John the Golden
(Kept the
Mustard Gas)

By George Cheyne, M.D. F.R.S.

The Ninth Edition.

"Αὐτοκίνητας Ῥυθέντας, ἀκορίν Τροφῆς, εἰσυπνὸν Πόνων.

Ηιππος.

At Imbecillis (quo in Numero magna Pars Urbano-rum, omnesque pene Cupidi Literarum sunt) Ob-servatio 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 over-against the Royal Exchange in Cornhill; and J. Leake, Bookseller at Bath. M.DCC.XLV.
To the Right Honourable

Sir Joseph Jekyll,
Master of the Rolls:

This Treatise
is Inscribed,
As a Testimony of Respect
and Gratitude,

By

His most obliged faithful
humble Servant,

George Cheyne.
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.

A 3    THE
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 fancied, the handsomest 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 such 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
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 Press. I could not resist 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 philosophizing 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 slow Fevers, I still think solid and just, and more particular and limited than those of any other Theory yet published.

My next Sally was in a Book of abstr’d Geometry and Algebra, intituled,
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titled, 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 Mensuration of Ratio's, and Transformation of Curves, into those of other Kinds, were not advanced to such Heights as they now are. But it is a long time since I was forced to forego these 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 quicken and sharpen the Invention, strengthen 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, Positive-ness, 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 sober and teachable Temper: For in others they are very apt to beget a secret and refined Pride, an over-weening and over-bearing 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-
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 my own Weakness, I have long since 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 Levity and Resentment, I most sincerely 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. Pitcairn's Dissertations, against the late learned and ingenious Dr. Oliphant. I heartily condemn and detest all personal Reflections, all malicious and unmannerly Terms, and all false and unjust
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, consists 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 so great an Ornament to his 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 insensibly instilled into them. And accordingly it has been,
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 imperfect in its kind as I possibly can.

The Second Part of the Philosophical Principles, to wit, that of Revealed Religion, was added afterward, to show, that all our Knowledge 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 Knowledge) we should be necessarily led to conclude, the Attributes or Qualities of the supreme and absolute Infinite were in-
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 precisely these Differences, we ought implicitly to believe, without reasoning, what is revealed to us concerning the Nature of the infinite Being; or bring our Reason to submit to the Mysteries of Faith. How I have succeeded, is not for me to determine. As the End was honest, 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; else I should most certainly do it.

The Essay 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 enlarged 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
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 his Expectation, as his real Worth, and my sincere Esteem, required. I thought myself, therefore, the more obliged, as soon as I had Leisure, to exert myself to the utmost in Obedience to his 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 Taste 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
Love to his Fellow-citizens, (which is one shining Part of his 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 Person receive Benefit by it, they owe it entirely 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, so far, as to be able and willing to abstain from every thing hurtful, 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 how 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 Ease and Quiet. It is for these, and these only, the following Treatise is designed. The Robust, the Luxurious, the Pot-companions, the Loose, and the Abandoned, have here no Business.
ness; their Time is not yet come. But the Sickly and the Aged, the Studious and the Sedentary, Persons of weak Nerves, and the Gentlemen of the learned Professions, I hope, by the divine Blessing on the following Treatise, 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 suffered less, 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.
I know no useful Means of Health and Long Life I have omitted, nor any pernicious Custom I have not noted; and have given the plainest 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 Subtilty 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
be able to search out the Works of the Almighty to Perfection, so as to penetrate the internal Nature of Things.

I have consulted nothing but my own Experience and Observation on my own crazy Carcase; and the Infirmities of others I have treated, in the following Rules, their Reasons and Philosophy (so that if anything 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 systematic Writers in Physic, and many particular Authors, have treated the same Subject: But their Rules, besides that they are often inconsistent with Reason, or contrary to Experience, are so general, and expressed in so unlimited and undefined Terms, as leave little or no
Certainty in them; when applied to particular Cases, 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 Per/spicuity and natural Way of convincing the ingenious, sickly, and tender Sufferers, so necessary to make them cheerfully 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.

I know not what may be the Fate and Success of this Performance; nor am I solicitous about it, being conscious the Design was honest, the Subject weighty, and the Execution
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cution the best my Time, my Abili-

ties, and my Health, would permit,

which cannot bear the Labour of

much Filing and Finishing. Be-

ing careful not to incroach on the

Province of the Physician, I have

concealed nothing my Knowledge could

suggest, to direct the Sufferer, in

the best manner I could, to pre-

serve his Health, and lengthen out

his Life. And I have held out no

false or delusive Lights to lead

him astray, or torment him un-
necessarily.

If it were possible any Set of

Men could be offended at my Per-

formance, it might be my Brethren

of the Profession, for endeavouring

to lessen the Materia Morbifica. But

as this would be the most malic-

ious, unjust, and unworthy Reflec-
tion that could be thrown on Scho-
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lars and Gentlemen of a liberal Education, so I never entertained the most remote Vanity to think any Endeavour of mine would make so 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 say as an Apology, is, that of whatsoever Indifference my Concerns as an Author may be to him, yet they were not so to me; this being the only Place and Time I may have to adjust a 4 them
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them in, and it being the Height of my Ambition,

Nil consciire mihi, nulla pallescere culpâ.
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Tentamen de Sanitate & Longævitate,
doctum variumque Opus miratus, hæc
effudit ** Virtutum illius Viri Cultor
impensissimus.

H
U C ades o ! sævum Membris arcere Venenum
Qui cupis, & Morbi Semina tetra gravis.
Sive tremens pavidusque vides insolare minacem
Scorbutum (ut video hic Liber, ecce ! docet);
Sive parant aus Hypochondria turgida Nubes,
Quæ Menti offusæ tristia Spectra darent;
Seu Monïtri quodcunque imis Penetratus hæret,
Principium Morbi, mox genera Lues:
Ecce Opifer pæfens, C H E Y N A E U S, lenit acerbum
In Venis Succum, nec tibi Membra dolent;
Aut pellit trisbris Simulacra fugacia Spectri,
Atque Animus prohibet Gaudia absque tuo;
Maturâque Operâ prævertens tristia Fata
Ægrotare vetat, nec doluisse finit.

Perlege (at attentus) culti Documenta Libelli,
Si te vel sanum vel cupis esse probum:
(Ætate eteagram sociata Salus fideliter hæret
Virtuti, Vitio nec Comes esse volet.)
Disce Voluptates prudens vitare nocentes;
Hinc disce & veris innocuisque frui.
Ut tibi sit Somnus Lenimen dulce Laborum;
Quæque onerant Mensas dulcia Fercla sient;
Ut vigean Artus, nec faecia Membra laborent;
Hic Gulae effrænis Crimina mille lege.
Chirurgi Ferrum te, & tetrica Pharmaca terrent?
Hinc disce ambobus posse carere Malis.

BOOKS

A New Theory of acute and flow continued Fevers; wherein, besides the Appearances of such, and the Manner of their Cure, occasionally, the Structure of the Glands, and the Manner and Laws of Secretion, the Operation of Purgative, Vomitive, and Mercurial Medicines, are mechanically explain'd. To which is prefix'd, An Essay concerning the Improvements of the Theory of Medicine. The Fifth Edition, with many Additions.

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AN ESSAY OF Health and Long Life.

SECT. I.

It is a common Saying, That every Man past 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 present, there is not anything that the Generality of the better Sort of Mankind so lavishly and so unconcernedly throw away, as Health, except eternal Felicity. Most Men know when they are
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 else is required than to bear, and forbear. But towards the latter, the Means are perplexed and uncertain; and, for the Knowledge of them, the far greatest Part of Mankind must apply to others, of whose Skill and Honesty they are, in a great measure, ignorant, and the Benefit of whose Art they can but conditionally and precariously obtain. A crazy Constitution, original weak Nerves, dear-bought 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 preserving Health, and prolonging Life, in those who are tender and sickly, 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 Purpose, and setting them in the clearest and strongest Light I could, for the Benefit of those who may
may want them, and yet have not had such favourable Opportunities to learn them.

§. II. And that I might write with some Order and Connexion, I have chosen to make some Observations and Reflections on the Non-naturals (as they are called, possibly because that in their preternatural State they are eminently injurious to human Constitutions; or, more probably, because tho' they be necessary to the Subsistence of Man, yet, in respect of him, they may be considered 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 Exercise and Rest. 5. Our Evacuations, and their Obstructions. 6. The Passions of our Minds. And, lastly, To add some Observations that come not so naturally under any of these Heads. I shall not consider here, how philosophically these Distinctions are made; they seem to me the best general Heads for bringing in those Observations and Reflections I am to make in the following Pages.
§. III. The Reflection is not more
common than just, That he who lives
physically must live miserably. The Truth
is, too great Nicety and Exactness about
every minute Circumstance that may im-
pair our Health, is such 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 scrupulous regard to Health, is un-
worthy of a Man, much more of a Chri-
stian. But then, on the other hand, to
cut off our Days by Intemperance, Indis-
cretion, and guilty Passions; to live mi-
serably, for the sake of gratifying a sweet
Tooth, or a brutal Itch; to die Martyrs
to our Luxury and Wantonness; is equally
beneath the Dignity of human Nature,
and contrary to the Homage we owe to
the Author of our Being. Without some
Degree of Health, we can neither be
agreeable to ourselves, nor useful to our
Friends; we can neither relish the Bless-
ings of Divine Providence to us in
Life, nor acquit ourselves of our Dut-
ties to our Maker, or our Neighbour. He
that wantonly transgresseth the self-evident
Rules
Rules of Health, is guilty of a Degree of Self-Murder; and an habitual Perseverance therein is direct Suicide *, and consequently the greatest Crime he can commit against the Author of his Being; as it is flighting and despising the noblest Gift he could bestow upon him, viz. the Means of making himself infinitely happy; and also, as it is a treacherous forsaking the Post, wherein his Wisdom has placed him, and thereby rendering himself incapable of answering the Designs of his Providence over him. The infinitely wise Author of Nature has so contrived Things, that the most remarkable Rules of preserving Life and Health are moral Duties commanded us; so true it is, that Godliness has the Promises of this Life, as well as that to come.

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

* Self Murder.
An Essay of Health

CHAP. I.

Of Air.

§. I. IR being one of the most necessary Things towards the Subsistence and Health of all Animals, 'tis a Wonder 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 should be so little considered.

§. 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.
and Long Life.

cury and Antimony) 'tis plain, Air, so and so qualified, can relax and obstruct the whole nervous System. From the Cholics, Fluxes, Coughs, and Consumptions, produced by damp, moist, 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; so that any ill Quality in the Air so continually introduced, must, in time, produce fatal Effects on the animal Economy: And therefore it will be of the utmost Consequence to every one, to take care what Kind of Air it is they sleep 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 swamp, marshy, or mossy Foundation; but either in a champagne Country, or on the Side of a small Eminence, shelter'd from the North and East.
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 securely, from the Nature of the Waters that spring out of it, which ought always to be sweet, clear, light, soft, and tasteless. All high Mountains are damp, as Dr. Halley observed at St. Helena, a mountainous Place, where Damps fell so 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 send their Furniture, in Winter, to the Valley, lest it should rot. And 'tis common to have it rain or snow on Mountains, when the Valleys below are clear, serene, and dry. All great Hills are Nests of Minerals, and Covers (made of the prominent Earth) for Reservoirs of Rain-water. The Clouds are but great Fleeces of rarefied Water falling in the Air, sometimes not many Yards above the champagne Country; and these high Hills intercepting them, they are compressed 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 expos'd to high, and almost perpetual Winds. Where any great Concours 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 nothy Blackness is some Degree of Putrefaction, as * Sir Isaac Newton observes.

§. 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 Treatise about Light and Colours.

Summer,
Summer, blow with all the fiery Particles of the perpetual Day they pass 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 Bed-chambers into Rooms that have Western or Southern Lights, or to shut close up the Eastern and Northern Lights, or to have them but seldom opened; and, in wet Seasons, to take the contrary Course. And if any such 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 small Mountain-wine Whey, as an Antidote against the nitrous
nitrous Effluvia suck'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 sulphurous Smoke, from the Multitude of Coal-Fires, the Absence of that material Divinity the Sun, and the Consequence thereof, the falling of the Dews and Vapours of the Night. In such a Season, weak and tender People, and those that are subject to nervous or pulmoniac Distempers, ought either to go into the Country, or to be at home soon after Sun-set, and to dispel the Damps with clear, warm Fires, and cheerful Conversation, go early to Bed, and rise proportionally sooner in the Morning; for, as the Sun's Removal suffers the Vapours to fall and condense in the Evening, so his Approach dispels and raises 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,
healthy, found, and sweet, as possibly they can; and, for their own sakes, to have them removed till they are made so, if they are otherwise. Nor shall I add any pressing Instances, to avoid wet Rooms, damp Beds, and foul Linen, or to remove Ordures and Nuisances; 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 lesser Compass, and smaller 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 so. Yet the Parts of Air would seem to be grosser 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 insinuates itself into the patent Cavities of all
all animal Bodies; and the Infant, which never breathed before, as soon as it is exposed to this Element, has the little Bladders, whereof the Lungs consist, 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 compressed 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 press so far upon, and grind the großer Particles of the Blood into more sizeable ones, that they may become small enough to circulate through the other capillary Vessels of the Body. This elastic Air, pressing equally every Way round, by its Weight and Spring, shuts close the Scales of the Scarf-skin of healthy and strong Persons; so 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 sickly, studious, and sedentary People, and those of weak Nerves, where the
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 sily; 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 Vessels, the cutaneous Glands, and those of the Lungs, and alimentary Passages, when such Bodies are long exposed to such an Air; and thus beget all these Disorders 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 Disorders should happen; because the Force of the perspiratory Steams outward, is greater than the Force whereby these noxious Mixtures enter; unless the Body be indifferently too long exposed, or the Action of the nitrous and watry Mixtures be extremely violent. Hence it comes to pass, that those who are very strong and healthy, and those who have drank strong Liquors so plentifully, as to have thereby a brisk Circulation, and full Perspiration, seldom or
never catch Cold. And this is the Reason why rich Foods, and generous Wines, moderately used, become so excellent an Antidote in infectious and epidemic Distempers, not only as they banish Fear and Terror, but as they make so full and free a Stream of Perspiration, and maintain so active and brisk an Atmosphere, as suffers no noxious Steam or Mixtures in the Air to come within it, but drives and beats off the Enemy to a Distance. But Persons of viscous, heavy Fluids, of poor and syrupy Juices, of little or no Perspiration, such as generally all studious, sedentary and sickly Persons are, but especially those that are subject to nervous Disorders, must necessarily suffer under these poisonous Mixtures in the Air, if they do not cautiously and carefully fence against them, or take not a present 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 such Air as is about us. And when the cooective Powers are weak, as in such Persons, and the Quantity of the Food is too great, or its Quality too strong for them, the Chyle is too gross, and the perspiratory Matter
An Essay of Health

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 elastic Force, pierces the Sides of the Vessels, and gets into all the Cavities of the Body, and between the Muscles and their Membranes, and there, in Time, brings forth hypochondriac, hysterical, nervous, and vapourish Disorders, and all that black Train of Evils such Constitutions suffer under.

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

General
General Rules for Health and Long Life, drawn from the Head of Air.

1. The healthiest Situation for a Seat, is in a champagne Country, or on the side of a small Eminence, on a gravelly Soil, with a Southern or Western Explication, shelter'd from the North and East Winds, distant from any great Course of Waters, or any great Mines or Beds of Minerals, where the Water is sweet, clear, light, soft, and tasteless.

2. Tender People, on the setting 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 some thin and warm Liquor going to Bed.

4. When the dark, dull, foggy Weather lasts at London in Winter, tender Peo-
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 preserve their Health, ought to observe all the Cleanness and Sweetness in their Houses, Cloaths, and Furniture, suitable to their Condition.
CHAP. II.

Of MEAT and DRINK.

