An essay of the true nature and due method of treating the gout. Written for the use of Richard Tennison, Esq.; together with an account of the nature and quality of Bath waters, the manner of using them, and the diseases in which they are proper: as also, of the nature and cure of most chronical distempers, not published before / [George Cheyne].

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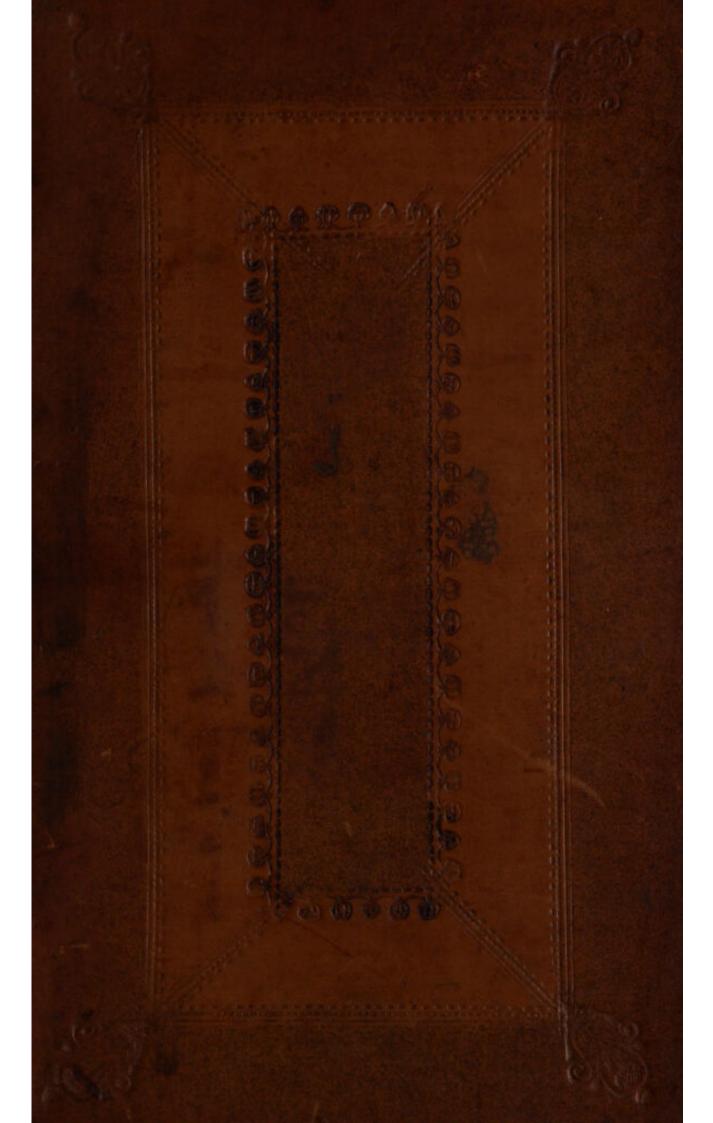
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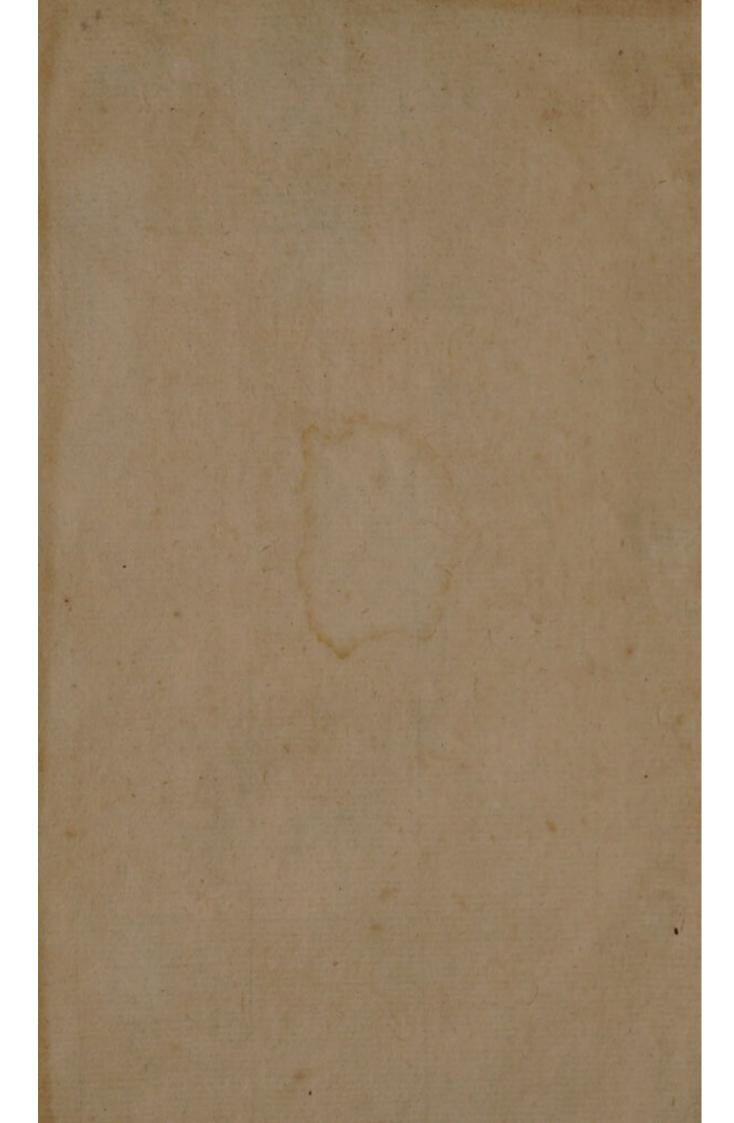
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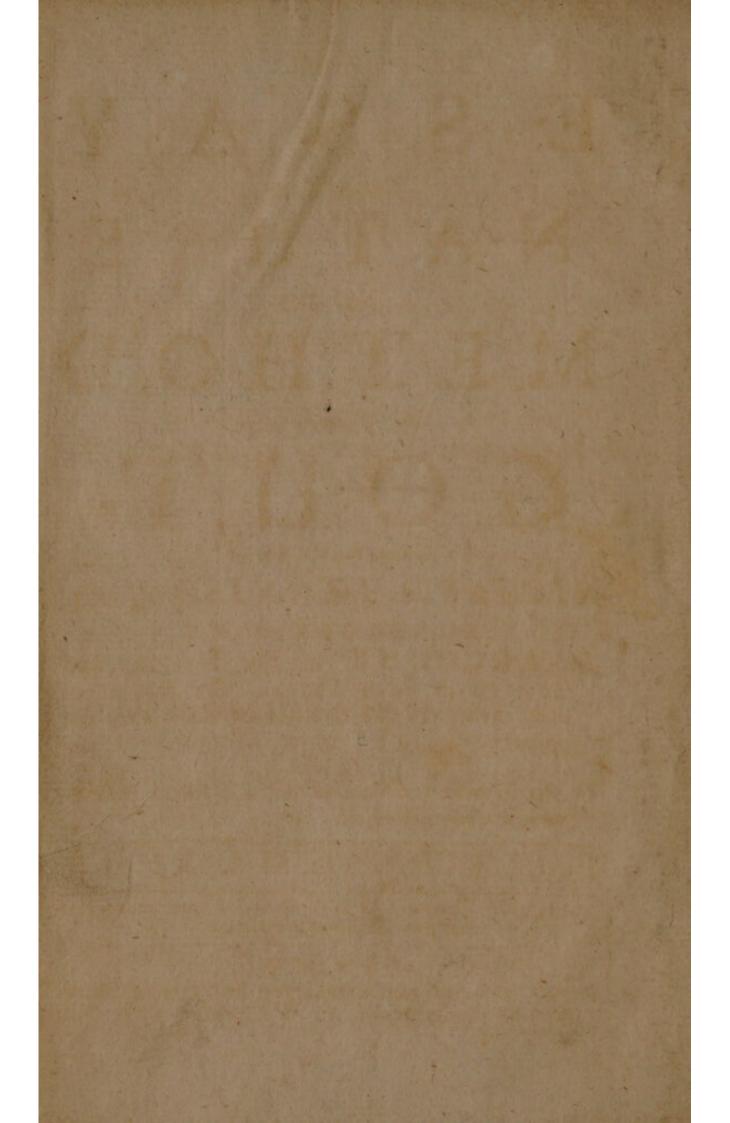
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## ESSAY

