Parts of the Juices on those loose and spongy Glands, it will continue fo to do, till it has dephlegmated the whole Mafs; and every new Vomit will make room for another; and there is no other Remedy as long as P 2 there

there is any viscid Humour remaining, nor can the Decline of the Difease be difcover'd fo certainly by any thing, as by the Leffening of the Quantity excerned, and the Lengthening of the Intervals: As, in a Veffel of Oil and Water incorporated, a fure way to feparate the Oil from the Water is, to skim it off as it comes to the Top. Now, as long as there is any Oil remaining, it will fwim, if you but give it Time to extricate itself from the Embraces of the Water; and then you may separate the viscid Mixture intircly. No great Purpose in Life was ever brought about, but by Time and Patience, and by constantly purfuing the most natural and best approved Means that lead towards that End. Nature works not by fudden Jumps and Starts, but goes on steadily, fortement et doucement, and 'tis Nature that is the true Phyfician : Art only removes Obstacles, checks Violences, and greatly folicits Nature the Way fhe tends. This requires Time and Patience. Tempus edax Rerum. It most certainly confumes chronical Diseases, if not faclled and fed : Nothing elfe can.

§. XIII.

§. XIII. IN fine, Providence has been kind and gracious to us beyond all Expreffing, in furnishing us with a certain Relief, if not a Remedy, even to our most intense Pains, and extreme Miseries. When our Patience can hold out no longer, and our Pains are at last come to be infupportable, we have always ready at hand a Medicine, which is not only a prefent Relief, but, I may fay, a standing and constant Miracle. Those only who have wanted it most, and have felt its friendly and kind Help in their Tortures, can beft tell its wonderful Effects, and the great Goodnefs of Him who has bestowed it on us. I mean Opium, and its Solution Laudanum; which, when properly prefcribed, and prudently managed, is a most certain and sudden Relief in all exquisite and intense Pain. The Manner of its Operation may be gathered from the Obfervations I have made in the preceding Treatife. Pain constricts, crisps up, shortens and contracts animal Fibres: It acts like a Wedge, in tearing, rending, and dividing these small Filaments; it does to them in a living Body, what the Points of Salts do to all animal Substances, which

are

are to be preferved for Food; viz. hardens, stiffens, and contracts them. The Fibres of live Animals being contractile, tonic, and fpringy, when a hard pointed Body enters them, (which is the Cafe in all bodily Pain) the Parts, by their contractile Nature, fly from, recede, and fhun, as much as poffibly they can, the wounding Inftrument. This appears in the large Gash of a Wound, made across the Fibres of a Muscle; in the continual Bending towards the other Side, when any Part of one is pained; in the Cramps and Convulsions, nay, and fometimes Fevers, produced by intense acute Pain. Pleasure, on the contrary, relaxes the Fibres, by a gentle, foft, and bland, or (as the Mathematicians speak) a commenfurate and harmonious Touch. It acts on the Fibres, as two unifon and concordant mufical Inftruments act on one another; and by ftroking, foftening, and fmoothing, comes, at laft, intirely to relax and unbend them. The Parts of the Fibres run after, follow and purfue, and at last break their Union in some Degree, to reach such a demulcent Touch. Some Perfons have had the Faculty to allay Pain, by gently imoothing 31B

ing the afflicted Part with their Hand; which, in fome meafure, was true of the Touching Doctor. Soft Oils, and emollient Herbs, with gentle Warmth, by relaxing the crifped Fibres, will allay Pain. Soft Beds and Cloaths, and tepid Baths, will relax and weaken the whole Habit. Now fince Pain fo certainly crifps up, conftricts and contracts animal Fibres, and fince Opiates infallibly, if duly dosed, relieve and ease Pain, I can see no possible Way it can effect that, but by relaxing and unbending these Fibres as much, or near as much, as Pain contracts and draws them up. And that this is the real Fact, we may observe from many Effects of Opiates. 1. Nothing is so powerful, or so certain, a Diaphoretic as an Opiate. Nothing caufes fuch plentiful Sweating, especially if joined with Volatiles, and promoted with plentiful drinking finall, warm Liquors. This it can do only by relaxing the Fibres of the Skin, and perspiratory Glands.' 2. Nothing fo much palls the Appetite, and weakens the first Digestions, as the frequent Use of Opiates; infomuch, that most People, after a liberal Dose of them, feldom fail to P 4 reach,