§1. To have our Food, that is, our Meat and Drink, as to Quantity and Quality, duly regulated, and precisely adjusted to our concotive Powers, would be of the utmost Consequence to Health and Long Life. Our Bodies require only a determinate Quantity thereof, to supply the Expenses of living; and a just Proportion of that to these, would very probably preserve us from acute, most certainly from chronical Distempers, and enable us to live without much Sickness and Pain, so long as our Constitutions were originally made to last. The Sources of chronical Distempers, are, first, Viscidity in the Juices, or the Over-largeness of their constituent Particles, which, not being sufficiently broken by the concotive Powers, stop or retard the Circulation; or, secondly, too great abundance of sharp and acrimonious Salts,
Salts, whereby the Juices themselves are rendered so corrosive, as to burst 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 Substances. The Animals themselves, from epidemic Causes, bad Food, Age, or other Infirmities, have their Diseases, 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 so harder of Digestion. 'Tis true, the great Distinction 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 also upon the special Taste, Complexion, Temperament, and Habits of the Person that feeds on them. But by the Help of these three
three Principles, viz. First, That the Strength or Weakness of Cohesion of the Particles of fluid Bodies depends upon their Bigness or Smallness; that is, the biggest Particles cohere more firmly than the smaller, because more Parts come into Contact in large Bodies than small, and so their Union is greater; secondly, That the greater the Force [Momentum] is, with which two Bodies meet, the stronger is their Cohesion, 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 whatsoever: 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 say, from these three Principles, we may, in general, compare the Easiness or Difficulty of digesting (that is, breaking into small Parts) the several sorts of Vegetables and...
and Animals, one with another; and so discover their Fitness or Unfitness for becoming Food for tender and valetudinarian Persons.

I. All other Things being supposed equal, those Vegetables and Animals that come to Maturity the soonest, are lightest of Digestion. Thus the Spring Vegetables, as Asparagus, Strawberries, and some Sorts of Sallading, are more easily digested than Pears, Apples, Peaches, and Nectarines; because they have less of the solar Fire in them; their Parts are united by a weaker Heat, that is, with less Velocity, and abound less in, nay, scarce have any strong and fixed Salts. Among the Animals, the common Poultry, Hares, Sheep, Kids, Rabbits, &c. which in the same, or a few Years, come to their Maturity, (that is, to propagate their Species) are much more tender and readily digested, than Cows, Horses, or Asses, (were these last in Use for Food, as they have been in Famine) &c. for the Reason already given, because their Parts cohere less firmly. And it is observable, of the Vegetables, which are longest a ripening, that is, whose Juices have most of the solar Rays
Rays in them, that their fermented juices yield the strongest 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 digest is the Food made thereof: Thus a large Onion, Apple, or Pear, and large Beef and Mutton, are harder to digest than the lesser ones of the same kind; not only, as their Vessels being stronger, 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 same Kind: Thus, other Things being equal, a greater Fire is proportionably more intensely hot, than a lesser one; and the Wine contained in a larger Vessel becomes stronger than that contained in a lesser; and consequently, the Juices of larger Animals and Vegetables are more rank than the Juices of smaller ones of the same Kind.
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 soonest come to Maturity, than those that live on such as are longer a ripening: Thus Milk and Eggs are lighter of Digestion than the Flesh of Beasts or Birds; Pullets and Turkies, than Ducks and Geese; and Partridge and Pheasant are lighter than Woodcock or Snipe; because these last, being long-billed, suck only animal Juices; and, for the Reasons already given, Grass Beef and Mutton are lighter than Stall-fed Oxen and Sheep.

4. All Things else being alike, Fish and Sea Animals are harder to digest than Land Animals; because, universally, their Food is other Animals; and the salt Element in which they live, compacts their Parts more firmly; Salts having a stronger Power of Cohesion than other Bodies. And, for the same Reason, Salt-water Fish is harder to digest than Fresh-water; Thus the Sea Tortoise is harder to digest
digested than the Land Tortoise; 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 coagulative Powers; and their Parts attract one another, and unite more strongly 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 Fat and Oil itself is shut 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 Pease; fat Flesh-meat, than the Lean of the same: 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,

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* Vide Sir Isaac Newton's first English Edition of Light and Colours.
or inclining to the lighter Colours, are lighter to digest, 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 lesser 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, Geese, 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 harder 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;
and Long Life. 27

Maturity; and where Salts abound, the Parts are more difficulty separated, and harder to be digested. Strong and aromatic Plants imbibe and retain most of the solar Rays, and become solid Spirits, or fixed Flames; and they that deal much in them, swallow so 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 concotive Powers have over the Food, or the stronger the concotive Powers are, in regard of the Things to be concotted, the finer the Chyle will be, the Circulation the more free, and the Spirits more lightsome; 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 easily fix upon thes particular vegetable or animal Foods, that are fittest for them. And, if any Error should be committed, 'tis best to err on the safest Side, and rather chuse those Things that are under our concotive Powers, than those that are above them. And in the Choice of Animals for our Food, we must not pass
pass over the Manner of fattening and fitting them up for the Table. About London we can scarce have any but cram'd Poultry, or Stall-fed Butchery-meat. It were sufficient to disgust the stoutest Stomach, to see the foul, gross, and nafty Manner, in which, and the fetid, putrid, and unwholsome Materials, with which, they are fed. Perpetual Foulness and Cramming, gross Food and Nastines, we know, will putrefy the Juices, and mortify the muscular Substance of human Creatures; and, sure, they can do no less in brute Animals, and thus make even our Food Poison. The same may be said of Hot-beds, and forcing Plants and Vegetables. The only way of having sound 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 Cleanliness, and a Shelter from the Injuries of the Weather, when they have a mind to retire to it. I add nothing about Cookery: Plain Roasting and Boiling is as high as valetudinary, tender, studious, and contemplative Persons, or those who would preserve 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 sufficient for Health and Long Life. Abstinence and proper Evacuations, due Labour and Exercise, will always recover a decayed Appetite, so long as there is any Strength and Fund in Nature to go upon. And it is scarce allowable to provoke an Appetite with medicinal Helps, but where the digestive Faculties have been spoiled and ruined by acute or tedious chronical Distempers: And, as soon as it is recover'd to any tolerable Degree, Nature is to be left to its own Work, without any Spurs from Cookery or Physic.

§. IV. The next Consideration is the Quantity of Food that is necessary to support 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 Exercise he uses. In these Northern Countries, the Coldness of the Air, the Strength and large Stature of People,
An Essay of Health

People, demand larger Supplies than in the Eastern and warmer Countries. Young, growing Persons, and those of great Strength, and large Stature, require more than the Aged, Weak, and Slender. But Persons 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 some Assistance to valetudinary and tender Persons, to adjust the due Quantity necessary for them.

§. V. It is surprising, to what a great Age the Eastern Christians, who retir'd from the Persecutions, into the Deserts of Egypt and Arabia, lived healthful on a very little Food. We are inform'd by Cassian, 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 Anthony liv'd to 105 Years on mere Bread and Water, adding only a few Herbs at last: James the Hermit, to 104: Arsenius, the Tutor of the Emperor Arcadius, to 120; 65 in the World, and 55 in the
and Long Life.

the Desert: 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, so that his Life was despaired 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 said, 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 necessarily require a greater Quantity of Food: Yet 'tis wonderful in what Sprightliness, Strength, Activity, and Freedom of Spirits, a low Diet, even here, will preserve those that have habituated themselves to it. Buchanan informs us of one Laurence, who preserved himself to 140, by the mere Force of Temperance and Labour. Spotswood mentions one Kentigern, (afterwards 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 tasted Wine,
Wine, nor strong Drink; and slept 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, shews the great Benefit of a low Diet, living altogether on vegetable Food, and pure Element. The History of the Milk * Doctor of Croydon, who by living on Milk only, cured himself, of an otherwise incurable Distemper, viz. the Epilepsy, and lived in perfect Health for sixteen Years after, 'till an Accident cut him off, I have already narrated in my Treatise of the Gout. Henry Jenkins, a Fisherman, liv'd 169 Years; his Diet was coarse and poor, as his Historian informs us, that is, plain and cooling, and the Air where he lived sharp and clear, viz. Allerton upon Swale, in Yorkshire. Parr died sixteen Years younger, viz. at the Age of 152 Years, 9 Months; his Diet was old Cheese, Milk, coarse 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 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 disordered; upon which there could not but soon ensue a Dissolution. Dr. Lister* mentions eight Persons in the North of England, the youngest of which was above 100 Years, and the eldest 140: He says, 'tis to be observed, that the Food of all this mountainous Country is exceedingly coarse. 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 gravely and chalky Soil, if, to due Exercise, 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. Trans. by Lowth.
† See the Essay of the Gout and Bath Waters.
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 lessen this Quantity, if they would preserve their Health, and the Freedom of their Spirits, long. Studious and sedentary Men must of Necessity eat and drink a great deal less, than those very same Men might do, were they engaged in an active Life: For as they want that Exercise that is necessary towards Concoction and Perspiration, and that their Nerves are more worn out by intellectual Studies, than even bodily Labour would waste them; if, in any wise, 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 Cause why we see so many hypochondriacal, melancholy, and vapourish Gentlemen among those of the Long Robe; the only Remedy of which is Labour and Abstinence.
§. VIII. Most of all the chronical Diseases, the Infirmities of old Age, and the short 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, Blistering, Issues, Purging, Vomiting, and Sweating, are manifest Evacuations, or Drains to draw out what has been superfluous taken down; but even Abstinence, Exercise, Alteratives, Cordials, Bitters, and Alexipharmacs, are but several Means to dispose the gross Humours to be more readily evacuated by insensible Perspiration; that new and well-concocted Chyle, and sweet comminuted Juices, may take their Place to restore the Habit: And therefore it were much more easy, as well as more safe and effectual, to prevent, than incur the Necessity of, such Evacuations. And any one may lose a Pound of Blood, take a Purge, or a Sweat, by dropping the great Meal, or abstaining from animal Food, and strong Liquors, for four or five Days, (in chronical Cases) as effectually, as by opening a Vein, swallowing a Dose of Pills, or taking a sudorific Bolus.
§. IX. I ADVISE therefore all Gentlemen of a sedentary Life, and of learned Professions, to use as much Abstinence as possibly they can, consistent with the Preservation of their Strength, and Freedom of Spirits: Which ought to be done as soon as they find any Heaviness, Inquietudes, restless Nights, or Aversion to Application; either by lessening one half of their usual Quantity of animal Food, and strong Liquors, till such time as they regain their wonted Freedom and Indolence; or by living a due Time wholly upon vegetable Diet, such as Sago, Rice, Pudding, and the like, and drinking only a little Wine and Water. And if they would preserve their Health and Constitution, 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 keeping at Home; but may at once strengthen the Bowels, and discharge superfluous Humours. Of this Kind, are a Dose (6 or 7) of the Scotch Pills; half a Dram of the Pilula Stomachicae cum Gummi, with three or four Grains
Grains of Diagryd. mix'd; half a Dram of the Pilule 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 best 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. Infuse 48 Hours by a warm Fire-side, in a Quart of true Arrack. Strain it off, and put it in a well-cork'd Bottle for Use.

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

* Nothing contributes more to Health and Long Life, than frequent Family Purges.
tatam, quam crebrae & domesticae purga-
tiones. And the Gentlemen of the Long
Robe, those of learned Professions, and
contemplative Studies, must of Necessity,
at last, take Sir Charles Scarborough’s Ad-
vice, as ’tis said, to the Duchess of Port-
smouth: You must eat less, or use more Ex-
ercise, or take Physic, or be sick.

§. X. Those who have written about
Health, have given many Rules, whereby
to know when any Person has exceeded
at a Meal: I think there needs but this
short one; which is, If any Man has
eat or drank so much, as renders him
unfit for the Duties and Studies of his
Profession, (after an Hour’s sitting quiet,
to carry on the Digestion) he has over-
done. I mean, only of those of learned
Professions, and studious Lives; for those
of mechanical Employments must take
the Body, the other Part of the Com-
ound, into Consideration. If tender
People, and those of learned Professions,
would go by this Rule, there would be
little Ufe for Physic or Physicians in
chronical Cases. Or if they would but
eat 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 Small-beer, their Appetites would be a sufficient Rule to determine the Quantity of their Meat and Drink. But Variety of Dishes, the luxurious Artfulness of Cookery, and swallowing rich Wine after every Bit of Meat, so lengthen out the Appetite, the Fondness of Mothers, and the Cramming of Nurses, have so stretch'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 themselves able to carry off Loads of high-season'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 simple, 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 Sensations, and free from unnecessary Trouble and Pain. To answer which, I know nothing but Eating and Drinking by our Eye;
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 Flesh-meat, and the Number of Glasses of strong Liquors, under which we are best; 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; somewhat less of Beef; may be sufficient for Flesh-meat, at the great Meal. For we are so wisely 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-flesh, I think they ought to be forbidden vate-tudinary and studious People, as they were the Jews: They feed the foulest of any Creature, and their Juices are the rankest; their Substance the most surfeiting, and they are the most subject to cutaneous Diseases and Putrefaction, of any Creature; insomuch that in the Time of a Plague, or any epidemical Distemper, they are universally destroyed by
by all wise Nations, as the Southern People 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 forth their young ones. This makes their Parts more cloely 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 observable, that those who live much on Fish, are infected with the Scurvy, cutaneous Eruptions, and the other Diseases of a foul Blood: And every-body finds himself more thirsty and heavy than usual, after a full Meal of Fish, let them be ever so 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 live much upon them, that Brandy is Latin for Fish. Besides, that after a full Meal of Fish, even at Noon, one never sleeps so sound the ensuing Night; as is certain from constant Observation. These few Hints may serve the valetudinary Person, in a gross manner, to judge by
the **Eye** the **Quantity of solid Flesh-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 strong, I account them equal in **Nourishment**, and harder to digest, than the same **Weight of solid Flesh-meat**; and three or four common Spoonfuls, at most, make an **Ounce in Weight in Liquids**; and about double the **Number of Bits commonly swallowed at once**, make the same **Weight in solid Flesh-meat**; for **Exactness is not here requisite**.

§. 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 **Pleasure and Variety**, than common **Use.** Without all Peradventure, **Water** was the primitive, original **Beverage**, as it is the only simple **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 **mix'd**
mix'd and artificial Liquors had never been invented. It has been an agreeable Appearance to me, to observe with what Fresness and Vigour, those who, though eating freely of Flesh-meat, yet drank nothing but this Element, have lived in Health, Indolence, and Cheerfulness, to a great Age. Water alone is sufficient and effectual for all the Purposes of human Wants in Drink. Strong Liquors were never designed for common Use: 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 raise the Low-spirited. And it were as just and reasonable, to see Men (and, if they go on, it is not impossible I may hear of it, since Laudanum is already taken into Feaſts and Entertainments) fit down to a Difh of Venice Treacle, or Sir Walter Raleigh's Confection, with a Bottle of Hysteric Cordial, as to a Difh of Crayfifh Soup, an Ox-cheek, or Venifon 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 see, by daily Experience, that (as natural Causes will always produce their proper Effects) their Blood becomes inflamed into Gout, Stone, and Rheumatism, raging Fevers, Pleurisy, Small-pox, or Measles; their Passions are enraged into Quarrels, Murder, and Blasphemy; their Juices are dried up; and their Solids scorched and shrivelled. Those whose Appetite and Digestion is good and entire, never want strong Liquors to supply Spirits: Such Spirits are too volatile and fugitive for any solid or useful Purposes in Life. Two Ounces of Flesh-meat, well digested, beget a greater Stock of more durable and useful Spirits, than ten times as much strong Liquors, which nothing but Luxury and Concupiscence make necessary. 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 Discretion, without dealing in, or desiring, any great Quantity of strong Liquors! Their Passions have been calmer, their Sensations more exquisite, their Appetites less unruly,
and Long Life.

ruly, and their Health more uninterrupted, than any other natural Cause could have produced: And thrice happy they, who continue this Course to their last Minutes! Nothing is more ridiculous than the common Plea for continuing in drinking-on large Quantities of spirituous Liquors; viz. because they have been accustomed so to do, and they think it dangerous to leave it off, all of a sudden. It were as reasonable for him that is fallen into the Fire or Water, to lie there, because of the Danger of removing him suddenly; for neither Element will destroy him more certainly, before his Time, than wallowing in strong Liquors. If the Quantity of strong Liquors they have been accustomed to, may be supposed prejudicial to their Health, or to introduce noxious Humours into the Habit; the sooner a Stop be put to it, the better. No Man is afraid to forbear strong Liquors in an acute Distemper, what Quantity soever he might have drank in his Health: And yet any sudden 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 pass, in such critical Cases: For, the whole System of
of the *Fluids* being in a *Fermentation*, small Changes or Errors, then, would not only be more fatal, but more plain and obvious. And, if a Person be in Hazard by such a *sudden* Alteration, he cannot live long, by taking down so much *Poison*. But the Matter of *Fact* is false and groundless; for I have known and observed constant good Effects, from leaving off suddenly great Quantities of *Wine*, and *Flesh-meats* too, by those long accustomed to both; am ready to name he Persons; and never observed any ill Consequence from it in any Case whatsoever. Those whose Constitutions have been quite broken, and running into *Dissolution*, have lived longer, and been less pained in Sickness, by so 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 accustomed to drink *Wine*, or *strong Liquors*, a Pint in 24 Hours; and I am well satisfied, that *Quantity* is sufficient for *Health*, let their Custom have been what it will. Their *Spirits* may, indeed, *flag* and *sink* a little at first, for want of introducing *Quicklime* and *Fire*: But *Low-spiritedness*, in such a Case, I count no *Disease*; and bearing
and LONG LIFE. 47

bearing it for some time, is bountifully recompensed by the Health, Indolence, and Freedom of Spirits, they afterwards enjoy; not taking into Consideration, their being rescu'd from the Tyranny of so immoral and mischievous a Habit. It may be sufficient for those who are tender, studious, 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 sufficient after it.