Of the True

### NATURE

And Due

## METHOD

Of Treating the

# GOUT,

Written for the Use of

### RICHARD TENNISON, Efq;

TOGETHER WITH

An ACCOUNT of the NATURE and QUALITY of BATH-WATERS, the Manner of using them, and the Diseases in which they are proper:

As also,

Of the Nature and Cure of most Chronical Distempers, not publish'd before.

### By GEO. CHETNE, M. D. & F. R. S.

The FOURTH EDITION, Revis'd, Corrected, and Enlarg'd to

#### LONDON:

Printed for G. STRAHAN, at the Golden Ball, over against the Royal Exchange in Cornhill; and H. HAMMOND, at the Bath, M.DCC, XXII.

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And Due

METHOD

Of Treating the

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BY GEO OHEINE, M D & F. R. S

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### ADVERTISEMENT

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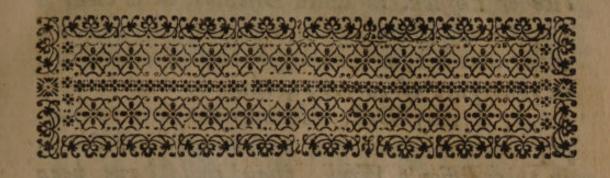
## READER.

originally intended for a private Paper of Instructions ons to the Gentleman, whose Name it bears, to direct Him how to manage himself under the Gout. It is, indeed, an Abstract of a larger one, on the same Subject, which has lain by me these seven Years; which, yet, I have not had Leisure or Humour to finish. Several Copies of this having got Abroad, and the pitiful Condescendence of Pyrating Booksellers, even to A 2

fuch Trifles as these, have constrain'd me to let it come out in Print, as it is, to prevent its coming out from them. The Gentlemen of the Profession may easily perceive, by the Grossness of the Philosophy, and the low Detail of the Pharmacy, it was not defign'd for them. If any shall think fit to dispute or criticise on the Doctrine here laid down, they may do it fecurely, as if the Author were as much dead, as these his Labours will shortly be: I hope I know the Value of Time and Pains, and the Vanity of all Human Speculations better, than to employ them in defending fuch Trifles. All I undertake for them, is, That the Facts may be depended upon for their Truth: And the Method and Medicines for their Efficacy, towards the End, in the Circumstances propos'd. If any Person under them, shall either amuse himself, by reading this Paper; or lighten his Pain, by following its Directions, I shall have obtain'd all I propos'd by it.

As to the Account of the Bath Waters given here, it came naturally in the way of my Subject; and is fuch as the Observations I have made suggested to me. I scarce know, and have taken no Notice of what others may have written or observ'd on these Waters; nor, indeed, had it been possible for me, in my present Situation, being without my Books, and confin'd to Bounds, by the Nature of my Defign. I have often observ'd, with Admiration, the Wisdom and Goodness of Providence, in furnishing so wonderful an Antidote, to almost all the Chronical Distempers of an English Constitution and Climate, which are chiefly owing to Errors of Diet, or rather, as a Sacred Writer expresses it, To Idleness and Fulness of Bread. The Rankness of the Soil; the Richness of the Provisions; the living so much on Flesh Meats; the Inconstancy of the Weather, and the indulging in sedentary Amusements, or speculative Studies, directly leading there-





### POSTSCRIPT

TOTHE

## PREFACE.

Scholia, to illustrate and confirm the Doctrine, and Observations laid down in the Former. Some further Considerations about the Use, and Virtues of Bathing and Bath Waters, and a good many Restections, and Hints about the Nature and Cure of Chronical Distempers of several kinds, that have any Relation to the Gout, or came naturally in my Way, in treating those others. Physicians know how close a Connection, and near an Alliance Chronical Diseases have to one another. The truly learned \* Dr. Friend (and his Fellow-Labourers) have set the Prac-

<sup>\*</sup> Vide Dr. Friend, in Hippocrat. de morbis populariter grassant. Item Epistol. de febre secundaria in variolis. Item Lommius de febribus, Edit. Londin.

Postscript to the Preface.

tice of Physick, in acute Diseases, in so clear a Light, and have so Demonstratively supply'd what was left, as wanting, by their Predecessors, in that part of our Art; that he must be very Lazy, or very Dull, who may not form to himfelf clearer Indications, and more distinct Views in this difficult Work, than could have been readily fram'd till now. And the worthy, and learned, the President (Sir Hans Sloan) the Censors, and other Fellows of the College imployd, have lately supply'd the World with a Body of Pharmacy, and Forms for Shop-Medicines, the most Simple, Neat, Judicious, and Copious, that ever yet appear'd in Print; which will exceedingly promote the Practice of Physick in general. But Chronical Cases fly great Towns, their Hurry and Smoak, and rejoyce in Country Air, Diet, and Exercise; and generally, all those who suffer under them, at one time or other, land here at Bath as the last Resource. In about twenty Years Experience, I could not well pass over so many Cases as I have feen, without Reflections and Observations on them. A few of those I have communicated to the Publick, with the greatest Plainness and Sincerity I could, without (I hope) any other View, but that of being somehow useful in my low Station. If but a single Person receive Benefit by them, I shall undisturbed, and with much Tranquility, stand all their other Consequences.