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reach, and never care for Food for a confiderable Time after, till their Effects are wrought off; which are the conftant Symptoms of a relaxed Stomach and Guts. 3. Nothing fo much promotes the Eruption of the Small-pox and Measles, the Expulsion of the Stone and Fœtus, the Monthly and the After-birth Purifications of the Sex, as Opiates; infomuch that, in difficult Births, they are now the only Refource of the Midwife Phyficians; and, when joined with Volatiles, will bring on the most powerful and vigorous Throes, in the most weak and languishing Constitutions. These Effects they can produce only by relaxing those Fibres Pain has contracted, and render'd unelastic, in some measure. 4. Nothing quiets and stops Cramps, Convulfions, and Hysteric Fits, so suddenly and certainly as Opiates do. And every one knows these arise from violent Contractions, and crifping up, of the mufcular Fibres. All thefe, and many more fuch Effects, Opiates produce, by unbending, loofening, and relaxing those Fibres violent and acute Pain had constricted and contracted, and by giving a Respite and Reprieve from its Tortures, and

and thereby allowing Nature (the only true Phyfician) to go undiffurbed about its own Work. The Way it ftops Purging, and cures a Diarrhaa, I take to be, by carrying off the fharp and watry Humours in the Bowels by Per-(piration, which Opium exceedingly promotes; by quieting those Spasms and Convulsions, and allaying those Stimulations excited by Purging; and fettling and calming the Violence of the Peristaltic Motion of the Guts, which burries off their Contents. 1 will not take upon me, here, to determine the proper Cases for Opiates, or their Doses : That is the Business of the Physician : But in general, I may fay, Where-ever Pain is acute, intolerable, and past enduring; where it may endanger Convulsions, a Fever, or Inflammation ; after premifing the proper universal Evacuations, (fuch as Bleeding, Bliftering, Cupping, Purging, or Glystering, as the Cafe requires, or will bear) Opiates then will most certainly relieve, and may be fafely administred. If the Cafe is attended with Vomiting, folid Opium will do beft; because it will be in a smaller Volume, and will not be fo readily rejected. If speedy Relief be required where there is

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is no Vomiting, then Laudanum will difperse soonest through the Habit; because Liquid, and joined with a spirituous Vchicle, will foonest effect the Defign, raife the oppressed Spirits more, and penetrate deeper and quicker. In common Cafes, a vinous Vehicle will be sufficient; because Opium is best diffolved in Wine, to make Laudanum. There are Four Cafes, in which 'tis abfolutely and eminently neceffary; the Colic; the Stone; the hard Labours, After-birth, and Monthly fluggish Purifications of the Sex, especially if attended with violent Pain, as is common in fuch Cafes; and in the Gout and Rheumatifm In the First, it ought always to be given with fome Stomach-purge, as Elixir Salutis, or Tincture of Hiera Picra, with Syrup of Buckthorn; and, in those of more tender Bowels, with Tincture of Rhubarb; especially if the Colic is in the lower Bowels, and attended with no Vomiting; in which Cafe an artificial Vomit is to be premifed, if Circumftances forbid it not. In the Stone, it ought to be given with Oil. of sweet Almonds, or in some soft Emulfion, to lubricate the Parts. In the Two last Cases, it ought always to be 23

be given with proper Volatiles, Antibysterics, and Attenuants. In violent and acute Pain, the first Dose ought to be large, at least from thirty to forty-five Drops of Liquid Laudanum, or its Equivalent in Opium, from two Grains and a half, to three and a half; and afterwards to be increased by fifteen Drops of Liquid, or half a Grain of Solid Laudanum, every Half-hour, till the Pain begin to remit; and then an intire Stop is to be put to its Administration. And thus the End will be obtained, without any Fear of Over-dofing. And the Truth is, there is lefs Hazard of that, than Perfons are aware. For those who die of an Over-dose of Laudanum in the Opinion of the World, would have lived few Days without it. For there are those that, by Custom, have brought themselves to two Drams of Solid, that is, near fix Ounces of Liquid Laudanum, a Day. And I know a Gentleman who took near three Ounces at once, instead of Elixir Salutis, and had never taken any in his Life before; who (though it extremely weakened his Stomach for fome time, and that he dozed almost a Month under it ) yet did well, and, for aught I know, is alive ftill,

ftill, though it be many Years fince. If the preceding Dofe be rejected by Vomiting, about a third Part may be fuppofed to ftay; and then the fubfequent Dofes may be proportioned accordingly. The Difference of Conftitutions will make no great Alteration here, fince very weak Perfons feldom fuffer very violent Pain, which is the only Cafe I am here confidering.