§. XIII. A great Mistake committed in this Affair, is, that most People think the only Remedy for Gluttony is Drunkenness; 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 concitutive Powers, as strong Food itself. This is not only evident, with respect to People of weak Stomachs; but also from hence, that healthy
healthy People, who drink only Water, or weak Small-beer, shall be able to eat and digest almost double of what they could; did they drink strong Liquors at their Meals, as every one that pleases may experience. Water is the only universal Dissolvent 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 dissolve, 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, consist. And I have known Men of weak and tender Constitutions, who could neither eat nor digest, 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 present Cheerfulness; Yet, besides the future Damages of such a Quantity of Wine, to the Stomach and
and to the Fluids, by its Heat and Inflammation, the Food is hurried into the Habit, unconcocted; and lays a Foundation for a Fever, a Fit of the Colic, or some chronic Disease.

§. XIV. Another Mistake I shall observe, is the extreme Fondness Persons of the better Sort, here in England, have lately run into, for the strong and high Country Wines. I can think of no Reason for this, but the very honest one the Vulgar give for drinking Brandy; That they get sooner drunk on it. For surely the middling lighter Wines inflame the animal Juices less, go more easily off the Stomach, and afford more Room for long Conversation and Cheerfulness. Excess in them gives less Pain, and is sooner remedied. But there are Degrees in this Matter. Nemo repente fuit turpissimus *. They begin with the weaker Wines; these, by Use and Habit, will not do; they leave the Stomach sick and mawkish; they must fly to stronger Wine, and stronger still, and run the Climax †, through Brandy to Barbados Waters, and double-distilled Spirits, till at last they can find nothing

* Nobody becomes extremely bad all at once.
† Rise higher by degrees.
hot enough for them. People who have any Regard for their Health and Lives, ought to tremble at the first Cravings for such poisonous Liquors. Strong Waters should never be taken but by the Direction of a Physician, or in the Agonies of Death. For when Persons 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 short Time they have to live, and the little Use they can be of, either to Themselves, 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 four Verjuice, or unripe Wines; but I cannot help being well satisfied, both from Reason and Experience, that the light Wines, of a moderate Strength, due Age, and full Maturity, are much preferable for Cheerfulness and Conversation, much more wholesome for human Constitutions, and much more proper for Digestion, than the hot and strong Wines. The rich, strong, and heavy Wines ought never to be tasted without a sufficient Dilution of Water; at least, they should be used, like Brandy, or Spirits, for a Cor-
Cordial. * Ad summum tria pocula jube. Whatever 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 sorrowful Heart, and raising the drooping Spirits, by the cheerful Cup, and the social Repast. Perhaps I may like the harmless Frolick, the warm Re-ception of a Friend, and even the Dulce Furere† itself, more than I ought: Persons sober in the main will receive little Prejudice from such a Fillip, when the Occasions happen but seldom, and especially 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, since it has got not only among Mechanics and Tradesmen, but among Persons of the

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* i.e. At most, to take but three small Glasses of such.
† Horat. i.e. An agreeable Frolick or Extravagance.
briestest Genius, the finest Taste, and the most accomplished Parts; and (Oh, that I could give my Conscience the Lye, in mentioning them!) even among the first and least fallen Part of the Creation itself, and those of them too, of the most elegant Parts, and the strictest Virtue otherwise; and, which is still the most surprising of all, even those too, who are in all other Respects blameless; since, I say, the Case is so, it will not be amiss to fhew, to the Evidence of a Demonstration, 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 Rise, and become the weighty Causes of so fatal an Effect. A little Lownefs requires Drops, which pass readily down under the Notion of Physic; Drops beget Drams, and Drams beget more Drams, till they come to be without Weight, and without Measure; so that at last the miserable Creature suffers a true Martyrdom, between its natural Modesty, the great Necessity of concealing its Cravings, and the still greater one, of getting them satisfied somehow. Higher and more severe
severe Fits of Hysterics, Tremors, and Convulsions, begot by these, bring forth farther Necessity, upon Necessity, of Drops, Drams, and Gills, till, at last, a kind of Dropsy, nervous Convulsions, a nervous Atrophy, or a colliquative Diarrhoea, if not a Fever, or a Phrensy, set the poor Soul free. It has very often raised in me the most melancholy Reflections, to see even the Virtuous, and the Sensible, bound in such Chains and Fetters, as nothing less 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 says, the Drunkard shall not inherit the Kingdom of Heaven. Did this bewitching Poison actually cure or relive them from time to time, something might be said, to extenuate the Folly and Phrensy of such 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 Necessity 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 Misery, besides the making the

Malady
Malady more incurable. Low-spiritedness, in itself, is no Disease; besides that there are Remedies in Art that will always relieve it, so long as there is any Oil remaining in the Lamp; and 'tis in vain to try to raise 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 present 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 last Necessity: And I can honestly say, I never failed of relieving, so as to make Life tolerable, vapourish, hysterical, or hypochondriacal Persons, who would be governed in their Diet, by the Use of other proper Means, if there was a Fund in Life, and no incurable Disease, 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 deserves more to be stigmatized, and banished the Repasts of the *Tender, Valetudinary, and Studious*, than **Punch**. 'Tis a Composition of such Parts, as not one of them is salutary or kindly to such Constitutions, except the pure Element, in it. The principal **Ingredient** is **Rum, Arrack, Brandy, or Malt Spirits**, as they are called, all of them raised 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 possibly can, retains a **caustic, corrosive, and burning Quality** ever afterwards. This is evident, from the **fiery and burning Touch** and **Taste** 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 **Lime-water**, in drying up all **humid Sores**, when given inwardly by itself, or compounded **with**
with sudorific Woods and Roots, and from its Success in outward Applications for the same Purposes. And tho' Time may, in some measure, get the better of this, in its sensible and obvious Operations; yet, since Water is a grosser Body than Fire, or Flame, it never can penetrate it so far, as quite to extinguish its inmost Heat; especially if we consider, that Spirits are but an Accumulation of fine Salts, and light Oil, compacted together into the smallest Volume; the first whereof is so hard and solid, as naturally to retain their Heat the longest, into which Water cannot enter; the other, to wit, the Oil, is so 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 so strong, as to reduce them to liquid Flames at last, which will of themselves evaporate in visible Flames and Fumes. The other principal Part of the Composition is the Juice of Oranges and Lemons. And if we consider, that a Lemon or Orange could never be transported half Seas over to us, without rotting or spoiling, if gathered when wholly ripe, we should 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 shut 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 Juice 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 such Juices would be to the fine Fibres of weak Stomachs and Bowels, I leave every one to judge. The Truth is, all fermenting Juices, such 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 Collocation there, and so must blow up the whole Cavities of the human Body, with acrid Fumes and Vapours, the great and sore Enemy of such 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 universally afflicted with nervous and mortal Dry Belly-akes, Palsies, Cramps,
Cramps, and Convulsions; which cut them off in a few Days, entirely owing to this poisonous Mixture.

The Bath-water is the only Remedy in such Cases, whither they all hasten, 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 universally 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 safest. 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 so small, as not to do sufficient Harm to forbid their using them for the sake 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 ancient Physicians. And, indeed, whenever they
they prescribed 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 Deterrence (at least, for any great Use, or in any great Quantity; for some Poisons are so only by their Quantity) 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 see any Temptation for any one in their Senses to indulge in this Heathenish Liquor, but that it makes its Votaries the soonest, and all of a sudden the deepest, drunk; holds them longest in the Fit; and deprives them the most entirely of the Use of their Intellectual Faculties, and Bodily Organs, of any Liquor whatsoever. It is likely Opium, both in its Nature, and in the Manner of its Operation; and nearest Arsenic, in its deleterious and poisonous Qualities: And so I leave it to them,
§. 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 Barley-soup. I am well satisfied, a weak Stomach can as readily, and with less Pain, digest Pork, and Pease-soup, as Yorkshire 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 Persons of weak Nerves, and slow 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 are a kind of Liquors in Use among the better Sort, which some 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 consist in Custom, and all their Harm in Excess. As to Coffee, it is a mere Calx, or a kind of burnt Horsebean, but lighter on the Stomach, and of somewhat a better Flavour. The Turks use it, and Opium, instead of Brandy. But the Plea that some make for running into Excess in it, from this Mahometan Custom, is altogether weak and groundless; for those that do so there, suffer by it, as we do here: And those that debauch in it, turn stupid, feeble, and paralytic, by it, especially when they join Opium with it, as they frequently do, as those who wallow in these do here; and are as much despis'd and expos'd by serious Persons, as our Topers and Brandy-swillers are here. A Dish or two of Coffee, with a little Milk to soften it, in raw or damp Weather, or on a waterish 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 it would be for such to drink nothing but scalding Lime-water. There are two Kinds of Tea in Use, Green and Bohea. Mr. Cunningham, who lived several Years in China, a very learned and accurate Person *, informs us, that they are both gathered from the same Shrub, but at different Seasons 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, besides these Differences in drying, some Infusion of another Plant, or Earth, (perhaps such 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 strong, nor too hot, I take to be a very proper Diluent, when soften’d with a little Milk, to cleanse the alimentary Passages, and wash off the scorbatic and urinous Salts, for a Breakfast, to those who live full and free: as also it, or Tea made of a slic’d Orange or Lemon, is one of the best Promoters of Digestion

* Vide Phil. Collect.
after a full Meal, or when one is a-dry between Meals, and much more safe and effectual than Drams, or strong Cordials, which are commonly used for that Purpose. Some Persons of weak, tender Nerves, fall into Lowness 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 abstain from them, as from Drams and Drops. But I can never be of their Opinion, who ascribe the Frequency of Scurvy, Vapours, Low spiritedness, and nervous Distempers now, to what they were in the Days of our Forefathers, to the Custom of drinking more frequently and freely of these foreign Infusions. The Cause 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 assist Digestion in weak Stomachs, and tender Nerves; and by this alone I have seen several such Persons 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
by its Taste, 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 see 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 Blood-warm; 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 Persons, and those of weak Nerves. I have before observed, that Nuts pass through the alimentary Passages untouched; and though they may part with some of their more volatile Particles, yet I doubt if they can afford much
much Nourishment to Persons of weak Digestions. Some say, 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, such as sharp Wines and sharp Humours in the Stomach give. For fat and oily Things, such as all Nuts are, are hard to digest, and lie long in the Stomach, for Reasons I have already explain'd: It may lubricate and sheath against the Irritation of salt 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 so light and easy to the Stomach, most certainly, as the farinaceous or mealy Vegetables, such as Pease, Beans, Millet, Oats, Barley, Rye, Wheat, Sago, Rice, Potatoes, and the like; of some of which on Milk or Water, I should ever advise the Valetudinary, and those of weak Nerves, to make their two lesser or secondary 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 gros and phlegmatic Constitutions,
tutions, who abound in serous and watry Humours, who are subject to Coughs, Catarrhs, and asthmatic Indispositions, who labour under violent Tooth-achs, or are troubled with Rheums in their Eyes, who have cold and waterish 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 rinse 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 so absolutely necessary towards Concussion. Snuffing the Leaves, or the grofter Cut, in a Morning, will readily promote a Flux of Rheum by the Glands of the Nose, and will be of good Use, to clear the Head and the Eyes. But the ridiculous Custom, of perpetually sucking in sophisicated Powders, and other foreign Drugs sold 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 assist the Reader with some Observations and Reflections, to enable him towards determining the Quantity and Quality of his solid Food, necessary either to prevent or cure chronic Distempers. It may not be amiss here, to make some Reflections also on the fit Proportion of Drink proper for that Purpose: As the Food is, so 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 strong Liquors, fittest to preserve 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 chronic 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 serve to distend and swell up the Vessels, and wash off some of the finer and more nutritive Parts of the Chyle; and too little will not be sufficient to dilute the solid Food, or to make the Chyle thin.
thin and fluid enough, to circulate through the fine and small Vessels. 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 full-grown and adult animal Food, ought to eat it boiled, and well boiled too, if their Digestion be but weak. They who can live on young animal Food, (which is best for weak Stomachs) ought to eat it roasted; but must lessen the Quantity, in respect of the same 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 so readily slip from, or disappoint the Action of Grinding, which has some Share in Digestions, both primary and subsequent: But it will want more Dilution with a watry Mensstrum, to soften its more rigid and crisp Fibres. If therefore the whole Weight of the solid Food, in twenty-four Hours, be supposed a Pound and a Half, then three Pounds of Liquor, that
that is, one of strong Liquor, and two of some aqueous Fluid, will, in a Medium, be sufficient to dilute it abundantly. For thus there will be two Particles of a Fluid, to one solid Particle; which, abating the solid Parts thrown off by Siege, will suffice to make the Chyle abundantly thin, to circulate through all the fine Channels, whose Diameters are larger than that of the solid Particle, the principal End of its Thinness and Fluidity. More than this would but distend the Vessels, 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 less would not sufficiently 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 Blood-warm, and to drink it after their Meal is over, if they can do it with Ease, rather than in the time of Eating: For the more spirituous and most nourishing Parts of the Food will readily run off, without much Dilution; and it will be the grosser and harder remaining Part, that will want it most. And if, some time after their great Meal, they find their Stomach loaded, the Food rising, hard Belching, Heart-burning,
or much yawning, to swallow down and dilute it with Milk-warm, light Green-tea, or warm Water, rather than to run to Drams and Cordials, the usual, but most pernicious Antidote in such Cases: And upon great and heavy Oppression, much Trouble and great Struggle in the Digestion, to have recourse to Carduus or Chamomile-flower Tea, to bring it up, rather than to trespass in these poisonous and caustic Liquors, which, though they may at present lessen 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 Distability, and rheumatic Stitches and Pains.

§. XX. Upon the Head of Cordials, mention'd in one of the foregoing Articles, I cannot forbear setting down one, whose Virtues and Efficacy I have long tried, and have never found it fail, when any thing would succeed: And I recommend it (to be kept by them) to all those who are liable to low Spirits, Fainting, Oppressions, Sickness at the Stomach, Head-aches, and Vapours; and also to those, who, wanting to exert themselves in any Business of Consequence, need a Flow of Spirits for some
some short Time, for that Purpose; or indeed, upon any sudden Accident arising of its own accord, out of the Habit itself: I think it a kind of an universal Remedy, but never to be used but upon such Occasions; because Use may weaken it, if not extinguish its Virtue. 'Tis thus:

**Take** of simple Chamomile-flower-water, six Ounces; Compound Gentian, and Wormwood-waters, each an Ounce and an half; Compound Spirit of Lavender, Sal Volatile, Tincture of Castor, and Gum Ammoniac, dissolved in some simple Water, each two Drachms; Tincture of Snake-weed, and Tincture of the Species Diambrae, each a Drachm; the Chemical 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; Alafœtida and Camphire in a Rag, each half a Drachm: But these may be left out by those to whom they are disagreeable.

Two, three, or four Spoonfuls of this, is a present Help in such Cases. It will keep six Months good.
General Rules for Health and Long Life, drawn from the Head of Meat and Drink.

1. The 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 consist of the grossest Parts, are hardest of Digestion; the constituent Particles coming into more Contacts, and consequently adhering more firmly.

3. These Substances, whose 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 separated, because united by plain Surfaces, under which they are always comprehended. And in the last Stages of the Circulation, where it is slower, it cools readily into larger Clusters, and so are harder to be driven out of the Habit. From these, we may easily 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...
and Long Life. 73

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, soft, and sweet, than those of a strong, poignant, aromatical, or hot Taste. (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 cram'd Poultry and Stall-fed Cattle, and even Vegetables forced by Hot-beds, tend more to Putrefaction, and, consequently, 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 grosser Air.

8. No-

9. Where Exercise is wanting, as in studious Persons, 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 Diseases proceed from Repletion; as appears from their being cured by Evacuation.