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The Method of treating Nervous Gouts, and other Nervous

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AN

# ESSAY

Of the True

## NATURE

And Due

### METHOD

Of Treating the

## GOUT, Oc.

I. Efigning this Paper for the Infruction and Relief of my particular Friend, I shall only make such Observations, as directly tend to that Purpose;

Passing by all Theories of the

Distemper, as far as is consistent with giving the Reason of my Opinions. For after having

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laid down two Propositions (which will be found the Principles of my Reasoning through this Discourse) I proceed to the Observations themselves.

II. Prop. 1. Of two Men having all other Circumstances alike, as near as may be; Of the same Parents; Born Healthy; Of the same Stature, Complexion, Diet, Air, Exercise, &c. It seems to me impossible to assign a solid Reafon, why the One should be afflicted with the Gout, the Other be absolutely free from it, but this, That the \* smallest Vessels of the Gouty Person must be in their natural & Conformation narrower and more | ftiff, than those of the Other, who is free from the Gout, in respect of their common Stature and Size. For thereby the Crude and Gross Humours, which are confin'd, or pass with Pain, in the Gouty Person, will easily see off by Perspiration, and the other Drains of the Body, in the Person free from the Gout.

III. Scholium. This Proposition is evident from hence, That the Gout seldom seizes on People till towards the beginning of the Decline of Life, when the Solids having attain'd their utmost Dimensions, and being stretch'd out to the full Length they have to

reach, become in some Measure stiffen'd, at this their full Stretch : (So that in the greater Vessels, by long Age, they become Bony) and the Juices are render'd Gross and Glewy, whereby the Perspiration (for both Reasons) is confiderably lessen'd and impair'd. Now, though in this Account of the Cause of the Gout, I lay little Stress on the Relative Smallness of the Least Vessels, but am rather inclin'd to attribute it chiefly to their greater Stiffness, and Tension: Yet is it Demonstrable, that in the same Springy Tube, full of the same Liquor, moving by one Constant, Original Force, its Diameter is less in a Contracted, than a Relaxed State; though the Velocity of the included Fluid will be greater in the First than in the Second, because of the greater Resistance and Springyness of the Contracted, than of the Relaxed Tube. And this is one Reason, why Women are less subject to the Gout than Men; because of the known greater Laxity of their Fibres. And it is evident from Observation, as well as Philosophy, that Healthy Fat Persons have a less Quantity of Blood, and smaller Vessels, than Lean Persons, in Proportion to their Bulks, as every Surgeon can attest. Their Vessels are more compressed by a Load of Flesh; Fat Persons are less weildy, and so are less able to stretch out their Vessels to their utmost Limits: But principally because that Oily Substance called Fat, can never be so plentifully separated in the greater, as in B 2

the proportionably lesser Vessels, which have run out to the greatest Length, as is evident from the known Laws of Secretion: Even though it be certain that Lean Persons can eat and digest a great deal more, in respect of their Bulk, than Fat People; which should more plentifully supply them with Materials for Fatning, were they not carry'd off by larger Vessels, and more liberal Evacuations.

IV. Prop. 2. The Cause of an Acquir'd Gout in the first Person, or in those born of found Parents, feems to me, to be the Abundance of Tartarous, Urinous, or other Salts. introduc'd into the Blood by the Food. Salts feem neither to perish, nor to be begotten; but to be constant and incorruptible Parts of Animal and Vegetable Bodies. The Delicacy and Flavour of Flesh and Fish, is entirely owing to their abounding with a fine, foft, oily, or urinous Salt, as is evident in Venison and Wild Fowl. Wines, of all kinds, have a greater or lesser Quantity of Tartar in them : And other strong Liquors abound in their peculiar Salts, in Proportion to their Strength. Spirits are nothing but a great Quantity of Vegetable Salts crowded together in a little Water and Oyl. These Salts receiv'd in Abundance, but neither sufficiently broke by the Digestive Powers, nor driven out of the Habit by due Exercise; but by their Plenty and Nearness, uniting in greater Clusters, must necessarily

necessarily form Obstructions, and give Pain, when by the Force of the Circulation, they are thrust through narrower and stiffer \* small Vessels. Nothing either receiv'd or bred within the Body, besides these Salts, can account for this Difference.

V. Schol. This may feem too general a Way of accounting for the more immediate Causes of a Particular Distemper; since the same Principles, with proper Limitations from Circumstances, will account for most Chronical Diseases. But, I fear, this is as near the Matter, as just Observation, and found Philosophy will bear us out. To indulge Imagination, and fay, That the Specific Cause of the Gout is an Union of an Urinous and Acid Salt (as perhaps the Urinous may arise from an Acid Salt united with an Oil, or Sulphur) possibly the Appearances of the Gout, and the Materials out of which it is produced, might make it look, neither without Verisimilitude, nor without a specious Show: For it is Fact, That Abunhance of Urinous Salts disposes towards Inflammations; and Plenty of Acid Salts, tears, rends, and excites Pain. High season'd rich Foods supply the former, as generous strong Liquors, (the Diet of the Gouty, as is afterwards shown) do the latter. But these gay

<sup>\*</sup> Capillaries.

Dreams I leave to those, who delight to dwell in the Fools Paradice. That in general, the Cause of the Gout is such as I have describ'd, is evident, (1.) From the hot, twitching, scalding Humour, descending the Thighs and Legs, on the first Attacks of the Gout. (2.) From the violent Inflammations and Pain on the Part where the Gout fixes. (3.) From the large Tumor arising on the Place affected. (4.) From the Swelling of the Veins over this Tumor, and from it towards the Heart. Which can arise from nothing but the Mixture of the Goutish Humour with the Blood (rendring it more Sizy) directed thither by the Order of the Animal Oeconomy, and made more perspicuous, and increas'd by the Pressure of the Tumor, and the sharp Steams issuing from it, and piercing the Coats of the Veins. And this Disposition of the Blood is carry'd on till the Veins enlarge so at their Return, that it has Room enough to pass without Resistance. All these show a gross, ill-condition'd Humour, carried even by the Blood-Vessels, or separated immediately from the Blood by the Small Glands; an Humour by far too gross and fenfible to reach the Nerves, or their Juices. The Nerves, I say, whose Perviousness is uncertain, and the Fluidity of their Contents much more so. But, to be sure, their Minuteness is fuch, as not to suffer so gross an Humour to pass them.

Four and twenty Haire.

VI. Coroll. 1. Hence we may learn the Reason why, on the first Attacks of the Gout, in otherwise healthy People, the Humours generally fall on the Joints of the Limbs : Because, in the Joints, the smallest Vessels are more compress'd, by the larger Heads or Protuberancy of the Bones, and are thereby render'd narrower, and more readily obstructed. These Obstructions fall on the Joints of the Limbs; because of the greater Length of these small Vessels, between the Heart, the Origin of the Motion of all the Fluids, and these Joints; their other Extremity: Whereby the Quickness of the Circulation diminishing, Obstructions are there more readily form'd.