6. XIV. To draw towards a Conclusion: The Grand Secret, and fole Mean, of Long Life, is, To keep the Blood and Juices in a due State of Thinnefs and Fluidity; whereby they may be able to make those Rounds and Circulations through the animal Fibres, wherein Life and Health confift, with the fewest Rubs, and least Resistance, that may be. In spite of all we can do, Time and Age will fix and stiffen our Solids. Our original Frame and Make renders this unavoidable and neceffary. As, in the greater World, the \* Quantity of the Fluids is daily lessening and decreasing; so in our lesser World, after

\* Sec Sir Ifaac Newton's Princip.

limited

a limited Time, the Appetite and Concoctions failing, the Fluids are leffened and spent on the continual Repairs of the Solids; and thereby lofe their Nature, and become firm and hard. For by infinuating themfelves into all the Pores of the Solids, and the Interflices of their Parts, and streightening and damming up the fmall Veffels, which carry in Nourishment to the internal Substance of the Solids, and fo depriving them of their Moisture, and lubricating Juices, these Solids come at last to harden, stiffen, and fix; and thereby lofe their Elasticity and Springinefs. Here the Process is mechanical and necessary. Age and Time, by weakening the Concoctions, impairing the natural Heat, which confifts in a brisk and extended Circulation of the Juices, by the turning those Juices into folid Substances, and thereby fixing and hardening these Solids, and depriving them of their due Elafficity, the Fluids circulate with lefs Velocity and Force, and feldom reach the Extremities and smallest Veffels; but pass through the more patent and larger Veffels, by their biggest lateral Branches. And if with all these unavoidable and irremediable Circum-

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Circumstances, both the nutritious and ferous Part of the Blood, and the globular, become viscid, thick, and glewy, the Circulation must stop at last, and come to an End. Now 'tis certainly, in a great measure, in our Power to maintain the Juices in a due State of, Fluidity and Thinness, and to render them fuch, if they are not corrupted to an extreme Degree, fo that the remaining Part of Life be not too fhort for fuch a tedious Work. We certainly may dilute and thin any Fluid, that has an Inlet and Outlet. And the more fluid a circulating Liquor is, that is, the smaller and finer its Parts are, the less Force it will require to set it a going, and to continue its Motion. And in animal Bodies, the thinner and more fluid the Juices are, they will not only circulate by the lefs Force, and with less Resistance, (i. c. Pain) but alfo they will preferve, by their Circulation, the Solids the longer from stiffening and hardening. There is not a more mischievous, nor greater Mistake, than the common one, that thin Blood is poor Blood, which the Vulgar and Herd of Mankind are as terribly affrighted for, as outward Poverty and Want. For,

For, on the contrary, the thinnest and most fluid Blood is the richest, that is, the best Blood (if rich and good mean the fame Thing). For in hydropical, anasarcous, cachectic, and scorbutic Per-fons, both the serous and globular Part of the Blood is thick, glewy, and acrimonious, fo that it can neither get through the small Vessels, nor can it be long contained in them; but corrodes and frets them, and fo falls (at leaft, the thinneft Part of it) into the Cavities, and begets a Dropfy; or flops in and obstructs these fmall Veffels, and fo becomes an Anafarca or Scurvy. In all which Cafes, the ferous Part is overloaded with urinous Salts, and becomes a perfect Lixivium; fo that, by its Grossnefs, it cannot run into Globules, to facilitate the Circulation through the Capillaries, (for these fmall elastic Globules, by turning oval or oblong, wonderfully facilitate the Circulation of the Juices through the (mall Paffages) and the red or globular Part becomes a mere Cake of Glue; and thus the Quantity of Serum is increased, and the Quantity of the globular Part gradually lessened. And in this Sense (of a greater Proportion of Serum) this State of the Blood may be called