11. Tender Persons 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 eat so much as indisposes for Business.

13. A more sensible and readier one, is, first, by Experience to find out how much fits one, so as to be lighsome and healthy under it; and ever after to judge the Quantity by the Eye; Nature requiring therein no mathematical Exactness.

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

15. Water is the most natural and wholesome of all Drinks, quickens the Appetite, and strengthens the Digestion most.

16. Strong
16. **Strong and spirituous Liquors, freely indulged, become a certain, tho' a slow Poison.**

17. **There is no Danger in leaving them off all at once; the Plea for continuing them being false and groundless.**

18. **The best strong Liquor for weak and studious People, is Wine; the best Quantity, a Pint in 24 Hours; 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 strong Wines.**

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

21. **The frequent 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 Constitutions.**

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

24. **Cof-**
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, small Liquor: But **Bohea** is too heavy for the Stomach.

26. **Chocolate** (as all Nuts else) is so 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 snuffing the gross-cut Leaf in the Morning, are useful to phlegmatic Constitutions; 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 present and certain Relief, for sudden Qualms, Fainting, Sickness, or low Spirits; but never to be taken but in case of Necessity.
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 wasted: And all animal Bodies, from an active and self-moving Principle within them, as well as from the Rubs of Bodies without them, are constantly throwing off some of their superfluous and decayed Parts; so that animal Bodies are in a perpetual Flux. To restore this Decay and Waste of animal Bodies, Nature has wisely 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 Nourishment; the other, to apply those Materials to the proper wasted Parts, and to supply the
the Expences of Living. And it seems 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 Nourishment to the decayed Parts, to recruit the Blood, perfect the Secretions, and to lay up Plenty of Spirits, or (to speak more philosophically) to restore the weakened Tone of nervous Fibres; that is, in short, to restore the Decays of Watchings and Action: This, I say, is as improper, as it would be (were it possible) 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 Rest till many Hours after such 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 sound, sweet, and refreshing, according as the alimentary Organs are easy, quiet, and clean. If any one, not suffering 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 restless Nights, and the Difficulty of going to sleep, which are generally ascribed to Vapours, are entirely owing to these Causes; though they be not so strong, as to become sensible; for then Pain is added to Watching, and they are felt. And, upon Complaints of such restless Nights, I never once failed, upon Inquiry, of finding the true Cause in the Diet of the preceding Day, or of some few Days before; and constantly have discovered, that some Error in Eating and Drinking, either in Quantity or Quality, has produced them. I have been astonished to see hypochondriacal and hysterical People restless all Night, tossing and tumbling till towards Morning, then dropping asleep till late Hours, awake heavy, oppressed, and unrefreshed, complain of being Hag-ridden, tired, and wearied, as if they had been whipped, spurred, lapsed, and beaten thro' all the Watches of the Nights; rise with foul Mouths, and white Tongues, Belchings, Yawn-
Yawnings, Coughing, Spitting, or Reaching and Heaving, without Appetite, or Spirits of Life, all the Day-time; begin to live and breathe, become cheerful and hungry about ten, eleven, or twelve o'Clock at Night; eat a hearty, various, and luxurious Supper, drink a cheeruping Cup of the best, become as merry as Crickets, and long to sit up later; at last, tumble to Bed, and repeat the same Farce over again. The Reason of all this Complaint, is the Load on the Stomach, that will not suffer them to rest, till 'tis got off. The sharp and crude Humours, twitching and twinging the nervous Fibres and Coats of the Bowels, become like so many Needles and Pins constantly running through them, though not always with sensible Pain: The unconcocted Chyle, stopping or circulating slowly, first in the Bowels, then in the smallest Vessels, begets these Convulsions, Flatus, Night-mares, and Oppressions of Spirits. So that the secondary Digestions 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
or no Supper at all, and bear the Inconveniencies thence arising; their Appetites would come in due Season, and they would quickly find the Truth of the Aphorism of the Schola Salernitana;

* Somnus ut fit levis, fit tibi Cæna brevis.

§. III. The Seasons for Sleeping and Watching, which Nature seems to point out to us, at least in these our Climates near the Tropic, are the Vicissititudes of Day and Night. Those Damps, Vapours, and Exhalations, that are drawn up into the higher Regions, and are so 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-season; and consequently must be injurious to those tender Persons that unnaturally watch in that Season; and must necessarily obstruct the Perspiration, which the Activity of Watching, and the Motion of Labour, promotes. I have already shewn, that our Bodies

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

draw
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 easily conceive, what Injury a Constitution may receive, not only by stopping such a perpetual Discharge 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 Night-time. Your true Topers are so sensible of this, that, by Observation, they have gather'd it to be more safe for their Health, and better for prolonging their Lives, to get drunk betimes and go to Bed, than to sit up and be sober.

§. 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, disturbing the Quiet of the Air, must necessarily disorder the equable Course of the Perspiration, the Tenour of the secondary Concoctions, and the Tranquility of the Spirits, so necessary to Rest and Quiet.
Quiet. So that nothing seems more directly pointed out to us by Nature, than the Day for Labour, and the Night for Rest; and this, without taking in the Consideration of the Necessity 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 Rest, not twice in twenty-four Hours, but twice in the Year; viz. Summer and Winter; such as Swallows, Bats, and many Sorts of Insects, which sleep all the Winter, and watch all the Summer. So consistent is Nature, in appointing the brightest and most enlightened Parts of our Lives for Action, and the darkest and most inclement for Rest. Nor but that robust Constitutions (as well as Animals fitted by Nature for different ways of living) may, by Custom, get the better of these natural Appointments: But I write for the Valetudinary, the Studious, and the Contemplative.

§. V. I ADVISE all such, if they would preserve their Health, and lengthen out their Days, to avoid, as much as is possible, evening Dews, nocturnal Studies, and unseasonable Watching; in Summer, to go to Bed with the Sun; and in Winter, to rise
rise at least by Break of Day. Those who live temperately, will necessarily sleep but little: But, to recompense that, their Sleep will be much more sound, refreshing, and fruitful of Cheerfulness and free Spirits, than that of those who live more freely. For, as I have before said, 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 rise by Four, Five, or Six, by which they will have eight Hours a-bed; and that is sufficient for any Person not under an acute, or the sharp Fits of a chronical Distemper.

§ VI. Nothing can be more prejudicial to tender Constitutions, studious and contemplative Persons, than lying long a-bed, or lolling and soaking in Sheets, any time after one is distinctly awake, or has slept a due and reasonable time: It unnecessarily thickens the Juices, enervates the Solids, and weakens the Constitution. A free, open Air, is a kind of a cold Bath, especially after rising out of a warm Bed; and consequently makes the Circulation brisker, and more complete; and braces up the Solids, which lying a-bed dissolves and soaks.
soaks 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 rise 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 Cheerfulness and Alacrity that is felt by the Approach or Presence of that glorious 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 Season 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 System, in most tender Constitutions, and the Hurry the Spirits are under after the great Meal,
Meal, are settled and wrought off. I should advise therefore those who are of a weak relaxed State of Nerves, who are subject to hypochondriacal or hysterical Disorders, whose Professions lead them to much Use of their intellectual Faculties, or who would indulge speculative Studies, to go early to Bed, and to rise 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 rest of the Day to throw off all Study and Thought, divert themselves 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 Rest, and the stiffen'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 Long Life, drawn from the Head of Sleep and Watching.

1. The Valetudinary, the Sedentary, and the Studious, should eat very light, or no Supper; if any, it ought to be vegetable Food; neither ought they to go soon to Bed after any Supper whatsoever.

2. Going to Bed on a full Stomach, and Wind and Crudities somewhere in the alimentary Passages, is the Cause of the want of due Rest, which is sound and refreshing, always in proportion to the Emptiness 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 Consequence 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 unseasonable Watching; go to Bed by Eight, Nine,
Nine, or Ten, and rise proportionally 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 drowsy Sleep, or lolling or loitering awake; as appears by their Heaviness, and want of Appetite, upon doing so; and their good Stomachs, Cheerfulness, and Freedom of Spirits, when they rise 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, rise betimes, go about their Studiess till Eleven, taking a light vegetable Breakfast; prosecute them till about Four in the Afternoon; then to take their great Meal of animal Food; and after that to employ the rest of their Time in some innocent Amusement, or gentle bodily Exercise; to retire betimes, to prepare for going to Bed, taking no farther Nourishment, except a Draught of Water, or warm Sack-whey, which will be particularly useful to those who labour under Stone and Gravel.
CHAP. IV.

Of Exercise and Quiet.

§ I. We proceed, in the next, Place, to the Consideration of Exercise and Quiet, the due Regulation of which is almost as necessary 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 sedentary and contemplative Life, is a Speculation of no great Consequence, nor easily 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; so, to me, there appear to be evident Indications of a designed Change and Alteration of the material World, and the Nature of the Animals and Vegetables which subsist on this Globe, from what they were when God pronounced every Thing
Things *Good* that He had made. Nor seem the *Celestial* Bodies to have escaped, so far as they regard us. Whatever be in this, the Passage where God tells Adam, *That in the Sweat of his Brow he shall eat Bread*, seems to be the Injunction of a *salutary Penance*; that is, Not merely a *Punishment*, but also a *Remedy* against the Disorders 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 Necessity* of *Labour* and *Exercise*, to preserve the Body any time in due Plight, to maintain *Health*, and lengthen out *Life*. For, let whatsoever *Diet* be pursued, however adjusted, both in *Quantity* and *Quality*; let whatever *Evacuations* be used to lessen the *Malady*, or any † *Succedaneum* be proposed, to prevent the ill *Effects*; our Bodies are so made, and the *animal Economy* now so contrived, that, without due *Labour* and *Exercise*, the *Juices* will thicken, the

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

*Joints*
Joints will stiffen, the Nerves will relax; and, on these Disorders, chronical Dis-
tempers, and a crazy old Age, must ensue. Nor is this necessary only in the colder
Climates, and where the Food is gross, 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 same time, and by Consequence, it will thicken the Fluids, and
relax the Fibres; to prevent both which, Exercise is absolutely necessary: but in
such 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 Tension;
for to that Purpose Exercise is absolutely necessary. Nay, the joint Power of warm
Air, and light Food, cannot supply the Place of Exercise, in keeping the Joints
pliant and moveable, and preserving them from growing resty and stiff.

§. II. I have sometimes also indulgd
a Conjecture, that animal Food, and
made or artificial Liquors, in the original
Frame
Frame of our Nature, and Design of our Creation, were not intended for human Creatures. They seem to me, neither to have these strong and fit Organs for digesting them, (at least such as Birds and Beasts of Prey have, who live on Flesh); nor, naturally, to have those voracious and brutal Appetites, that require animal Food, and strong Liquors, to satisfy them; nor those cruel and hard Hearts, or those diabolical Passions, which could easily suffer them to tear and destroy 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 wisely foresaw, 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 shorten the Lives, and plait a Scourge of Thorns for the Backs, of
of the Lazy and Voluptuous, it would be cautiously avoided by those who knew it was their Duty and Happiness to keep their Passions low, and their Appetites in Subjection. And this very Era 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 insufficient 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 destroying of animal Life, as Things are now constituted, since Insects breed and nestle 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 said, of Nature's being quite altered and changed from what was originally intended, there is a great Difference between destroying and extinguishing an animal Life (which otherwise might subsist many Years) by Choice and Election, to gratify our Appetites, and
and indulge Concupiscence; and the casual and unavoidable crushing of those, who perhaps, otherwise, would die within the Day, or at most, the Year, and obtain but an inferior kind of Existence and Life at best. 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 Flesh-meats, and strong Liquors, inflames the Passions, and shortens Life, begets chronical Diftempers, and a decrepit Age, as the History of the Life of Cornaro manifests to a Demonstration.

§ 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 useful, 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 so quickly pass, every Alteration of which becomes, as it were, a new Bath) and thereby variously 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 Persons, as well as those that are so young, that they are not able to manage their own Exercise. The Home Exercises, such as playing at Tennis and Billiards, Dancing, Fencing, and the like, ought to be follow'd only when the Season 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, wrestle, and run, and constantly to be pursuing Exercises, and bodily Diversions, that require Labour, even till they are ready to drop down, especially the healthier Sort of them: So that sitting, or being confined, seems to be the greatest
greatest Punishment they can suffer; and imprisoning them for some time, will much more readily correct them, than whipping. This is a wise 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.

§. 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 several Vocations, let them be otherwise ever so 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 brawny 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 shaven, the more they grow. And we may promote any one Evacuation so far, as to weaken and starve all the rest. Using any
any Organ frequently and forcibly, brings Blood and Spirits into it, and so 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 Economy might be strengthened, and kept in due Plight.

§. V. Therefore, to the Asthmatic, 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 Weariness warns them, to sit and rest till they are easy, and then to return to their walking again, and so 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 Head- aches, (most of all which arise from the ill State of the Stomach and Bowels) I should recommend riding on Horseback as much as possibly they could, in the clearest and driest Air, and to change the Air daily, if possible: To those who are troubled with the Stone or Gravel, to ride much over rough Causeways in a Coach: To those that have Rheumatic Pains, to play at Billiards, Tennis, or Cricket, till
till they sweat plentifully; and then go immediately into a warm Bed, and drink liberally of some warm thin Liquor, with ten Drops of Spirit of Sal Armoniac or Hartshorn 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 Latitude, will soonest recover the Use of their Limbs to the Gouty; tho' Riding on Horseback, 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 some of the Eastern Nations, with whom Pilgrimages, at stated Times, are an indispensible Duty, and where mechanical Trades are learned and practised 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 indispensible, 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 least that can be dispensed with: As the first Part begets an Appetite, the second help on the Digestion. Those who are not Masters of their own Time, must take it when they can; but to be sure they ought to let no Opportunity of taking it slip.

§. 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 concealed * 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, Exercise would be too tumultuous, precipitate the Secretions, and throw off the sound Juices with the corrupted Humours. Secondly, That it be not continued to downright Lassitude, Depres-
An Essay of Health

I. Essay on the 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; lest, soaking into the wasted 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 Exercise; otherwise the Evil will be as broad one way, as 'tis long the other. For since Exercise will create a greater Appetite, if it is indulged to the full, the convulsive Powers will be as unequal to the Load, as they were before: But I pass that over, having sufficiently treated this Subject already.

§. VII. Under this Head of Exercise, I cannot forbear recommending Cold-bathing; and I cannot sufficiently admire, how it should ever have come into such Disuse, especially among Christians, when commanded by the greatest Law-giver that ever was, under the Direction of God's Holy Spirit, to his chosen Peo-
and Long Life.

ple, and perpetuated to us, in the Immersion at Baptism, by the same Spirit, who, with infinite Wisdom in this, as in every thing else that regards the temporal and eternal Felicity of his Creatures, combines their Duty with their eternal Happiness. 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 Atmosphere; whereby the Perspiration would be soon 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, so much as Cold-bathing; for by the violent and sudden 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 raised almost ever sufficient to break through all the Dams and Obstructions.
Eftions of the smallest VeJels, where they mostly happen, and to carry the Circulation quite round. Thirdly, Nothing is so injurious, and so much prevents the Benefit of Exercise, to weak and tender Constitutions, as sucking 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 strengthen 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, so as to strengthen it for the future against such 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 Basin 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 Convenience, as often as they can, to go into a River or Living Pond,
Long Life, to wash their Bodies. But this ought never to be done under the actual Fits of a chronical Distemper, with a quick Pulse, Head-ach, weak Lungs, or a foul Stomach; nor ought they to stay in till they are over-kill'd. And in Winter they ought to pursue 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 risques too much the bursting some of the smaller Vessels. 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'sy low) to shorten their Length, so 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 dress'd. And this brings me to say something of another kind of Exercise:
§. 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 so much as to be worth half the feeding. This it can no otherwise effectuate, than by assisting Nature to throw off, by Perspiration, the * Recrements of the Juices, which stop the full and free Circulation, and, by constant Friction, Irritation, and Stimulation, to alliterate Blood and Spirits to the Parts most distant from the Seat of Heat and Motion, and so to plump up the superficial Muscles. The same Effect it would produce in other Animals, even human Creatures themselves, if they were managed in the same manner, with the same Care and Regularity. I should think it therefore well worth the Pains of Persons of weak Nerves, and sedentary Lives, especially those threaten'd with paralytic Disorders, to supply the Want of Exercise of other Kinds, with spending

* i. e. The großer Parts.
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 (especially those of them upon whom they can be so readily made use of, such as Oxen, Pigs, Veal, Lamb, and all Poultry, which naturally delight in Cold-bathing) which are brought to the Table. For certain it is, that Cleanliness, 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, consequently, better Food for human Creatures.