VII. Schol. By the Smallness of the Glands in the Joints, the Natural Coldness of these Parts, their Distance from the Heart, their Compression by the larger Extremities of the Bones, the Weakness of the Inward Motion of the Parts of the Blood, upon one another, and thereby their Readiness and Disposition to beget Obstructions there; the Joints become more liable to Gouty Indispositions. See Keill's Tentamina, pag. 123.

VIII. Coroll. 2. Hence likewise we may see the Reason, why the first Fits, of otherwise healthy Persons, Enrage and Remit once in Four

Four and twenty Hours. The \* Access being at Sun-set, and the + Remission about Daybreak: Why the whole Fit in such lasts about Fourteen Days. And lastly, Why the particular Accesses and Remissions, of Persons advanc'd in Years, and broken with the Gout, happen only once in Fourteen Days. And why the whole Duration of the Fit is made up of several such Accesses and Remissions in equal Times. In the first Stages of the Gout, the Fluids being less Sizy and Glutinous, their Salts and Siziness are sooner broken and disfolved by the Action of the Solids in the Circulation; and are thereby fooner brought into a Condition to be carried off by Perspiration; which makes an Access and a Remission. The greater Weight and Grossness of the Air (which hinders Perspiration) at Sun-set, beyond what it is at Day-break, together with the particular Degree of Sizinefs, feems to determine the Times. The greater Degree of Siziness in the Fluids, of People advanc'd in Years, and broken with the Gout, lengthens out the Duration of these Accesses and Remissions. And the precise Period of Fourteen Days, seems to arise from the special Nature of the Siziness of the Fluids, and its Resemblance to that of a Regular intermittent Fever. The whole Duration of whole

<sup>\*</sup> When it begins to enrage. † When it begins to be easier.

[9]

Fits put together, Sydenham has observ'd already, to be equal to Fourteen Days. But the particular Explication of all these Things, wou'd require more Room than can be allow'd them, in the Bounds I have prescrib'd to my self. My Friend, if he pleases, may consult Bellini on this Head.

IX. Schol. Determin'd Causes produce determin'd Effects, and a determin'd degree of Siziness in the Blood, all other Circumstances continuing the same, will require a Determinate Time to be duly diluted, broken, and thinn'd. In inveterate Gouts and decay'd Constitutions, the Period of twenty four Hours is lengthen'd out into fourteen Days. It is demonstrable, that Chronical Distempers would have their Periods, or terminate of themselves, as well as acute ones; if the Cause that produced them, and the Fuel that feeds them, were as readily to be withdrawn in the First, as in the last Case. In Islands, especially those of our Northern Climates, the Inconstancy of our Seasons, the Inclemency of the Weather, the Intemperance and Groffness in Diet, and the Inactivity of the People, make these Periods less obvious and manifest. than they might be in Eastern Countries, and warmer Climates, where all these Things came on, and subsisted in a more uniform Manner: Nevertheless, ev'n amongst us, there are manifest Footsteps of these Periods, [ 10 ]

in some Chronical Distempers. I have seen a Rheumatism in Five, or Six Weeks Time, terminate by meer Abstinence. I have known an Anafarca perfectly cur'd in Five Months time by obstinately abstaining from Drink. I have observ'd a Cachexy, of many Years standing, from an exceeding low State, in a Month's Time, end in a daily Recovery; and these Periods have generally happen'd about August, or towards the Autumnal Equinox. Tender, weak, valetudinary, and low People, especially those who labour under Diseases, arising from a relax'd State of Nerves, sink, droop, and decline, towards Christmas; and seldom get up till towards Midsummer. Those who are lowest, begin sooner to decline, as they likewise get up sooner, because less Force acts more strongly upon them, than upon the others. Many useful Observations have been made upon the Effects of the Conjunctions, and Oppositions of the two great Luminaries, on Nervous, and Cephalick Diseases, by the Ingenious \* Dr. Mead. On some such Persons, especially the most weakly, and dispirited, the Sun has an Influence, much the same as it has on Plants, and Vegetables, or on the Summer Animals (fuch as Insects, Batts, Owls, Swallows, Dormice, &c. which are in a State of Insensibility, and Inactivity, during the Win-

<sup>\*</sup> Vide Mead de Imperio Solis, & Lune, &c.

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ter Season; but whose Juices are rarified and expanded, the inward Motion of the Parts of their Fluids upon one another, increased and strengthned, their Circulation promoted and enlarged, their Perspirations quickned and augmented, and their Spirits chear'd and enliven'd, by the kindly Influences of this Material Deity. And during his Absence, the quite contrary happens to them in all these Instances. They are truly Natural Thermometers, and their Juices rarify, or condense. Their Perspirations rise, or fall, as this External Source of Life and Activity influences them. It is past all manner of Doubt, that all acquired Chronical Distempers, would, in Time, terminate of themselves, have their Periods of Remitting and Enraging, from the Natural Drains of the Body, the Actions of the Solids, and the internal Motion of the Fluids, if new Fuel were not supply'd them, from Time to Time.

X. Coroll. 3. Hence we may discover the Reason of the common Observation, that Gouty Persons are People of good Natural Parts, large Feeders, and long-liv'd: Because the Fibres of the smallest Vessels, being more stiff and springy than ordinary, the Circulation is brisker, more full and free: whereby the \* Na-

<sup>\*</sup> That is, Eating, Digesting. and Evacuating, &c.

larly perform'd; and therein the best Health and truest Sensations consist: Strong Health requires liberal Supplies; and both together lengthen out Life.

XI. Schol. On the other Hand, this constant, and universal Observation, (viz.)
That Gouty Persons are commonly found strong, healthy, active, acute, and prudent Persons, is a manifest Demonstration of the Truth of the first Proposition: All these pointing and proclaiming a strong, stiff, springy, and contracted State of Fibres, and Nerves: Such a State of Fibres and Nerves. being absolutely necessary to such a Constitution. And it may not be amiss to observe. that when Age and the Gout have fubdu'd. relax'd, and softned the Nervous System, all these are proportionably impair'd; and therefore a more stiff, stretch'd, and springy State of the Nerves, and Fibres, is an absolutely necessary Condition towards the Gout : And this Condition plainly points out the true Method, both of Cure, and of Relief in it.