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called thin; but it can in no Senfe be called good Blood. The thinneft and most fluid Blood is ever to be look'd upon as the best Blood as confisting of finest and smallest Parts; which most readily runs into red Globules, and most cafily circulates through the capillary Veffels, which is the most folid Foundation of good Health, and Long Life. Now as nothing but indulging in ftrong high Foods, which the concoctive Powers cannot break and divide into Parts small enough to run into red Globules, or circulate through the small Veffels, but overflock them with urinous Salts, which run into Clusters, and first obstruct, and afterwards break, these small Veffels, and in wallowing in ftrong Liqours, which parboil and eat out the tender and delicate Fibres of the Solids; I fay, as nothing but fuch an Indulgence, and fuch Exceffes, long continued, and obstinately persisted in, can beget such a State of the Fluids and Solids, and fo bring on a Cachexy, which may end in a Dropfy, or some other fatal chronical Diftemper, according to the Habits, and particular Make and Constitution, of the Party, (for no Perfon 'that lived low and meagre, and drank only

only small and thin Liquors, ever became hydropical, if his Solids were originally firm, and his Fluids not tainted with some hereditary Sharpness, so I know nothing under the Sun, that can folidly and fully effectuate the contrary State of the Blood and Juices, to render them thin, fweet, and in a constant flowing Condition, but taking the contrary Measures, and keeping to a strict Regimen of a thin, fluid, spare, and lean Diet. We have no possible Way to attenuate, clean, and dilute a Vessel, full of gross, glewy, and foul Mixtures, that has only a fmall Inlet and Outlet, but by pouring into it a thin, clear, infipid Fluid, and by shaking it often and much. It is much the fame with an animal Body. No voluptuous nor lazy Person, unless he has had an original Conflitution of Bra/s, was ever a long Liver. And even then, as his Life has been more Mifery and Pain, than ever a sober Galley-flave endured, his End, and the latter Part of his Days, has been Rack and Torture, Horror and Despair. And though he has not had the Hope nor Consolation of a Martyr, yet his Sufferings have been far more exquisite and extreme. All those who have lived long, 0

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long, and without much Pain, have lived abstemiously, poor, and meagre. Cornaro prolonged his Life, and preferved his Senfes, by almost starving in his latter Days; and fome others have done the like. They have, indeed, thereby, in fome measure, weakened their natural Strength, and qualified the Fire and Flux of their Spirits : But they have preferved their Senfes, weakened their Pains, prolonged their Days, and procured themfelves a gentle and quiet Passage into another State. Gentle domestic 'Purges frequently repeated, due Exercise, and the Use of the other Means prescribed in the foregoing Treatife, will mightily contribute toward this End. But the Ground-work must be laid, carried on, and finished, in Abstemiousness; and though not in absolute Fasting, (for that is no ways required, and would be prejudicial) yet, in a thin, poor, low, light, and meagre Diet. All the reft will be insufficient without this. And this alone, without these, will suffice to carry on Life, as long as by its natural Frame it was made to last, and will make the Passage easy and calm, as a Taper goes out for want of Fuel. ALL CO.O

Mifcel-

## Miscellany RULES of HEALTH and LONG LIFE.

I. CHRONICAL Difeafes last long, wear out the Constitution leisurely, and are accompanied with a flow Pulse; whereas *acute* ones foon *terminate* either in Death or Recovery, and are joined with a *quick* Pulse.

2. THE Scurvy is the Root of most chronical Discases of the British Nation; and is a necessary Consequence of their Way of *living* almost wholly on animal Food, and drinking so much strong Liquors.

3. SOFT thin, *Small*, *short*, *fair Hair*; *Slender* Muscles and Bones; *Jost Flesh*; a *white*, *fair*, *blanched*, or *ashen-coloured* Complexion; a *fair*, *corpulent*, *phlegmatic*, *cold* Constitution; *Chillines*, *especially* in the *Feet*; a Readines to *catch Cold*; and being subject to immoderate *Evacuations* of any Kind; are *certain Signs* of loose, flabby, or *relaxed Nerves*.

4. WOMEN of weak Nerves are very fubject to Miscarriages. Their Danger is Q 2 increased

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increased by high Living, and indiferent Bleeding. The only Remedy for them, is drinking Bristol Water, and red Wine, with a low and light Diet, going abroad to get Air, and using astringent Plaisters, and other proper Medicines, to corroborate their Bowels.