As to Quiet, the Conditions of Exercise being determined, there needs nothing to be said of it.
Rules for Health and Long Life; drawn from the Head of Exercise and Quiet.

1. Whatever was the original Constitution of Man, in our present State a due Degree of Exercise is indispensably necessary towards Health and Long Life.

2. Animal Food, and strong Liquors, seem not to have been designed for Man in his original Make and Frame; but rather indulged, to shorten the Antediluvian Length of Life, in order to prevent the excessive Growth of Wick-edness.

3. Walking is the most 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 Infirm, and young Children. House Exercises are never to be allow'd, but when the Weather, or some bodily Infirmity, will not permit going abroad; for Air contributes mightily to the Benefit of Exercise. Children
Children naturally love all kinds of Exercise, 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.

5. The Lungs are fortified by loud Talking, and walking up an easy Ascent. The Digestion and the Nerves are strengthened, and most Head-aches cured, by Riding; the Stone and Gravel eased, by riding in a Coach over rough Ground; Rheumatic Pains, by playing at Tennis, Billiards, &c. till one sweat; 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 best, by Riding a Horseback, 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.
6. **Exercise.** 1. Should always be gone about with an empty Stomach: 2. Should never be continued to Weariness: 3. After it, one must take care not to catch Cold. And it should always be accompany'd with Temperance; else, instead of a Remedy, it will become an Evil.

7. **Cold-bathing** is of great Advantage to Health; but should not be used under a Fit of a chronical Distemper, with a quick Pulse, or with a Head-ach, 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 foremost.

8. The **Flesh-brush** is a most useful Exercise, 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 design for our Food, as it can be applied to.

C H A P.
C H A P. V.

Of our Evacuations, and their Obstructions.

§. I. The 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 Conscient between both Extremes. * Oportet Sanorum Sedes esse figuratas. Those who are costive, have either over-heated their Bodies with strong Liquors, have eaten too sparingly, have too slow 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 such a Conscient in the Healthy, as to take the Impression of the Guts.

before
before the Mouths of the Lacteals, is over-drain'd of its Moisture: Those who have purging Stools, have eat too much, or of Things too strong for their concotive Powers. For superfluous Nourishment leaves too much Chyle in the * Faces, which, fermenting in the Guts, stimulates them so as to become a Purge. I have often observed, that a full Meal of strong Meat, as Fish, Beef, Pork, baked Meat, or made Dishes, in tender Persons, goes off with the Hurry and Irritation of a Purge, leaving the Bowels inflated, collicked, or griped, and the Spirits sunk to the last 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, \( \dagger \) à posteriori, to judge if we have governed ourselves in our Diet, in proportion to

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* i.e. The Food, after it is drained of its nutritious Parts.
† i.e. After the Trial has been made.
the Necessities of Nature, and the Forces of our concotive Powers. This is the very Reason why the Bark over-dosed, and given to Persons 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 Salvation; to wit, the not adjusting the Doses to the Strength of the Stomach, and nervous Fibres. For the Bark naturally binds, and Mercury naturally rises to the most pervious Glands. And, in this Sense, I myself have frequently observed, in weak and scrophulous Bowels, even Diascordium, and Venice Treacle, to purge: Whereas, had the Doses been duly proportioned, or had they begun by Under-dosing, 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 amis to take notice of a fatal Mistake those run into, who, being weakly, thin, and, slender, 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, strong Food, and swallowing proportionable Measures of generous Liquors, not knowing, that, by this very Method, they promote and confirm the Disease they would remedy: For, in such Persons and Cases, the globular Part of the Blood is constantly of a small Quantity, and very glewy; and the serous Part, thin and watry, (that is, the Blood is poor and weak) and the Solids or Nerves are loose and relaxed. And the concovtive Powers being in Proportion to these Two, of Consequence, the Digestions must be weak and imperfect, and their Force unable to dissolve and break any Quantity of such strong Meat, or spirituous Liquors, into a proper Chyle for Nourishment. And this great Load must either be hurry'd off entirely thro' the alimentary Ducts in supernumerary Discharges, or the small Portion of Chyle drawn out of it, being too gross to unite, and make a similar 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 Case is the same with Nurses and Parents, in rearing up young Children. The perpetual
tual Gripes, Colics, Looseesses, hard Bellies, Choakings, Wind, and convulsive Fits, which torment half the Children of England, are entirely owing to the too great Quantities of too strong 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 Choak- ings, imply, but Crudities from superfluous Nourishment? This is so 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 Milk- clysters, Issues, and Blisters, which are still upon the Foot of Evacuation; by obstinately persisting in these, and the like (intended to evacuate and strengthen the alimentary Passages) and a thin, spare, and nutritive Diet. Nothing nourishes 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 treats
treats his wafted and decayed Horse: And (which is wonderful) you shall find a sagacious Horse-Doctor plump up and fatten a rotten, lean, broken-winded Jade, and make him look sleek, gay, and lively, so as to cheat not only the Esquire, but his Brother Doctor, in fewer Weeks, than all the Man-Doctors in England could rear up their Fellow Creature in Years. 'Tis true, the Juices of Men are more variously, and more thoroughly corrupted, and their Solids entirely broken, which never happens to the Brute Creation. But the greatest Mistake lies in the Neglect of duly observing, and religiously prosecuting, a proper Regimen. This must principally consist in a Diet of soft, light, tender, cool, and mucilaginous Foods, or such as are already become Chyle, either by Nature or Art, such as Milk, and Milk-meats, Rice, Sago, Barley, Wheat, Eggs, Broths, light Soups, Jellies, white, young, tender, and well-fed Poultry, or Butchery-meat, eaten little at a time, and often, never without an Appetite, nor to Satiety; joining to these, the other Helps and Assistance mentioned in this Treatise. When Flesh is once come, 'tis easy to make it strong and hardy, by due Exercise, and a gradual adventuring upon
upon higher Foods, and more generous Liquors.

§. III. I have often heard valetudinary and tender Persons, and those of sedentary Lives, and learned Professions, complain of Head-achs, Sicknesses at the Stomach, Colics and Gripes, Lowness of Spirits, Wind, and Vapours; and yet pretend they were very moderate and abstemious in their Eating and Drinking: But, upon Inquiry, I constantly found these very Persons pursued with purging Stools; which was, an evident Proof, to me, that they had taken down more than they wanted, or could digest. For 'tis universally certain, that those that do not exceed, must have either constive, or, at least, Stools of a middle Consistence. There is nothing more ridiculous, than to see tender, hysterical, and vapourish People, perpetually complaining, and yet perpetually cramming, crying out. They are ready to sink into the Ground, and faint away, and yet gobbling down the richest and strongest Food, and highest Cordials, to oppress and overlay them quite. Fresh and generous Food, mixing with the sharp Humours of the Stomach and Bowels, may, for some short time, qualify and abate their Irrita-

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tation, and may give a Fillip to the sluggish Circulation, and become, as it were, a Cork, to stop 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 pestilent Steams of a Common-sewer, by throwing in greater Heaps of Ordure and Nuisance into it. The proper Remedy in this Case is, first, to cleanse the fetid Abyss, and then to preserve 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 Disorders, universally proceed from Idleness, and Fulness of Bread.

§. IV. Those who eat but one moderate Flesh-meal a Day, will have regularly, once a Day, a Discharge of the Remains of their Food. And, generally speaking, those that go oftener, have exceeded some-how. Those who pretend to cure themselves of nervous Disorders, or any other chronical Diseases,
or preserve themselves from them, or lengthen out their Days, must underv
dose themselves, (and therefore can go but once in two Days) even tho' they shou
d undergo the Pain of Costiveness. For 'tis impossible the Nerves of those who have slippery Bowels, should ever be braced, or wound up; for there the Cure must begin where the Evil began, and must be communicated thence to the rest 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 since 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 shorten 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 Fiddle-string soaking in Oil and Water, to make
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 six natural Days. The Curious may be satisfy'd in this, by swallowing an Almond, or any other Nut, which passes without being broken, or making any Irritation. The Reason is this, That a smaller Quantity of Food is retained longer, by their Suction, at the Mouths of the Lacteals, to drain it entirely of its Chyle; and its Weight being less, the concoctive Powers have the greater Force upon it, and so it is retained till it is perfectly digested, and drain'd of all its Humidity, whereby such People become constive; whereas, in People that exceed, the contrary Causes precipitate the Course of the Aliment, and so leave the Bowels always slippery. And nothing can more demonstratively shew an Excess, than the Lubricity of the Discharge; and I have
have often observ'd in tender Persons, 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. 1. It requires the same Time for the unconcoled Chyle of a gross 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 likewise gather from thence, a Confirmation of that Aphorism of the Physicians, That the Errors of the first Concoction are never mended in the subsequent, unless the Case to be mentioned in the next Paragraph be an Exception to it. For 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 some Sorts of Food which may oppress and load the Stomach, and alimentary Ducts, in the first Concoction, which may be very safe and benign in the subsequent ones. For Instance; Cheese, 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 Inconvenience): But these neither having their Parts strongly united, nor abounding in sharp urinous Salts, when they become sufficiently diluted with a watry Menstruum, or dissolved into their component Parts, and their Parts being still smaller than the smallest Vessels, and their
their Union constantly less, than the Force of the concititious Powers, in Persons who have any remaining Fund of Life in them; will thereby yield a sweet, thin, and easily circulating Chyle, in the after Concoctions become benign and salutary, and afford no Materials for chronical Distempers. And the Wind thence generated, not being pointed and armed with such sharp Salts, as those of Flesh-meats, or the corrosive Juices of spirituous Liquors, will be as innocent and safe, 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 discover 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-
Spiration is stopp'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 lesser Drains; and that the urinous Salts are still retained in the Habit. Upon which must needs ensue Oppression of Spirits, Chills upon the Extremities, flying Rheumatic Pains over the Body, Head-achs, Colics, and Gripes. And here it may not be amiss, 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 so often the low and dispirited Persons of the first Class. The Water of both has the same Appearance, both in Quality and Quantity; at least, in the first Instance, they are both attended with the same 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 hysterical Persons, there is little or no Thirst, never a quick
Pulse, but rather too low and slow a one; the Flux soon stops of itself, or by any little diaphoretic Medicine; and they are cold upon the Extremities, which the others are not.

§. VIII. That bluish and variegated Film, which sometimes looks like Oil and Fat swimming on the Water of scorbutic and cachetic Persons, is nothing but the congregated Salts, which are crowded so thick together, that they are ready to shoot into Clusters, much like the Film of a * Lixivium, when standing 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 Absence of Repletion and Crudity. And those who live temperately, use due Exercise, and enjoy a perfect State of Health, always make such Water.

* i. e. a Lye.

§. IX.
§. IX. Those who are subject 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 some time, or using more Exercise. And to stop their Flux of pale Water, they ought to take a little Gascoign's Powder, Confection of Alkermes, or Sir Walter Raleigh's Cordial at Night, and drink liberally of small, warm Sack-whey, 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, Disorders and Diseases, they must lessen the Quantity of their Flesh-meat, and temper the Heat of their Wine with Water; else they will lay the Foundation of some acute, inflammatory, or dangerous chonical Distemper.

§. X.
§. X. The worst 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 Diseases, always indicates insuperable Crudity, high Inflammation tending towards Mortification, and a dying Languor in Nature; and, in Persons labouring under no visible Distemper at the Time, an almost total Debility of the concōptive Powers, an inseparable 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 say nothing of Coffee-colour'd, bloody, wheisy, 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 Passages.

§. 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 com-
mon Ætiology*. It is when either a white, transparent, viscid Substance, like Jelly, is constantly voided by the Bowels, more or less; or when a white, milky, gowy Substance, like Cream, or laudable Matter, settles in the Water: Both these Appearances are commonly ascribed to an Ulcer in the Guts, or in the Kidneys, the very Apprehension of which is almost sufficient, in some low Persons, to bring on the Distemper feared: And yet, I am very certain, there is neither Ulcer, nor true Matter, in either Case, 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 Case I here intend, there is very little or no Pain; no hectic Paroxysms, which always attend an inward Ulcer; no bloody or janious 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 Phyllic which teaches the Causes of Diseases.
the least capable of Inflammation or Impostumation, viz. to paralytic Persons, or those of a natural Tendency that way, to cold, vapourish Persons of low Spirits, and weak Nerves, whose Pulse is low and slow, and their natural Functions weak and languid; all which evidently shew, that these Discharges cannot come from an Ulcer. The first Case I take to be either an Obstruction of some of the Læteals, whereby the Chyle cannot be carried off in any sufficient Quantity, but, passing through the Guts, and its more watry Part being evaporated, it becomes thick and gelatinous, and is thrown off at last with the Remains of the Food. Else it must be an Obstruction of those Glands of the Guts, by which a viscid Matter, for lubricating of them, is commonly secreted; 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 same manner, I take that milky Substance subsiding in the Water, in such a Case as I have mentioned, to arise from a Relaxation of the Glands of the Kidneys and Bladder,
der, and other urinary Passages; and that both are to be cured the same way other nervous Distempers are cured; viz. by a proper Regimen of Diet, and a Course of contracting, strengthening, and volatile Medicines.

§. XII. The insensible Perspiration is the Third Evacuation to be considered. The Statical Chair, invented by Sancto- rius, for examining the Quantity of the Perspiration, however ingenious and delightful in Speculation, is too cumbrousome 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 necessary to Health as any of the groffier, since in Quantity it is at least equal to both the fore-mentioned; and an Obstruction thereof is generally the Source of all acute Diseafes, 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 Perspiration) and have Fluxes of white and pale Water, to a ready Antidote to prevent the Beginnings of these Obstruc- tions.

§. XIII.
§ XIII. Dr. * James Keil has made it out, beyond all possibility of doubting, that catching of Cold is nothing but sucking 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 small Fever, and a Tumult in the whole animal Economy; and, neglected, lays a Foundation for Consumptions, Obstructions of the great Viscera, and universal Cachexies. The Tender therefore, and Valetudinary, ought cautiously to avoid all Occasions of catching Cold; and, if they have been so unfortunate as to get one, to set about its Cure immediately, before it has taken too deep Root in the Habit. From the Nature of the Disorder thus described, the Remedy is obvious; to wit, lying much a-bed, drinking plentifully of small, 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-
cough'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 sweet Almonds; or a Solution of Gum Ammoniac, an Ounce to a Quart of Barley Water, to make the Expectoration easy; and going cautiously and well clothed into the Air afterwards. This is a much more natural, easy, and effectual Method, than the Practice by Balsams, Linctuses, Pectorals, and the like Trumpery in common Use, which serve only to spoil the Stomach, oppress the Spirits, and hurt the Constitution.