XII. Coroll. 4. From these also, we may discover what a Fit of the Gout is, to wit, An Effort of Nature, to throw off this Abundance of Salts, through more stiff and narrow † Strainers. Salts of all Kinds are more or

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less | burning: The Urinous most of all, as is evident from Spanish Flies, and that unextinguishable Substance, call'd the Phospheros, fo readily and plentifully to be had from Human Urine. (The Reason of which may be from their pointed Figure, piercing more readily, by its being besmear'd with a light Oyl: Or from their greater attractive Force; or from some other Quality, not yet, or perhaps never to be discover'd.) What is certain is this, That Persons of a large Appetite, as Gouty Persons generally are, seeding plentifully of Flesh and Fish, and drinking liberally of generous Wines, or other strong Liquors, and using, either too little, or too much Exercise, must necessarily overstock their Blood with these fix'd and incorruptible parts of Animal and Vegetable Bodies; which in their Nature being hard and burning, can't fail, first, to raise a Tumult and Fever; and then to give violent Pain, as they are driven out of the Habit, through more stiff and narrow small Vessels, by the Force of the Circulation: So that a Fit of the Gout may be consider'd, as a Crisis of a putrid Fever, wherein the noxious Humour is thrown upon some of the Muscles or Joints of the Body.

XIII. Coroll. 5. Hence we may discover the Vanity of the Pretenders, to a certain and uni-

Il Caustick.

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versal Remedy for the Gout. For unless a Remedy could be found, which at once cou'd change and new-mould the solid Parts of Human Bodies; alter the Nature and Qualities of Animal and Vegetable Bodies; and destroy Parts, that are in their own Nature fix'd and permanent, it is impossible it shou'd be certain and universal; and how possible such a Remedy is, I leave every one to judge.

XIV. Coroll. 6. Hence it is evident, there can be only two direct Ways of Treating the Gout, with any Prospect of Success. The one is, by stretching and widening the Capacities of the small Vessels, and \* relaxing their Fibres. The other is, by lessening the Quantity of the Salts introduc'd into the Fluids by the Food; these being the two Antidotes or Opposites to the two sundamental Causes of acquir'd Gouts.

XV. Here it may be convenient to take notice of the Difference between hereditary and acquir'd Gouts. The latter is produc'd in a Person, otherwise sound, from Ignorance or Negligence of the exact Rules of living. For the there be a natural Configuration of Parts, that disposes one Man more than another to the Gout; yet there might be a Method of Diet order'd, which shou'd prevent it. The

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former is a † Taint (compounded perhaps of Scurvy, Stone and Pox) transmitted to the Patient, with the Principles of Life, together with a Disposition in this Taint, to unite it self to any Malignity, introduc'd into the Habit, through Excesses.

Necessity of a much more strict and careful Management, in hereditary Gouts, than what is necessary in acquir'd ones. In the first, the Gouty Humour is ingrain'd and transubstantiated into the Solids, and other Principles of Life, and impossible to be rooted out by human Art and Industry: The most that can be done is, to lessen and relieve the Symptoms. Whereas in acquir'd Gouts, the noxious Humour being more confin'd to the Fluids, a proper Diet, due Exercise, and a sew well-chosen Remedies, may go a great way; if not to a persect Cure, yet to make Life to-lerably easy under them.

XVII. Schol. That Gout, Scurvy, Pox, and Kings Evil, are communicated to Posterity, is certain: And yet on the common Principles of Generation, it is not easy to imagin, how they can be, unless we conceive, that the Grossness of these Insections subtilizes, as the Principles of Animal Bodies lessen. We see

in Venereal Distempers, that inveterate Degrees of them, and imperfect Cures, leave a Subtile Steam, Stain, or Vapour, which affects the Bones, Membranes, and Nerves; even, when the gross Matter, which manifests it felf in Ulcers, has been expelled. I have feen the most exquisite Pain, and Misery, which even Opium it felf could not stun, when no outward Symptom appear'd to manifelt the Distemper. I have always suspected (and I think not without Reason) that the Valetudinary, low State, and Nervous Complaints of the thin, Hereditary, Hysterick, and Hypochondriac, were owing to a latent Scrophula, or Scurvy: And I have generally found, that fome time or other, they have manifested themselves. The last in foul Faces, gross, and thick Rashes, blue Scurvy Spots, and other Out-breakings of the Skin, which by no means could either be kept out, or perfectly cured. And the first in Chilblain'd Fingers or Toes, fwell'd and schirrous Hands, thick Lips, inflam'd Eyes, white Swellings, or knotted Glands in some Parts of the Body; or have generally terminated in Scropbulous Confumptions, with Ulcers or Tubercles on the Lungs, in Fits or Convulsions, or incurable Loosnesses, from knotted Guts or Mesentery. And this Observation has been of some use to me, in pointing out the combining Antiscorbuticks, or Scrophalous Remedies (which do not much differ) together with nervous Remedies,

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medies, and a strict Diet, or Regimen in such Cases. And this shows likewise, how useful Bath Waters are in them, contrary to the Opinion of them, who will not allow em proper in Vapours or Melancholy.

XVIII. Of all those things that a Gouty Person can safely undertake for his Health, wisely manag'd Exercise, seems that alone, which can best answer one Part of the first Intention, viz. The widening the Capacities of the small Vessels. Labour or Exercise asfifts the Gouty three different ways: First, As it increases the \* Motion of the Parts of the Fluids among themselves; so that their Salts, by their † striking one against another, are broken and made less, that they may pass more readily through the small Vessels. Secondly, As it adds a new and foreign Force to the Blood, and thereby promotes its Circulation from the Heart through the small Vessels; driving some of the grosser Parts of the Fluids through them, which in the ordinary Course of the Circulation wou'd not pass so freely; and thereby opening their Obstructions, and enlarging their Capacities. Thirdly, As it increases the natural Perspiration; the Action of the Muscles in Labour and Exercise, and the Spring of the Solids by their multiply'd Efforts, squeezing the Strainers of all their

<sup>\*</sup> Intestine Motion.

Contents. But to make Labour and Exercise as useful as they may be, two Cautions must be added to them: First, That they be not too violent, in respect of the Patient. For too violent Exercise will, necessarily, either spend the Spirits, whereby the Digestions and Circulation will be impair'd; and so a regular Gout be brought into an irregular one: Or by shaking all the Gouty Salts at once upon the Extremities, a regular Fit will be forc'd out; which, in less violent Exercise, might have been spent by Perspiration. Secondly. That Moderation in Eating and Drinking be join'd to it; for commonly Gouty Persons are large Feeders; and Exercise emptying the Stomach, the Guts and small Vessels, if the Appetite be satisfy'd to its Craving, the Evil is rather increas'd than diminish'd thereby.