5. THE Weak and Sickly, as their concoctive Powers fail in Winter, and recover in Summer, should carefully proportion the Quantity and Quality of their Food, to the Strength of them, in the feveral Scasons.

6. THE fewer Cloaths one uses, the hardier he will be. Flannel, and great Loads of Cloaths, by Day and Night, relax the Fibres, and promote only Sweating, instead of the natural and beneficial Perspiration.

7. THE Weak, Sedentary, and Studious, fhould frequently *shave* their Head and Face, wash and *scrape* their Feet, and *pare* the Nails of their Toes.

8. PEOPLE that read and write much, ought to do them *standing*, or in as erect a Posture as they can. And those who can go about any Part of their *Studies* walking, should do it. 9.

9. THE Fat, Unwieldy, and Overgrown, ought to avoid all manner of Drink, ftrong and fmall, and even Water itfelf, as much as possible. And if their Food be Vegetables, and young Animals, they will have little Occasion for any Liquor.

10. THE Aged fhould (1.) carefully guard against all the Injuries of the Weather; and (2.) lessen the Quantity, and lower the Quality of their Food gradually, as they grow older, even before a manifest Decay of Appetite force them to it.

11. As chronical Difeases are not brought on all at once, so they cannot be quickly removed. A gradual Corruption must be gradually remedied. 'Tis contrary to the Nature of chronical Difeases, to be quickly cured.

12. IN all acute and vehement Pain, Opium is the fovereign Relief, particularly in the Colic, Stone, Gout, Rheumatifm, and hard Labour of Women. It operates by relaxing and unbending the Fibres, over-ftretched and crifped up by Pain.

13. THE

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13. THE great Secret of Health and Long Life lies in keeping the Blood (and, confequently, the other Juices of the Body) in a due Degree of Fluidity.



## CONCLUSION.

O conclude; without taking the Benefit of Revelation, which, in a Scufe relating even to our mortal Bodies, has brought Life and Immortality to Light; if but the Precepts of the Pagan Philosophers were observed;

--- Servare Modum, Finemque tueri, Natur amque sequi ; -----

If Men would but observe the golden Mean in all their Passions, Appetites, and Desires; if in all their Thoughts, Words, and Actions, they would but mind, I will not fay, the End of their Being and Existence here, but the End to which their Thoughts, Words, and Actions, naturally tended

tended in their last Resort; and, lastly, if, in the Gratifications of their Appetites, Paffions, and Defires, they followed the uncorrupted Dictates of Nature, and neither fpurred her on beyond her Craving, nor too violently reftrained her in her innocent Bias; they would enjoy a greater Measure of Health than they do; have their Sensations more delicate, and their Pleasures more exquisite; live with less Pain, and die with less Horror. For had it not been for the Lewdness, Luxury, and intemperate Gratifications of the Paffions and Appetites, which first ruined and spoiled the Constitution of the Fathers, whereby they could communicate only a diseased, crazy, and untuneable Carcase to their Sons, fo that, with the World's Decay, vicious Souls, and putrefied Bodies, have, in this our Age, arrived to their highest and most exalted Degrees ; I fay, had it not been for these Evils, there never had happen'd fo much Sickness, Pain, and Mi-Sery, fo unhappy Lives, and fuch wretched Ends, as we now behold among Men. But even in this our lapsed Estate and Condition, had the Dictates of Nature and Reason, not to fay, Religion, been followed, we might have passed our Days in Indolence (at least, from chronical Distempers), I

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pers), if not innocent Pleasures; arrived at a good old Age, with our Senses free, and our rational Faculties clear; and at last departed in Peace, as a Lamp goes out for want of Oil. And let the Gentlemen of Wit and Fire, of Banter and Sneer, hug themselves ever so much in their boasted Tranquillity and Security; gratify their Passions, Appetites, and Humours, to the full; and despise Futurity and Whining; I dare promise, when the Farce is ended, and the last Minutes are drawing on, they would prefer a Life thus led, and an End so calm, to all the Pleasures of Lewdness and Senfuality, and the Bounces of a false and ignorant Security.

FINIS.