§. XIV. The surest way of maintaining and promoting a due Perspiration is, To take down no more Food than what the concotive Powers are sufficient to reduce into a due Fluidity, and the Expences of Living require; to prosecute necessary Exercise, and use the other Assistance advised in the foregoing Chapters. Want of due Rest, and the Refreshment that follows upon it, start-
ing, tossing, and tumbling a bed, are certain Signs, that the Perspiration is not duly carry'd on in the Night-season. 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 Eruétation and Belching of Wind, Low-spiritedness, Tawning and Stretching, are infallible Signs, that the Perspiration flows not freely and plentifully then. And therefore the same Remedies ought to be prosecuted, as soon 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 pressing upon the excretory Ducts in the Skin, to force out the sluggish perspirable Matter. And 'tis beautiful to observe, how wisely Nature has contrived the Spasms, Cramps, and Convulsions of the proper Organs, to expel every noxious and extraneous Body out of the Habit. Thus...
Coughing is a Convulsion of the Diaphragm, and Muscles of the Breast, to throw out viscid Phlegm: Vomiting, of the Stomach, (assisted 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 assist Perspiration; and Yawning, to pump noxious Wind. And even Laughing itself is an Effort of the Muscles of the whole Trunk, to throw off something that its delicate Membranes cannot bear. And, lastly, hysterical Fits and Convulsions, both in Infants, and Persons come to Maturity, are but violent Efforts, Struggles, Workings, Cramps, and Spasms of all the Muscles 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 Persons of weak Nerves, which could not conveniently come in under
under the general Division, because it happens too seldom 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 scrobutic Spitting. It rises sometimes to the Height of a petit Flux de Bouche, as the French call it; and threatens some tender Persons, as they apprehend, with a Consumption, though it imply nothing less. We may observe some, who are struck with a deep Palsy, to flow at the Mouth, and drivel down their Breasts; insomuch that the Afflicted of this Sort, who are advanced in Years, can scarce speak intelligibly for the Flux, till they have first emptied and cleaned their Mouths. And this arises to so great an Height, in some much broken, paralytic Persons, that, upon the slightest Occasions, either of Joy or Grief, they are apt to run into a Profusion of Tears, Sighs, and Sobbings. And some 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 salival Discharges, especially after Excesses in Diet. Hence the first Sort receive the Appellation of Snivellers or Drivellers.
And the Difficulty of the Cure of all the Diseases 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 Concoitions have been duly performed. I have frequently had Occasion to shew, how Excesses in the Quantity or Quality of the Food, in Persons 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 Passages; begot Winds, Gripes, and Colics; and at last wrought itself off like a Purge; and that that Part, which got through the Lacteals, 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 salivary Glands, which are appointed by Nature to secern the more glutinous Parts of the Fluids. And from thence this salivary Inundation
tion proceeds. The Fact is, When those of weak Nerves commit habitual Ex-
cesses in their Diet, the Glands, and small Vessels, of all the Body are tumefied,
swelled, and obstructed thereby, as they needs must be. And 'tis from the
Pressure of these enlarged Glands, and the obstructed capillary Vessels, on the
Nerves, and patent Blood-vessels, that most of the Evils they suffer under,
proceed. But more especially, are the Glands, appointed to draw off the more
viscid serous Part of the Blood, obstructed and tumefied thereby. Upon which Ac-
count, 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;
so I think 'tis highly reasonable, in a chroniclal Case, 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 speak of Diamonds) and more especially
if the lachrymal Gland in the Corner next the Nose, which I always narrowly
inspect; if, I say, this Gland be found harder or larger than ordinary, swelled
and tumefied, it must certainly be con-
cluded, whatever else be in the Case,

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there must be a relaxed State of Nerves, much Vapours, weak natural Functions, and a mismanaged Regimen. And it is from the Obstruction and Swelling of this and the other Glands, in and about the Eyes, and their Pressure upon the optical Nerves, and fine Blood-veins, that those Spots, Flies, Atoms, Dimness, Darkness, and Confusion of Sight, in vapourish and hysterical People, proceed. For this Gland shews, that the whole serous Glands in the upper Regions of the Body are, in Proportion, tumefied and swelled with viscid Humours, through Excess of Diet; unless the Person have suffered there by Accident, or labours under some natural Disorders of the Eyes. From the Obstruction and Swelling of the salivary Glands in the Mouth, Throat, and Gullet, proceed all those Choakings, Gulping, and Strangling, that hysterical Persons so often complain of. The Wind and Crudities lodged in their Stomach and Guts, and the rest of the Cavities of the Body, pressing to get Vent upwards, are resisted and flopp'd in their Passage by the Diaphragm; whereby the Inspiration is frighten'd, and, by the Bulk of these Glands throughout the Gullet, the Way is entirely flopp'd; which
which raises such a Tumult and Struggle, as produces the mentioned Symptoms; which I have not Leisure to detail here more minutely. Now this Salivation or Discharge of the thinner Rheum, and that Coughing and Hauking of more viscid Phlegm, commonly called a nervous Cough, as also the Chin-cough of Children, and all such Discharges of sharp Serum in Persons of weak and relaxed Nerves, is an Effort of Nature to relieve them. And, if discreetly managed, and duly heeded, would prove a Crisis to their Disorders, and quite free them from their present * Paroxysms, and set the Circulation and Perspiration, and consequently the Spirits, at Freedom and Liberty again. Some Persons 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 serves only to thicken the Phlegm, shut up the Mouths of the salivary Glands closer, and so to perpetuate the Evil they mean to cure. Others devour large Quantities of high and generous Foods, because they find a little

* The sharpest Part of the suffering Fit of a Disease.
Relief to their Spirits, from the first Run of the sweet, thin, and spirituous Chyle: But this is only adding Fuel to the Fire, and running on in a perpetual Round of Lowness and Slavering: Whereas, would they suffer 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-dosed Quantities, support her in the manner the con-coctive Powers are sufficient for, after she had discharged all the Crudities from the Mails of the Fluids, by these emunctory Glands, and thereby given a free Passage to the Wind to escape the Way it tends, the Salivation would lessen 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 Passages, 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, lightsome Spirits, Ease and Freedom from Pain and Oppression; the Circulation and Perspiration would be soon brought to
to their natural and sound State, and Health and Cheerfulness restored together; unless a mortal or habitual *Ptyalism was the Case, which I have sometimes observed as fatal and incurable as a true Dropsy, or inveterate Diabetes; all which owe their being to a deep Scurvy, whereby the globular Part of the Blood is entirely broken, and the Serum made a mere Lixivium or Lye.

Rules for Health and Long Life, drawn from the Head of Evacuation.

1. Costive Stools are Signs of overheated Blood, too spare Feeding, Slowness of Digestion, or Weakness 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 over-dosed, purge.

* Spitting.

3. Head:
3. Head-achs, sick Stomachs, Vapours, low Spirits, Gripes, and Colics, proceed from Cramming, and are ever accompanied with loose 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 Disorders, the Day the Excrements of it go off, than the Day it is eaten.

8. A Meal takes the same Time to get through the Habit by Perpiration, that its Remains do to pass through the Guts.

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

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

11. Though Cheese, Eggs, Milk, and vegetable Foods, may be hard to digest, without drinking of Water, to some 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 hysterical 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 rising toward the Top, amounting to three Quarters of what
what is drank, is a Sign of good Digestion.

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 small Quantity, shews Abundance of animal Salts in the Habit, or the immoderate Use of spirituous 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 Cases, 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 Obstruction of Perspiration, by the humid and nitrous Particles of the Air. It should be cured by gentle Diaphoretics, and not by balsamic 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.
CHAP. VI.

Of the PASSIONS.

§. I. I COME now, in the Order of my first proposed Method, to treat of the Passions, 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 resides eminently in the Brain, where all the nervous Fibres terminate inwardly, like a Musician by a well-tuned Instrument, which has Keys within, on which it may play, and without, on which other Persons and Bodies may also 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 Sensations 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, since Spirits (if I may be allow'd there are any such Beings) may be supposed to act upon one another, without the Mediation of organical Bodies, (such, perhaps, was St. Paul's Ecstasy, when he was rapt up into the third Heavens; such was Moses'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 serene and tranquil, while the Body is in Distress and Pain; and even all the Stoic Philosophy is grounded on this Distinction) it

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must
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 Spirit, from those made on the Body.

Prop. II. The Union of these two Principles in the Compound, Man, seems to consist in Laws pre-establisht' 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, establisht' 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, seems to be, That upon such and such Motions produced in the musical Instrument of the Body, such and such Sensations should arise in the Mind; and on such and such Actions of the Soul, such and such Motions in the Body should ensue; 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 otherwise unintelligible Writing. Besides these Passions and Affections, which are involuntary;

PROP. III. As Bodies are purely passive, and are acted upon by other Bodies, conformable to the settled Laws of Nature; in Spiritual Beings, on the contrary, there is an active, self-motive, self-determining Principle, by which it directs and manages itself with regard not only to its own Self,
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and its own Sentiments; but also 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 exists, and is essential to spiritual Beings, is as certain, as that there is Motion in the Universe, or that Body and Spirit are essentially different. For, that Motion is not essential 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 possible Objections and Difficulties, 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,
nitz, 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 established by the Author of Nature; so 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 known, (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 Knowledge we can have of Nature, while we can see 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
could create intelligent Beings only in order to make them happy, could not leave them to so many different Attractions, without implanting into their Essence and Substance, as an Antidote to such Variety of Distractions, an infinite Tendency, Bent, and Bias, towards Beings of the same Nature, and towards Himself, who was the Cause 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 Desire of Immortality, and Dread of Annihilation; what the World calls the Seeds of Honour and Renown; all that Concern and Regard paid mere romantic Heroes; and the Worship beslow'd by all Nations, who are not sunk into mere Brutality, on some superior and invisible 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
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for * Moses calls it, A Law engraven on the Heart of Man; and † St. Paul, The greatest Perfection of human Nature.

COROLL. 1. 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 speak so in a figurative Sense) then their being finally united with this their Divine Original, is the supreme spiritual Good; and the several Approaches towards this Union, are inferior spiritual Goods; as the being finally separated from it, is the supreme spiritual Evil; and the several 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.

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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 since outward Objects may be consider’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 exhausts their whole Extent. And in this Sense all the Passions 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 descend to a more particular Account, not intending an accurate Treatise on the Passions, but only to lay a Foundation for some general Observations on them, as they regard and influence Health and Long Life.

§. II. In relation to the organical Instruments of the Body, and the Effects wrought on them, or the Disorders brought
brought upon them, the Passions may be divided into Acute and Chronical, after the same Manner, and for the same Reason, as Diseases are. The acute Passions, whether pleasurable or painful, have much the same Effect, and work much after the same manner, as acute Diseases do. They effect a brisk and lively Circulation of the Fluids, crisp up and constrict the Solids for some short Time. Thus sudden GUSTS of Joy or Grief, Pleasure or Pain, stimulate and spur the nervous Fibres, and the Coats of the animal Tubes; and thereby give a Celerity and brisker Motion to their included Fluids, for the same Time. And the Functions of the Heart and Lungs being involuntary, they have their more immediate Effects upon them. Thus both sudden Joy and Grief make us breathe short and quick, and make our Pulse small and frequent. The retaining our Breath for some 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 superficial Vessels of the Face, Neck, and Breast, and so produces a Blush; which, when longer continued, and being very strong, 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 sigh upon some Occasions, and blush upon others, depend upon the different Structure of the Organs of Pulsation and Respiration. A quick, surprising Pain of Mind acts upon the Heart, because the Motion of the Heart is altogether involuntary: So that a sudden Constriction takes Place there immediately to increase the Pulse: Whereas we have some Power over the Breathing; we can stop or suspend it for a Time; and when we are thinking intensely, our Attention partly makes us hold our Breath; and hence ensues Sighing, rather than Blushing. For the Pain, being slow, quickens the Pulse more gradually: But if it continues long, both Actions of both Organs are respectively produced; and hence it comes to pass, that, upon Anxiety, Concern, and earnest Expectation, the Pulse is found quick and small.
small, and the Breath thick and difficult, as Experience shews. The same 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 Course. The sudden Gusts of these Passions being thus accounted for, when they become extreme, they drive about the Blood with such a Hurricane, that Nature is overset, like a Mill by a Flood: So that what drove it only quicker round before, now entirely stops it, and renders the Countenance pale and ghastly. Sudden and great Fear and Grief do so convulse the nervous System, that sometimes they alter the Position of the Parts, and fix them in a new one. 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 stopp’d at once; and Fainting, and sometimes Death, ensues.

§. III. The chronical Passions, like chronical Diseases, wear out, waste, and destroy the nervous System gradually. Those Nerves which are necessary for consider-
considering, brooding over, and fixing such a Set of Ideas on the Indignation, being constantly employ'd, are worn out, broken, and impaired. The rest, by Diffuse, become restless and unactive, lifeless, and destitute of a sufficient Flux of warm Blood, and due Nourishment. And thus the whole System languishes, and runs into Decay. Thus slow 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 Seasons of necessary Food, and due Labour, be neglected, and thereby depriving the natural Functions of their wonted Supplies, overworking some Part of the nervous System, and leaving the other to rust, and become restless, for want of Use. Some of these Passions, as Love, Grief, and Pride, when very intense, and long indulg'd, terminate even in Madness. The Reason is, as I have been saying, because long and constant Habits, of fixing one Thing on the Imagination, beget a ready Disposition in the Nerves to produce again the same Image, till the Thought of it become spontaneous and natural, like Breathing, or the Motion of the Heart, which the Machine performs.
performs without the Consent of the Will; and also a Disability or *Tetanus ensues on the other Parts; just as the Faquirs in India fix one or both Hands, by long holding them up, so 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 Persons so distemper'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 disordered, and the Juices are become viscid and gummy. This Melancholy arises generally from a Disgust or Disrelish of worldly Amusements and Creature-comforts, whereupon the Mind turns to Religion for Consolation and Peace: But as the Person is in a very imperfect and unmortified State, not duly instructed and disciplined, and ignorant how to govern himself, there ensues Fluctuation and Indocility, Scrupulosity, Horror, and Despair.

§. IV. S I N C E the Mind resides, as has been said, in the common Sensory, like

* Immobility.
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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 valutudinary, lead sedentary 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 Preservation or Integrity of their Intellectual Faculties, or the bodily Organs of them. As the Passions, when slow and continued, relax, unbend, and dissolve the nervous Fibres; so the sudden and violent ones screw up, stretch, and bend them; whereby the Blood and Juices are hurried about with a violent Impetuousity, and all the Secretions are either stopp'd by the Constrictions, Cramps, and Convulsions begot by them, or are precipitated, crude, and unconcocèted, and so beget, or, at least, dispose toward Inflammations, Fevers, or Mortifications. Hatred,
Hatred, for Example. Anger, and Malice, are but Degrees of a Phrensy, and a Phrensy is one kind of a raging Fever. From all which 'tis plain, the violent and sudden Passions are more dangerous to Health, than the slow and continued, as acute Diseases are more destructive than chronic.

§. V. To shew yet farther, the Influence of the Passions on the animal Economy, let us consider the different Constitutions of Men. Those who have very springy, 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 sensual 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 soon provok'd.
hardly possible) in the Decline of Life they pay dearly for the greater bodily Pleasures 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 Resistance. Those excel most in the Labours of the Understanding, or the Intellectual Faculties, retain their Impressions longest, and pursue them farthest; and are most susceptible of the slow and lasting Passions, which secretly consume them, as chronic Diseases do. And, lastly, Those whose Organs of Sensation are (if I may speak so) un-elastic, or entirely callous, resting, for want of Exercise, or any way obstructed, or naturally ill-formed, as they have scarce any Passions at all, or any lively Sensations, and are incapable of lasting Impressions; so they enjoy the firmest Health, and are subject to the fewest Diseases: Such are Idiots, Peasants, and Mechanics, and all those we call Indolent People.

§. VI. We have before shewn, that weak Limbs, and all the bodily Organs, may be strengthened and re-
paired by proper Exercise. And there is no doubt to be made, but the Organs of Sensation, and those the Mind ues in its intellectual Operations, may be likewise improved, strengthened, and perfected by constant Use, and proper Application. And if by Excesses, 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 constantly fuelled, nothing less 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 Tempefts of the Air, can settle and quiet such tumultuous, over-bearing Hurricanes in the Mind, and animal Oeconomy. Without such a Miracle, since the Soul and Body act mutually upon one another, and the Tabernacle of Clay is the weakest Part of the Compound, it must at last be overborne and thrown down.

§. VII. In such a wretched Case I know no Remedy, but to drown all other Passions in that spiritual one of the Love
Love of God: The Reasonableness and Justness of which Proceeding, and (what may seem a Paradox) the Usefulness of it to Health, and its benign Influence on the animal Economy, 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 constantly 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 so many other Attractions, and stifled with such 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 Development 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 Consummation, 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 surrounding Stones, and involved in a Million of other Attractions, cannot fall to the Earth, nor sensibly exert its natural Gravity; no, not so much as to discover there is such a Principle in it; just so, the intelligent Soul, in this her lapsed Estate, being drowned in Sense, chained and fettered by Ignorance and Perverseness, drawn and hurried away by the Devil, the World, and the Flesh, is disabled from exerting this inherent and innate Principle of Re-union; and wants sufficient Light on the Understanding, and a right Turn of the Will, to be put in a Capacity of exercising 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,
as such, can never be loved. And Beauty, or Perfection, is, in Reality, and just Philosophy, nothing but Analogy, Order, or just Proportion. From hence it necessarily 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 since Finite, when compared with Infinite, vanishes quite, or becomes nothing; it follows necessarily, (since 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 superior to our Affections for other Things; or (which is the same 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.

§. VIII. Yet I would not be so understood, as if I condemned all subordinate and duly proportioned Regards for ourselves, and other Objects about us, that are necessary for our Support and Accommodation in our present State. No! There is a just and laudable Self-love, as well as a false and vicious one. If we love ourselves, as we love our Neighbours; if we love ourselves as God loves us; if we love ourselves as we deserve to be loved by the infinitely perfect Being; if we love ourselves with a justly proportioned and duly subordinate Love; that is, if we love ourselves 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
perfect in its Kind, or one that we think so, 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; so all other Objects are to be loved with a Degree of Love proportioned to their Perfection. And since 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 for Himself, and his own infinite Perfection, abstracting from all other Considerations, even that of our own Happiness, 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 themselves, 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 Sensations of sonorous Bodies are altogether harmonious; Sir Isaac Newton has made it plain in Vision; and, no doubt, it is so in all the other Senses): So likewise 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, that
that the Union of the Soul and Body (or Life, the so much coveted Good) consists in a kind of Harmonia præstabilita, (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 Pleasure, i.e. Happiness; 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.