XIX. There be two direct Ways of lessening the Quantity of the Salts, which produce the Gout. The first is, by a total Abstinence from, or a great Abstemiousness in Flesh, Fish and strong Liquors, which introduce those Salts into human Fluids. But this Course is never to be undertaken, but with great Caution, and in the last Extremity: For these two Reasons; First, Because an entire Vegetable Diet weakens all the digestive Powers, and all the Functions of Life; impoverishes the whole Mass of the Fluids; impairs the Strength, and dispirits the Man: And thereby necessaries

ly begets the worst kind of Hysterical and Hypochondriacal Disorders, and all their black and difmal Confequences (at least till the Body has been long accustom'd to it) which is a Disease far worse than the Gout it self: And to which the Gout only brings the Patient, in its last and fatal Stages. Secondly, Because this Diet, once enter'd upon, is never after to be chang'd, under the Danger of certain Death; or the most violent enraging of all the Gouty Symptoms. For a Vegetable Diet, as has been just now hinted, weakening the digestive Powers, and all the Functions of Life, &c. the Patient can never after be brought to bear with a free way of living, without the Hazard of certain Death, or a violent enraging of the Gouty Symptoms; as is too plain from many fatal Instances. If any Diet is ever to be try'd in the Gout, it is to be order'd in Cornaro's Method; that is, by living on the white Foods; eating Flesh and Fish of the lightest Digestion, and drinking generous, un. mix'd Wines, both of them in small, and constantly equal Quantities, in Weight and Meafure; under the Craving of the Appetite, and proportion'd for the mere Support of Life.

XX. Schol. The Case of a Person is well known to me, who to daily Exercise, and riding on Horse-back, and other proper Remedies, added four Years of a strict Regimen, or Diet, to restore a gross Scorbutic and Cachectic Habit, which

which was introduc'd by an Autumnal Ague. The first Year was spent in a gradual Decrease from a full to a low Diet. In which, Breakfast and Supper were near a Quart of Asses Milk; and Dinner, boil'd Chicken, Veal, or Lamb, with boil'd Milk, and Water for Drink, and not above a Glass of Wine. The two middle Years were spent in a rigid Milk Diet, religiously confined to Bread and Milk only. The End was obtain'd, the Juices sweetned, all the Scorbutic Sores heal'd up, the Appetite restor'd, the Spirits render'd light and eafy. The last Year was spent like the first, in a cautious and gradual Entry upon a fuller Diet, with a just Sense of the Danger, either of fatisfying the Appetite to the full, which then grew craving and ravenous, or advancing too quickly upon firong Food, for which the concoctive Powers were not equal. Three Fourths of the whole Diet being Milk Meats, and the rest Flesh of the lightest Digestion. Yet had the long continued low Diet, for far impoverished the Fluids, cool'd the natural Heat, and relax'd the Solids, that they were not sufficient even for this so slow a Change: So that the Person in the following Spring, was thrown by it, into a lingring, dangerous, Putrid Fever, wherein his Life was despair'd of by all his Physicians. The Prince of Conde also, after having long fuffered, and been quite overcome by the Gout, was advis'd by his Physicians for the Re-

Relief of his Pain, to enter upon a Vegeta. ble Diet, and a total Abstinence from Fish. Flesh, and Wine, It succeeded accordingly, his Pains were relieved, and the Gout overcome. But at the Marriage of his Daughter. in the Jollity of the Festival, being tempted to drink a little Wine, He, from one step to another, was drawn into his former way of Living; the Gout returned with greater Violence than before, and cut him off in a short Time. Cornaro tells of himself also, that being past Threescore, he was advis'd both by his Friends and Physicians, to increase his constant and measur'd Diet, by two Ounces of Meat, and two Ounces of Wine only: Because, faid they, the Decays of Age wanted more liberal Supplies, than the Vigor of Manhood, or the growing Strength of Youth. He for a long Time relifted their Importunities, having been by his low, and uniform Diet, recovered from the infufferable Torments of the Gout, and Chotic, which had render'd his Life very miserable, for many Years before, into an indolent, calm, and confirm'd State of Health. However at last being overcome by them, in less than a Year's Time, he was thrown into a dangerous, Malignant Fever, which almost cost him his Life, escaping narrowly through the Force of his former Temperance.

XXI. The other direct way of banishing the Salts out of the Habit, is by Evacuations.

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Sydenham, otherwise a most accurate Observer of Nature, and a most judicious Practitioner, has been the Occasion, I think, of a great Mistake in the Management of the Gout: by forbidding almost all Evacuations, either in the Fit, or in the Intervals, for fear of weakening the Constitution. There are two Seafons, to wit, Spring and Fall, when the Periodical Fits of regular Gouts commonly happen; which I consider as Cardinal and Critical Discharges, under general and mechanical Influences, for purifying the Blood, and difcharging the Gouty Salts: In which Nature is no more to be disturb'd in its Operations (I mean as to Purging, for even then a gentle, flow, constant and uniform Perspiration and Breathing Sweat may be promoted, not only fafely, but with great Advantage) than in the Monthly Purgations of the Sex. But in light, flying Touches of the Gout, out of these Seafons; and in the Intervals of the Fits, gentle, warm, stomachic Purgers will be an excellent Remedy to fend these a going, to lesfen the Fits, and lengthen the Intervals. A Person out of the Pain and Inflammation of the Fits, and in their Intervals (except his natural Disposition to breed another Fit) is, to all Intentions of Medicines, the same as a well And all Medicines levell'd against other Diseases incident to humane Bodies, may be as fafely administer'd to a Gouty (regard being had to his particular Constitution)

Syden.

as to any other Person. Wherefore, the general and direct Methods of relieving the Gout, are, in the Fits, a gentle, uniform, continu'd Perspiration and Breathing Sweat: In the Intervals, Labour or Exercise, and gentle, Stomachic Purgers.

XXII. The Secondary or less direct Methods of relieving the Gout, are principally these two, First, Dilution, by proper Liquors. Secondly, Strengthners of the Instruments of the Digestion. Nothing is more likely to thin the Blood; to dissolve and break the Salts, and keep them at a distance from running into Clusters, than proper Diluters; as we see in Fevers, Rheumatisms, and other inflammatory Distempers. For this Reason, among others, it is, that Bath and German Space Waters, and all other Mineral Chalybeat Waters; Dwarf-Elder Tea; Trifoil Tea; light, quick, Green Tea; small spicy Bitters on Water, and fuch like, drunk freely, Blood warm, on an empty Stomach, become so useful in Intervals of the Gout. Water is the universal Dissolvent of Salts of all forts; and being replenish'd with the spicy, bitter and active Parts of other Bodies, it strengthens the Stomach and Bowels; breaks and dissolves the Salts; cleanses the infides of the Vessels from the Foulness that constantly adheres to them, and carries it out of the Body, by increas'd Perspiration and Urine.

XXIII. Strengthners of the Instruments of Digestion, are an excellent Remedy in the Intervals of the Gout. If the Digestions be true and good; the Parts of the Chyle be made fufficiently small, and the Circulation be full and compleat (all which are the common Effects of Stomachic Medicines) the Salts will be less; the Obstructions of the small Vessels fewer, and the Impurities of the Fluids will more easily pass by Perspiration, and the other Drains of the Body; and so the Fits of the Gout become more easy, and less frequent. Among all the Strengthners of the Digeftions, I wou'd recommend a strong Insusion of the Jesuit's Bark in generous Claret, assbeing the coolest Bitter, the most powerful Strengthner of relax'd Fibres in the Instruments of Digestion; and the greatest Antidote of the urinous Salts, especially if join'd with Chalybeats, and some Qualifiers of its mawkish and nauseous Tafte. The Bark has the same Effect on the Coats and Fibres of the Vessels, that Oak Bark. has on raw Leather; and the same Effects on the Fluids to prevent their Coagulation; and to render them uniform, that the Testaceous Powders have on Vinegar, or as they have on Milk, to prevent its Curdling: But more especially, as it produces such Wonders on the Solids and Fluids in intermittent Fevers; to the State and Condition of both which, the Solids and Fluids of Gouty Persons bear so near

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near a Resemblance, as has been observ'd in Coroll. 2. Wherever the Bark is proper, I recommend the Glans Guercina, or Acorn, as of the same Class of Medicines, and in some Cases of Relaxation exceeding the other. It is cool and easily digested. But they do best united. All bitter and spicy Medicines have more or less of the same Quality; but heat the Body more, and brace the Fibres less.

XXIV. Mercury, by its Weight, and its constantly forming it self in little Spheres (or perhaps from its greater attractive Force) throughout all its possible Divisions, seems to offer fairest, of any internal Medicine, for breaking the Gouty Salts; for relaxing the Fibres; and enlarging the Capacities of the small Vessels. And the Fact is, that by a full and free Salivation, Gouty People have been freed from all its Symptoms for feveral Years. But it is also Matter of Fact, and Experience, that a full and free Salivation does fo break, rend and tear all the smallest, tenderest and finest Vesfels and Fibres, that the Body becomes in a worse State, in respect of the future Fits, than it would have been in several Years time, under the common Symptoms. For tho' a Salivation may open all the Obstructions of the small Vessels; cleanse their insides from the Foulness that cleaves to them; purify the Blood, and break its saline Impurities; yet by its great Weight, and the excessive Force it

adds to the Blood; rending and tearing the finest Vessels and Fibres; when the Gouty Perfon comes to his former Diet, and the other Circumstances of Living; and the Fluids become thereby loaded with their Salts, they stick more obstinately to the Joints, than if the Parts had been subdu'd and broken by regular Fits of the Gout. So that a Salivation, tho' it banish the Fits for some time, yet when the Blood is replenish'd again with Gouty Salts, the Habit is reduc'd to a worse Condition, in respect of the future Fits, than if they had never been interrupted: And, indeed, it is observable, that after a full, or repeated Salivations, the Man is feldom or ever the fame, as to the Quickness of Sensation; or the Usage of the most beautiful animal Faculties. But there is an absolute Necessity of having recourse to Mercurial Vomits and Purges, when the Gout becomes fixt to, and permanent in a Place, as also when it is dispersed all over the Habit, like a Rheumatism. These active Medicines must first render the Humours sluid, which Gum Guajac, with Diaphoretick Antimony, perfifted in, will afterwards carry off. I come now to confider the Gouty Person under two different Circumstances. First, under a regular Fit. And, Secondly, in the Intervals.

XXV. 1. On the First Attack of the Fit, especially while the Fever, that ushers it in, remains, Dilution is the only Remedy. Fine, clear,

clear, old fmall Beer, with a little old Mountain, or Madera Wine; Water boil'd with a few spicy Seeds, mix'd with these Wines: Water Gruel with some Wine, or Hartshorn-Drink with Cinnamon; and little or no Flesh Mear, will fucceed best during all the time of the Fever. After the Fit is distinctly form'd, the milder Cordial and Stomachic Medicines, which promote a gentle Breathing Sweat (I mean in the more compounded and tedious Fits of the Gout, chiefly in Persons advanc'd in Years) such as Gascoin Powder, Goa Stone, Bezoar; Sir Walter Rawleigh's Cordial, Diafcordium, Confection of Alkermes, and the like, wash'd down with clear Blood-warm Sackwhey; in every Draught of which ten or fifteen Drops of Spirit of Hartshorn has been first pour'd; with Flannel on the Parts, and much lying a Bed; fuch a Method, and fuch Medicines, I say, will best forward the Fit. Towards the Decline, the stronger, warmer, spicy and Stomachic Medicines; such as Serpentary Root, Casamunair, Zedoary, old Venice Treacle, Electuarium de Ovo, and such like; with a few Grains of Campbir, and Salt of Vipers; and a good Stomach Bitter on Wine to wash them down, will finish this Affair, strengthen the Bowels, and prevent the Recoil of the Gouty Humour on them. And here it may be taken Notice of, that as the Fever, that ushers in the Gout, is, so will the Fit be: If the Fever is short and sharp, the E 2

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the Fit will be so likewise, in regular Gouts: If it be feeble, long and lingring, the Fit will be fuch also. In the Management of the foregoing Method and Medicines, two Cautions are to be minded: First, That during the whole Fit, Liquors may be more freely and fafely indulg'd, than folid Foods. For Repletion from folid Foods, in a Fit of the Gout, might be of fatal Consequence, by rendring a regular Fit of the Gout irregular: Whereas Fluids will certainly pass, either by Perspiration, Sweating, or Urine. Secondly, The Cordial Medicines are always to be regulated, by their Lightness on, and Agreeableness to the Stomach of the Patient; (for whatever makes him fick, will more or less draw in the Gouty Humour on the Stomach) and by their not rendering him more hot and restless, than the Gout it self wou'd naturally make him: For if they produce an agreeable Senfation on the Stomach, and do not inflame, they will necessarily procure Coolness and Quiet.

XXVI. Here it may be consider'd, whether Opiats may be safely given in a Fit of the Gout, to procure Rest, and alleviate Pain. In the general, it is the safest side, not to administer any kind of Opiats in the Fits; because they constantly pall the Appetite, and leave a Nauseating, and perhaps a Reaching on the Stomach, the readiest way to bring the Gout there. But in Extremities, when the

Patient has been many Days without Rest, and the Pain becomes intolerable, all other Means failing, or equally dangerous, Opiats may be so qualify'd, and their mischievous Effects so bridl'd, by joining fpicy, nervous and Stomach Medicines to them, that they may become an excellent Remedy. Thus liquid Laudanum, with Tincture of Caftor, of Snakeweed, of Diambra, of Saffron, Sal Volatile, Compound Spirit of Lavender, Hysterick Water, and some agreeable Simple Water; some of these mix'd in a due Proportion, and proper Dose, will not only procure Rest, and ease Pain, but answer all the other Intentions in the Cure of a Fit of the Gout. Thus also London Laudanum, with old Venice Treacle, or Mythridate, Serpentary Root, and unscented Species of Diambra, made into a Bolus, with any agreeable Syrup, and caution'd, as before, will produce the same Effect.