§. IX. As to the second Thing proposed concerning Spiritual Love, however foreign these metaphysical Speculations concerning it may seem, to a Discourse about Health and Long Life; yet, if steadily believed, and their natural Consequences reduced to Practice, they would not only become the most effectual Means to prevent Diseases, 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 should have but one single View in all our Thoughts, Words, and Actions; viz. the promoting and raising 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; since 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, Luxury 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 Affection 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 since our Joy and Happiness will always rise in proportion to our Love; the placing our supreme
preme Love on the Supreme Good, would render us infinitely joyful, serene, calm, and pleased; 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.

1. The Passions have a greater Influence on Health, than most People are aware of.

2. All violent and sudden Passions, dispose to or actually throw People into, acute Diseases; and sometimes the most violent of them bring on sudden Death.

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

4. Therefore the sudden and acute Passions are more dangerous than the slow or chronical.

5. Men
5. **Men of lively Imagination**, and great **Vivacity**, are more liable to the **sudden** and **violent** Passions, and their Effects.

6. **Thoughtful People**, and those of good Understanding, suffer most by the slow and **secretly consuming** Passions.

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

8. **The Diseases** brought on by the Passions 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 **sovereign Remedy** of all **Miseries**, so, in particular, it effectually **prevents** all the bodily **Disorders** the Passions introduce, by keeping the Passions themselves within due Bounds; and, by the unspeakable **Joy**, and
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. MENTION having been so often made of Chronical and sometimes of Acute Distempers; it may be convenient here, to suggest to the Readers as clear an Account of their Nature and Difference, as I possibly can. Acute Distempers, then, are understood such as within some short limited Time have their Periods, either of a perfect Crisis, and subsequent Recovery, or of putting an End to the Distemper and Life both together; and are therefore called
and Long Life. 173
called quick, sharp, or acute Distempers, whose Symptoms are more violent, their Duration shorter, and their Periods more quick, either of sudden Death, or a glorious Victory over the Disease. These are generally limited within Forty Days. And those that run out longer, turn into chronic Distempers, whose Periods are more slow, their Symptoms less severe, and their Duration longer. They too (if new Fuel were not administered to them) would, by the Course of Nature, and the animal Economy, have their Periods, and terminate at the last. The Viscidity of the Juices, and the Flaccidity of the Fibres, would, in a great measure, and to some very tolerable Degree, by proper Remedies, and a due Regimen, be removed, and the Party recover in these, as well as acute Cases. 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 Cases cure themselves, (or rather Nature cures them) and chronic Cases are never cured. But both the Branches of the Reflection are equally false.
false. In the First, Art and Care, judiciously applied, will always alleviate the Symptoms and Suffering, will help on Nature to the Relief she points out, and quicken the Crisis, 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 easily down. But in the last Case, if due Care be had, to follow timeously the Advice of an honest and experienced Physician, a Period certainly may be brought about to most chronicfc Distempers, where the great Viscera are not spoiled and destroyed. The Failing is in the Patient himself, who will not, or cannot, deny himself for a Time sufficient to bring about the Cure. Some chronicDistempers, indeed, are such, 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 Constitution 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 Cautions, laid down in this Treatise, be care-
carefully, steadily, and constantly observed, few chroniclal Distempers but will receive such Relief and Alleviation by them, as to make Life tolerably easy, and free from grievous Sufferings: And, in the mentioned Case, that is all that is left for Art to do. But in other chronical Distempers, 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 Pulse; that of a chronic, To have a slow one. The first will exhaust the Fluids, and wear out the Solids in a short Time; whereas the last will require a longer Time to produce the same Effect. Some chronical Distempers, 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 distinct, but also point out, when acute Distempers have chronical Remissions or Intermis- sions, and when chronical Distempers have acute Fits or Paroxysms.

§. II. Some Persons, who are extremely healthy and sound during their younger
younger Days, about, or soon after, the Meridian of Life, (that is, about Thirty-five or Thirty-six, according to the Observation of an inspired King) fall into chronical Distempers, which cut them off in few Years, or make them miserable all the rest of their Lives. Thus Consumptions prove mortal to some about that Time. Thus Stone and Gravel, Gout and Rheumatism, Scurvy and Dropsy, King's-evil and Skin Diseases, either make their first Appearances, or shew themselves in their true Type, about this Time of Life. The Reason is, While the Juices are sweet, sufficiently thin and fluid, but especially while the solid Organs, the Membranes and Fibres, are yet but unfolding, stretching and drawing out to their full Dimensions; any Acrimony, Sharpness, or corroding Humour, can affect them no other way, than by making them vibrate, and so extend themselves farther and farther. For as Pain, so these sharp Salts, by their Twitching and Irritation on the tender Fibres, make them only contract, and so draw at both Extremities, and thereby unfold and extend themselves farther. So while the original Foldings and Complications of the
the Solids are not yet quite extended, this Irritation serves 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 themselves to their utmost Acrimony, to corrupt and putrefy the Juices, and also some more Time to wear out, to obstruct and break the great Organs, and their smaller capillary Vessels: 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 lighter, and more superficial, and whose Complexion is stronger, and more hardy, hold out longer. But the Generality suffer first, eminently, about the Meridian of Life. Hence the common Observation of those that die of a genuine Consumption, that they begin to feel it first before Thirty-six.

§. IV. There is no chronical Distemper whatsoever more universal, more ob-
flinate, and more fatal in Britain, than the Scurvy, taken in its general Extent. Scarcely any one chronicil Distemper but owes its Origin to a scorbucic Cachexy, or is so complicated with it, that it furnishes its most cruel and most obstinate Symptoms. To it we owe all the Dropsies that happen after the Meridian of Life, all Diabetes, Asthmas, Consumptions of several Kinds, many Sorts of Cories and Diarrhoeas, 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 Distempers whatsoever. And what a plentiful Source of Miseries these last are, the Afflicted best can tell. And scarce any one chronicil 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 so much in animal Food, and strong fermenting Li-
quors, in contemplative Studies, and sedentary 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 Seasons thence arising. I have had many Occasions to shew, how such Causes must necessarily and naturally produce such Effects. I will here only touch the Matter slightly, 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 small Vessels. Their larger Bulk, and greater Acrimony, thence arising, must increase the Viscidity of the Fluids, by breaking the Blood-globules, 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 stopp’d at every obstructed Gland, and capillary Vessel, and an universal Disorder produced in the whole animal Economy. And this Disorder will operate, and shew itself, in Symptoms special and particular,
according to the special and particular Make and Conformation of the Parts, the Weakness or the Strength of the Organs, the particular Mismanagements, and precise 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 serous Part of the Blood too thick and gleasy, 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 so fruitful of Variety of Mischiefs. And its arising from the Climate and Customs of the People, is the Reason why chronical Distempers are so 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 Inhabitants, but universally cure those of our
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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 scarce any one, especially those of the better Sort, but becomes crazy, and suffers under some chronical Distemper or other, before they arrive at old Age. The same Reason is to be assigned for the Frequency of Self-murders here, in England especially, beyond any other Country. For few have Grace and Resignation enough, to suffer patiently the lasting Pains of a chronical Distemper, or the yet more torturing and crucifying Anguish of a perpetual Despiritedness; though I have observed generally, and have good Reason to conclude universally, That all Self-murderers are first distracted and distemper'd in their intellectual Faculties. Notwithstanding the Diffusiveness and Universality of this Disease, so that scarce a single Individual of the better Sort is altogether free from it; yet I never once in my Life saw it totally extirpated in those who had it to any Degree, so as to be entirely free from it all the rest of their Lives after; but

N 3
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 so entirely contrary and opposite to the natural Habits and Customs, and the universal Bent and Appetites, of the Inhabitants of this island, that it becomes a kind of perpetual Self-denial 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 less than a very moderate Use of animal Food, and that of the Kind which abounds least in urinous Salt; (as most certainly the young and the lighter-coloured do) and a more moderate Use of Spirituous Liquors, due Labour and Exercise, 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 early; before, or soon.
soon after, the Meridian of Life; or else there will remain too little Oil in the Lamp, the Spirits will sink too far, ever to be recovered again; and the remaining Part of Life will be too short for so total a Change as must be made: So that those who suffer 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 Constitution, 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 easy; 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 Reasons formerly given, (because they are young, or the Nourishment appointed by Nature for young Vegetables; for the Earth is only a proper Nest or Matrix for them; and the Sun's Heat serves them instead of Incubation) but, upon Trial and Examination,
mination*, they yield none, being too light and thin to calcine and incinerate, and the Salts too volatile (and, consequently, 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 so enveloped, that they cannot unite to form a Spirit; and are so sheathed, by particular Coats of the Materials of the Vegetable, that they can scarce 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, (such 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 Consumption of the Gums by scorbutic Salts; cure any cutaneous Foulnesses or Eruptions, and even any spreading Ulcer, if it is not scrophulous, when no

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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 themselves. And, as I have elsewhere observed, there is scarce a thin, consumptive, hysterical, or hypochondriac, and weakly Constitution in England, which has not for its Parent, a latent or manifest scorbatic Cachexy, excepting that which arises from a Scrofula. From the Whole we may gather, how much a proper Regimen of Diet, and due Exercise, with the other Helps and Remedies already mentioned in this Treatise, is able to do in most British chronical Distempers.

§. IV. Having had so often Occasion to speak of weak and relaxed Nerves, it will not be amiss to suggest some of the outward and most sensible Signs and Characters, whereby it may be manifest, whether one's Self, or any particular Person 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 twisted Cat-
guts or Hairs) whose one Extremity is
terminated at the common Sensory in the
Brain, where the Soul is supposed to
reside; the other is interwoven into
every Point of the Scarf-skin, the Mem-
branes, the Coats of the Vessels, the
Muscles, and the other sensible Solids of
the Body, in order to convey the Motions,
Actions, Vibrations, or Impulses, of out-
ward Objects to the Soul. These Threads
or Filaments are highly elastic or springy,
as we may see from their hardened Sub-
stances, such as Whalebone, Ivory, Horn,
and Cartilages, which are more eminently
so, than any other Bodies known. Some
Persons have their Fibres very quick,
readily vibrating, highly springy and
elastic, so as to tremble and shake violent-
ly, by the least Impulse. Others have
more rigid, firm, and stretched Fibres,
which yield not but to strong Impress-
sions, and move slowly, but move for
a long time. Lastly, There are those
who have weak, loose, slender, and relaxed
Fibres, which, though easily moved,
and yielding to the weakest Impulse,
yet communicate only imperfect, languid,
and faint Impressions and Vibrations to
the
and Long Life. 187

the Soul, and have all their other animal Functions of the same languishing Nature. And 'tis of these last, I have been all along speaking: And we may readily discover them, by these outward 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 seems to be some of the fleshy Fibres, only lengthened outwards, and hardened. At least, like the Fibres, they consist 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, so, generally, the Fibres of the Body are.

2. Those of the fairest Hair, are of the loosest Fibres, (other Things being equal) because the Fairest are more rare, porous, and fungous: and because Bodies of the lighter Colours consist of smaller Parts, than those of the more flaming Colours; as has been formerly observed. 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, and consequently stronger; so must those be:
And, on the contrary, 4. Soft, yielding, pappy Flesh, is a sure Symptom of loose 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, constantly indicates a weaker and more relaxed State of Fibres, than a ruddy, fresh, dark-fallow, 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-soaked 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 whatsoever; are or become of loose, 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 Diarhœa, have recovered of
and Long Life. 189

a Fever; and those of the Sex who have purified longer or more than is usual; 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 slow and interrupted Circulation and Perspiration; which manifests a weak Spring in the Fibres of the Coats of the Vessels, the Fibres of the Muscles, and a Weakness of the Spring of the Scales of the Scarf-skin.

§. V. On this Occasion of rehearsing the Signs of weak Nerves, I cannot omit apprising 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 destroyed, and they themselves exposed to Drofies or Consumptions, or (which is worse than either) perpetual Lowness of Spirits, Vapours, and other hysterick Disorders. And, by this Misfortune alone, a considerable Part of the better Sort here in England perish and are lost. Nature has formed the Generality of the Sex of a soft, slender, and delicate Make. Want of due Exercise, a full Table, indiscreet Nurses, over-fond Mothers, and hereditary Sharpnesses, make them much more so. And if, by Neglect or Accident, they once begin to miscarry, every first Miscarriage paves the Way for a second, and a third, and so 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 secured 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 Dissolution 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 considering the Constitution. Bleeding may do well enough in sanguine, robust, and plethoric Constitutions: But 'tis Death, and certain Ruin, to those of slender and weak Nerves; and the surest Way to cause the Miscarriage 'tis designed to prevent, by relaxing the nervous Fibres; which Bleeding does as certainly, as it lessens the Quantity of the Blood. The most effectual Method I have ever found to prevent such Misfortunes, is, To order those in such 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, easily-digested Diet, especially of the farinaceous Vegetables, and Milk-meats; to strengthen their Bowels with Diascordium, and toasted Rhubarb, if they become too slippery; to air them once or twice a Day, in a Coach or Chair; and to keep them cheerful, and in good Humour, as much as may
may be. This Method will scarce ever fail, unless a latent Scrofula, or some other hereditary Sharpnesses in their Juices, destroy 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 Seasons of the Year. I have elsewhere * observed, that such Constitutions begin to sink, 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 Midsummer; and hold it out so 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 less 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-
And Long Life.

Mentioned: 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 Exercise and Business contribute. I should advise such, 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 concotive Powers of weak Persons, and those of relaxed Nerves, rise and fortify gradually, as these stronger Foods come in Season. By Season, I mean not, those earlier Days, that Luxury in the

O Buyers,
Buyers, and Avarice in the Sellers, about London, have forced the several 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 lessening the Quantity, and lowering the Quality, of their Food, as the Seasons indicate, and Providence provides the proper Food in greatest Plenty and Perfection: By which they will preserve the Balance of their Health pretty near equal all the Year round; have the lightest and least Food, when their concotive Powers are least, and their nervous Fibres weakest; and rise in the Food, in proportion as these rise. Add to these, 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 obstinate Exercise
Exercise 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 instigate, that People ought always to go well-clothed. Whatever may be in this, as to Persons that drink hard, and require a plentiful Discharge by the Skin, those who are sober, or who would render themselves 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 Custom of wearing Flanel is almost as bad as a Diabetes: Nothing

* q. d. Unwearied Exercise will overcome any chronical Distemper.

O 2 can
can enfeeble and drain weak and tender Persons more. To make this clear, we must distinguish between 

Perpiration and Sweating; which differs as widely, as the daily natural Emptying our Bowels, and a Looseness or Diarrhoea. And, as nobody in their Senses, much less the Tender and Weakly, would endeavour to encourage this last; no more ought they that other of Sweating. For as promoting slippery Bowels would always keep the Fibres of the alimentary Passages relaxed; so would perpetual Sweating, those of the Skin. And as the Moisture and Damps that Flannel perpetually keeps the Skin in, and its growing so readily dirty, shews what a Flux of Perpiration it promotes there; so the perpetual Friction produced by it, gives the Reason. If one lays on a superfluous Load of strong Liquors, 'tis happy for him Nature discharges the Ocean any-how; for he had better sweat, than burn in a Fever. But for temperate, tender, and sickly Persons, 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 *Tschrinhaus, 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 preserve their Health; the lighter and fewer their Cloaths are, both by Night and by Day, in Summer and Winter, the harder 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.
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 frothy 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.

§. 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 shaving 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 lessen the whole Mass; but, if encouraged, will make that Evacuation more ample and full. The more and oftener the Hair is shaven, the faster and thicker it will grow: So that thus shaving the Head and Face frequently, will be like an Issue, 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 Morphea 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 same do washing and scraping the Feet, and paring their Nails, to the lower. We know by the Tic-
klikeness 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 surer 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 small Vessels, 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 Persons 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 seemingly trifling Observations towards Health: But 'tis in this Case, 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, whose Studies or Profession oblige them to read or write much, ought, as far as they possibly can, to stand in an erect Posture, bending their Head and Breast as little as may be, leaning only on a sloping Desk, and continuing their Exercises in that Posture, till they grow weary; then rest, and be at it again. Custom and Practice, obstinately persisted 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 some, if not many, of the Vessels of the Body, and so 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 Sleepiness, and Disability to Motion in the Limbs, till the Blood and Spirits, by a proper Posture, get a free Admittance into them. From this, also, there ensues an unequable and subsultory Circulation of the Juices, and an unequable Secretion in the Glands; and, consequently, an unequal Growth, Strength,
Strength, and Vigour, of the Organs and Parts: Which is the Cause of Rickets in Children; careless Nurses neglecting to rock, dandle, and toss them sufficiently, that the Circulation of the Juices and Spirits may be equally promoted every-where. And to avoid this Inconveniency, seems 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 Stomach, which must necessarily weaken their Functions; and these are commonly the Organs which first decay in Clerks and Under-Secretaries. And hanging down the Head, is the ready way to raise Fumes and Vapours to it; whereby such will be exposed to Lowness of Spirits, and, perhaps, Consumptions; all which are, in a great measure, avoided by an erect Posture: For thereby all the Organs will be in their natural Situation. Many of the Muscles will be in Action, and so press on the Blood-vessels, to facilitate the Circulation. But chiefly, by this erect Posture, the Juices will have the Advantage of
of their own Gravity, to descend with the greater Velocity, to warm and cherish the lower Parts, which are remotest from the Source of Motion; and the greater Evacuations will be more readily promoted, and thereby preserve 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 consult, ought to do them standing, or walking, which would relieve both Body and Mind.

§. X. The Unwieldy, Fat, and Overgrown, besides 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 so great Use, to preserve and lengthen the Lives of such, 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 same Litter were fed upon an equal Quantity of Milk; only, to one of them, the Milk was mix'd with the same 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. Dropsties (at least Anasarcaes) 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 Persons are most subject to. Therefore, such ought to avoid Drink, as those do, who have the * Hydrophobia, or are bit by a mad Dog. Which they may easily 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 dressed 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 concotive Powers weak: And consequently, they must be subjected to, and suffer by, the weakest Injuries of the Weather. Therefore I advise such 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 raise, 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 design'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 Muscles and Nerves, into Cartilages and Tendons. And all the Solids lose their Elasticity, and turn, in a great measure, into that Earth they are going to be dissolved into: So that the Solids wanting Elasticity, Exercise can do but little to shake off the Load. It will therefore be enough for such, to air themselves when the Sun 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 preserve the Remains of their Senses to the very last. By this alone, Cornaro lengthened out his Days, and preserved his Senses, in a great measure, intire to a hundred Tears. He gradually lessened 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-
Measure, either of Time, or Quantity of Food, they ought to diminish. But this, I think, they ought to consider, That since '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 scarce 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 Senses, those Aches and Pains, and all that dismal and black Train of Miseries, that wait on Long Life, are mostly owing; which, by a discreet and timeous lessening their Diet, might, in a great measure, be prevented.

§. XII. There is no Mistake 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
their Inconstancy, and Impatience of being confined in their Appetites, makes them either throw off all Remedies and Restraints in Despair, and give themselves 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 surprising, that reasonable Men can imagine, that, in any small Time, any possible Methods or Medicines should cure, or even sensibly relieve, a Distemper, 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 Excesses, or an indiscreet Regimen. I know no fitter Similitude of the Case, than the annual Income of an Estate just sufficient to keep one in decent Necessaries, and due Plenty and Cleanliness. If one that has such an Estate, run out every Year, for Ten or Twenty Years, and then set 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 Estate to its first Condition? No! he must labour, abstain, and manage, for several Years; and the Time required will be always in a Proportion compounded of the Rate of his former Expences, and his present 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 overpending. If he gives over Saving, he must at last most certainly starve, or go to Gaol; and if he begins to save in due Time, he will certainly retrieve all; but the Whole consists in Labour and Saving for a due Time. Excesses and an undue Regimen, is running out of one's Health; which, without a proper Remedy, as Labour and Abstinence, will necessarily bring a Man to Diseases 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, 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, Oppression 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 grosser 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 say) and the Phlegm arises and loads the alimentary Passages; Bitters, Aromatics, and Steel, varied, and prescribed, accord-
ing to the Strength of the Patient, and one Kind as another has lost 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 some Months Perseverance, find ourselves just where we began. New Doctors must be had; and they must either be cashier'd, if they pursue the same 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 so to do, till it has dephlegmated the whole Mass; and every new Vomit will make room for another; and there is no other Remedy as long as there
there is any viscid Humour remaining, nor can the Decline of the Disease be discover'd so certainly by any thing, as by the Lessening of the Quantity concerned, and the Lengthening of the Intervals: As, in a Vessel of Oil and Water incorporated, a sure way to separate 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 swim, if you but give it Time to extricate itself from the Embraces of the Water; and then you may separate the viscid Mixture entirely. No great Purpose in Life was ever brought about, but by Time and Patience, and by constantly pursuing the most natural and best approved Means that lead towards that End. Nature works not by sudden Jumps and Starts, but goes on steadily, fortémente et doucement, and 'tis Nature that is the true Physician: Art only removes Obstacles, checks Violences, and greatly solicits Nature the Way she tends. This requires Time and Patience. Tempus edax Rerum. It most certainly consumes chronical Diseases, if not fuelled and fed: Nothing else can.

§. XIII.
§. XIII. In fine, Providence has been kind and gracious to us beyond all Expressing, 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 insupportable, we have always ready at hand a Medicine, which is not only a present Relief, but, I may say, a standing and constant Miracle. Those only who have wanted it most, and have felt its friendly and kind Help in their Tortures, can best tell its wonderful Effects, and the great Goodness of Him who has bestowed it on us. I mean Opium, and its Solution Laudanum; which, when properly prescribed, 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 Observations I have made in the preceding Treatise. 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 to be preserved for Food; viz. hardens, stiffens, and contracts them. The Fibres of live Animals being contractile, tonic, and springy, when a hard pointed Body enters them, (which is the Case in all bodily Pain) the Parts, by their contractile Nature, fly from, recede, and shun, as much as possibly they can, the wound- ing Instrument. 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 sometimes Fevers, produced by intense acute Pain. Pleasure, on the contrary, relaxes the Fibres, by a gentle, soft, and bland, or (as the Mathematicians speak) a commensurate and harmonious Touch. It acts on the Fibres, as two unison and concordant musical Instruments act on one another; and by stroking, softening, and smoothing, comes, at last, entirely to relax and unbend them. The Parts of the Fibres run after, follow and pursue, and at last break their Union in some Degree, to reach such a demulcent Touch. Some Persons have had the Faculty to allay Pain, by gently smoothing
ing the afflicted Part with their Hand; which, in some measure, was true of the Touching Doctor. Soft Oils, and emollient Herbs, with gentle Warmth, by relaxing the crisped Fibres, will allay Pain. Soft Beds and Cloaths, and tepid Baths, will relax and weaken the whole Habit. Now since Pain so certainly crisps up, contracts and contracts animal Fibres, and since 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 causes such plentiful Sweating, especially if joined with Volatiles, and promoted with plentiful drinking small, warm Liquors. This it can do only by relaxing the Fibres of the Skin, and perspiratory Glands. 2. Nothing so much palls the Appetite, and weakens the first Digestions, as the frequent Use of Opiates; insomuch, that most People, after a liberal Dose of them, seldom fail to reach,
reach, and never care for Food for a considerable Time after, till their Effects are wrought off; which are the constant Symptoms of a relaxed Stomach and Guts. 3. Nothing so much promotes the Eruption of the Small-pox and Measles, the Expulsion of the Stone and Foetus, the Monthly and the After-birth Purifications of the Sex, as Opiates; insomuch that, in difficult Births, they are now the only Resource of the Mid-wifc Physicians; 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, Convulsions, and Hysteric Fits, so suddenly and certainly as Opiates do. And every one knows these arise from violent Contractions, and crisping up, of the muscular Fibres. All these, and many more such Effects, Opiates produce, by unbending, loosening, and relaxing those Fibres violent and acute Pain had contracted and contracted, and by giving a Respite and Reprieve from its Tortures, and
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and thereby allowing Nature (the only true Physician) to go undisturbed about its own Work. The Way it stops Purging, and cures a Diarrhoea, I take to be, by carrying off the sharp and watry Humours in the Bowels by Perspiration, which Opium exceedingly promotes; by quieting those Spasms and Convulsions, and allaying those Stimulations excited by Purging; and settling and calming the Violence of the Peristaltic Motion of the Guts, which hurried off their Contents. I 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 say, Where-ever Pain is acute, intolerable, and past enduring; where it may endanger Convulsions, a Fever, or Inflammation; after premising the proper universal Evacuations, (such as Bleeding, Blistering, Cupping, Purging, or Glystering, as the Case requires, or will bear) Opiates then will most certainly relieve, and may be safely administered. If the Case is attended with Vomiting, solid Opium will do best; because it will be in a smaller Volume, and will not be so readily rejected. If speedy Relief be required where there is
is no Vomiting, then Laudanum will disperse soonest through the Habit; because Liquid, and joined with a spirituous Vehicle, will soonest effect the Design, raise the oppressed Spirits more, and penetrate deeper and quicker. In common Cases, a vinous Vehicle will be sufficient; because Opium is best dissolved in Wine, to make Laudanum. There are Four Cases, in which 'tis absolutely and eminently necessary; the Colic; the Stone; the hard Labours, After-birth, and Monthly flagitious Purifications of the Sex, especially if attended with violent Pain, as is common in such Cases; and in the Gout and Rheumatism. In the First, it ought always to be given with some Stomach-purge, as Elixir Salutis, or Tincture of Hera 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 Case an artificial Vomit is to be premised, if Circumstances forbid it not. In the Stone, it ought to be given with Oil of sweet Almonds, or in some soft Emulsion, to lubricate the Parts. In the Two last Cases, it ought always to be
be given with proper Volatiles, Anti-hysteries, 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 entire Stop is to be put to its Administration. And thus the End will be obtained, without any Fear of Over-dosing. And the Truth is, there is less Hazard of that, than Persons 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 Drains of Solid, that is, near six 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 some time, and that he dozed almost a Month under it) yet did well, and, for aught I know, is alive still,
still, though it be many Years since. If the preceding Dose be rejected by Vomiting, about a third Part may be supposed to stay; and then the subsequent Doses may be proportioned accordingly. The Difference of Constitutions will make no great Alteration here, since very weak Persons seldom suffer very violent Pain, which is the only Case I am here considering.

§. XIV. To draw towards a Conclusion: The Grand Secret, and sole Mean, of Long Life, is, To keep the Blood and Juices in a due State of Thinness and Fluidity; whereby they may be able to make those Rounds and Circulations through the animal Fibres, wherein Life and Health consist, 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 necessary. As, in the greater World, the * Quantity of the Fluids is daily lessening and decreasing; so in our lesser World, after

* See Sir Isaac Newton's Princip.
a limited Time, the Appetite and Concoctions failing, the Fluids are lessened and spent on the continual Repairs of the Solids; and thereby lose their Nature, and become firm and hard. For by insinuating themselves into all the Pores of the Solids, and the Interfaces of their Parts, and strewing and damming up the small Vessels, which carry in Nourishment to the internal Substance of the Solids, and so depriving them of their Moisture, and lubricating Juices, these Solids come at last to harden, stiffen, and fix; and thereby lose their Elasticity and Springiness. Here the Process is mechanical and necessary. Age and Time, by weakening the Concoctions, impairing the natural Heat, which consists in a brisk and extended Circulation of the Juices, by the turning those Juices into solid Substances, and thereby fixing and hardening these Solids, and depriving them of their due Elasticity, the Fluids circulate with less Velocity and Force, and seldom reach the Extremities and smallest Vessels; but pass through the more patent and larger Vessels, by their biggest lateral Branches. And if with all these unavoidable and irremediable Circum-
Circumstances, both the nutritious and serous Part of the Blood, and the globular, become viscid, thick, and gleyy, 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 such, if they are not corrupted to an extreme Degree, so that the remaining Part of Life be not too short for such 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 less Force, and with less Resistance, (i. e. Pain) but also they will preserve, 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,
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For, on the contrary, the thinnest and most fluid Blood is the richest, that is, the best Blood (if rich and good mean the same Thing). For in hydropical, anaemic, cachectic, and scorbutic Persons, both the serous and globular Part of the Blood is thick, gleasy, and acrimonious, so that it can neither get through the small Veysels, nor can it be long contained in them; but corrodes and frets them, and so falls (at least, the thinnest Part of it) into the Cavities, and begets a Dropsty; or stops in and obstructs these small Veysels, and so becomes an Ana-
sarca or Scurvy. In all which Cases, the serous Part is overloaded with urinous Salts, and becomes a perfect Lixivium; so that, by its Grossness, it cannot run into Globules, to facilitate the Circulation through the Capillaries, (for these small elastic Globules, by turning oval or oblong, wonderfully facilitate the Circulation of the Juices through the small Passages) and the red or glo-

bular 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
called thin; but it can in no Sense be called good Blood. The thinnest and most fluid Blood is ever to be look'd upon as the best Blood as consisting of finest and smallest Parts; which most readily runs into red Globules, and most easily circulates through the capillary Vessels, which is the most solid Foundation of good Health, and Long Life. Now as nothing but indulging in strong high Foods, which the concoctive Powers cannot break and divide into Parts small enough to run into red Globules, or circulate through the small Vessels, but overstock them with urinous Salts, which run into Clusters, and first obstruct, and afterwards break, these small Vessels, and in wallowing in strong Liquors, which parboil and eat out the tender and delicate Fibres of the Solids; I say, as nothing but such an Indulgence, and such Excesses, long continued, and obstinately persisted in, can beget such a State of the Fluids and Solids, and so bring on a Cachexy, which may end in a Dropsy, or some other fatal chronical Distemper, according to the Habits, and particular Make and Constitution, of the Party, (for no Person 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 solidly and fully effectuate the contrary State of the Blood and Juices, to render them thin, sweet, 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, gley, and foul Mixtures, that has only a small Inlet and Outlet, but by pouring into it a thin, clear, insipid Fluid, and by shaking it often and much. It is much the same with an animal Body. No voluptuous nor lazy Person, unless he has had an original Constitution of Brass, was ever a long Liver. And even then, as his Life has been more Misery and Pain, than ever a sober Galley-slave 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 Q long,
long, and without much Pain, have lived abstemiously, poor, and meagre. Cornaro prolonged his Life, and preserved his Senses, by almost starving in his latter Days; and some others have done the like. They have, indeed, thereby, in some measure, weakened their natural Strength, and qualified the Fire and Flux of their Spirits: But they have preserved their Senses, weakened their Pains, prolonged their Days, and procured themselves 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 Treatise, 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 rest 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.
and Long Life. 227


1. Chronical Diseases last long, wear out the Constitution leisurely, and are accompanied with a slow Pulse; whereas acute ones soon terminate either in Death or Recovery, and are joined with a quick Pulse.

2. The Scurvy is the Root of most chronical Diseases 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; soft Flesh; a white, fair, blanched, or ahen-coloured Complexion; a fair, corpulent, phlegmatic, cold Constitution; Chilliness, especially in the Feet; a Readiness 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 subject to Miscarriages. Their Danger is increased.
increased by high Living, and indiscreeet 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 concocitive 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 several Seasons.

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, should 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. The Fat, Unwieldy, and Overgrown, ought to avoid all manner of Drink, strong and small, and even Water itself, as much as possible. And if their Food be Vegetables, and young Animals, they will have little Occasion for any Liquor.

10. The Aged should (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 chronic Diseases 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 chronic Diseases, to be quickly cured.

12. In all acute and vehement Pain, Opium is the sovereign Relief, particularly in the Colic, Stone, Gout, Rheumatism, and hard Labour of Women. It operates by relaxing and unbending the Fibres, over-stretched and crisped up by Pain.
13. The great Secret of Health and Long Life lies in keeping the Blood (and, consequently, the other Juices of the Body) in a due Degree of Fluidity.

CONCLUSION.

To conclude; without taking the Benefit of Revelation, which, in a Sense 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, Naturamque 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 say, 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, Passions, and Desires, they followed the uncorrupted Dictates of Nature, and neither spurred her on beyond her Craving, nor too violently restrained 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 Passions 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, so 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 say, had it not been for these Evils, there never had happen'd so much Sickness, Pain, and Misery, so unhappy Lives, and such 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 say, Religion, been followed, we might have passed our Days in Indolence (at least, from chroniclal Diftem-
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 Sensuality, and the Bounces of a false and ignorant Security.

FINIS.