XXVII. As foon as the Pain is almost gone, and the Swelling and Weakness only remain, nothing will more quicken and finish the Cure, and strengthen the weaken'd Parts, than gentle, warm, stomachic and spicy Purgers, dos'd and repeated according to the Strength of the Patient; by carrying out of the Habit, the more gross and unperspirable Remains of the Gouty Humour. This premis'd, especially after long and severe Fits, which have impair'd the Strength, and wasted the Muscular Flesh;

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Flesh; I should advise Asse's Milk with Pearl, half a Pint, or a Pint, in the Morning early, and five or fix a Clock in the Afternoon; to lengthen out the Morning Sleep, to pulp up the exhausted Muscles, to cool and refresh the parch'd Fibres, and keep the Body foluble; which Asse's Milk commonly does. And to keep up the Appetite, which the Milk commonly palls, and to prevent its too cooling Effects on the Stomach, a light Bitter made of Gentian, Cinnamon, and Orange Peel only, the last double of the other two, infus'd on Sherry or White-Wine, and taken two Hours before Meals, may be us'd most conveniently. This Course might be continu'd for two or three Weeks: After which I shou'd order a Course of Bath or German Spaw Waters with Steel, Riding, a light White-food Diet, and generous Wines drunk temperately.

XXVIII. It is in the Intervals of the Fits that any thing great or probable is to be undertaken for the Relief or Cure of the Gouty. The Methods, both general and particular, I have touch'd upon. I come now to recommend some special Medicines, which have been found useful in this Case. It is certain that great Abstinence from Flesh, Fish, and Wines, would prevent the Fluids from being overloaded with Gouty Salts. It is also certain, that if the Food be carry'd out before it is digested, it will be pretty near the same Thing,

Thing, as if the Quantity carry'd out, had not been taken down. Now if a Medicine can be found, that without weakening the Stomach and Bowels, shall carry off the greater part of the Food, before it is quite rob'd of its Salts, it can't fail to be of great Use in the Intervals of the Gout. For this purpose, I wou'd recommend fine Rhubarb, taken regularly once, twice, or oftner, a Week, in fuch a Dose, as to procure two or three Motions: For these Reasons, First, Because it is an excellent Stomach Bitter, as is evident from its Tafte, and from the sharp Appetite it gives those that take it frequently. Secondly, Because it is one of the noblest Astringents hitherto known, as is evident from its Cure of Fluxes, and intestine Hamorrhages; and from the Tightness it leaves on the Bowels. Thirdly, Because it requires neither Diet, nor keeping warm, nor any other particular Management; and yet taken frequently and regularly, it will carry off any Proportion of the Food one pleases; and so reduce the Diet, as near as needs be, to Cornaro's, which, in Article XIII, has been shewn, to be of so excellent Use in the Gout. I knew a Noble Lord, of great Worth, and much Gout, who, by taking from the Hands of a Quack, a Dram of Rhubarb, ting?d with Cochineal to disguise it, every Morning for the Space of fix Weeks, liv'd in Health for four Years after, without any Symptom of it.

XXIX. Schol. That Regimen, which with proper Medicines, and due Exercise, I have found most successful of any, for the Cure of Chronical Distempers, even the most deplorable, has been by retaining a small Proportion of Flesh (of younger Animals, and of a whitish Colour) and Wine (of the lightest, and most generous kind) and making up the rest of the Meal with Milk Meats, Sago, Rice, and other Vegetable Foods: The whole of a moderate, but equal Quantity. By this Method, the Strength of the concoctive Powers have been supported, the Vigour of the Juices have been maintain'd, the Mass has been gradually altered, and the Danger of raising the Diet higher (when Health, a stronger Digestion, and a perfect Recovery, have made it proper) has been prevented. For certain it is, this Method, if instituted within, or not long after the be-ginning of the Decline of Life (which from the Authority of an inspir'd King, and Prophet, I place about Thirty Five) in due time with proper Remedies (the great Organs not being spoil'd) will bring on a Period, or Conclusion to any Chronical Distemper whatsoever. I have endeavour'd by feveral Trials on my felf, and others, to determine the quantity of Food that will preserve a Person of a confirm'd State of Health, near to, or already past the Meridian of Life, that uses no violent bodily Labour, in a due Plight, freedom of Spirits,

and wonted Vigour, in these our Northern Climates. And I have fixed it (as near as fuch a various Subject can be limited) in about eight Ounces of Flesh Meat (Beef and Pork excepted, which I think ought cautiously to be used by those that live according to Rule, by reason of the Rankness of their Juices, and their Hardness of Digestion) about twelve Ounces of Bread, or other Vegetable Food. and about a Pint of Old generous Wine, or Liquors of the same Strength. Those who study hard, keep the House constantly, or would cure a Chronical Distemper, must even abate of this Quantity. I make no account of watery Liquors in this Estimate, such as Tea, Coffee, and the like. Nor do I think Fish a good Diet for those who are subject to Chronical Distempers, which most are, who are near the decline of Life; for it's certain, the Bodies of all Animals, at last, partake of the Nature of their Food; but it is to be minded. that no quantity or quality of Food, will long preserve any one in perfect Health, who uses not due Exercise, and proper Relaxations, for without these, no Food can be duly concocted.

XXX It is worth here taking Notice, that all the Preparations of this Medicine serve only to spoil it: And that it is best taken in a spoonful of Soup, or any other agreeable Liquor, immediately before Dinner, or chew'd

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in a Morning fasting. But to those to whom its Mawkishness is nauseous, I wou'd recommend this Form. Take Gentian and Zedoary of each a Dram, Serpentary Root, and un-scented Species of Diambra, of each half a Dram; Cochineal and Saffron of each a Scruple; Orange Peel an Ounce; infuse in a Quart of Mountain, in a warm Place, twenty four Hours, strain, and to the Liquor add three Ounces of the best Rhubarb; Salt of Wormwood a Dram and an half; set in a warm Sand, heat twelve Hours; and then strain a second time. Of this four Spoonfuls every Night, or every other Night, as occasion requir'd, I have found an excellent Remedy in this and other Chronical Cases. Where no Preparations of Rhubarb will agree with the Constitution, as there are many fuch, then Elixir Salutis, Tincture of Hiera Picra; a Solution of Gum Guajac, or the Scotch Pills, might take place; but that all the Preparations of Aloes are apt to throw out both Gout and Piles. However in this matter there is great Variety; out of which every one may fit themselves with what is most agreeable to their own Constitution; which if they use regularly and frequently, they cannot fail to prevent violent Fits of the Gout, and perhaps most other, both Acute and Chronical Distempers.

XXXI. Schol. I have known some eminent Physicians, that have had so little regard to Syden-bam's

ham's Opinion in this Matter, that in the Fit of the Gout it felf, at whatever time it happen'd, they never scrupled to drive it off, both from themselves and others, by strong, quick, and active Purges, which they repeated every Morning, whilst the Fit continu'd, and at Night quieted the Tumults they excited, and expell'd the Gonty Humours, introduc'd into the Habit by them, with Cordial and warming Medicines, mixt with Opiats. This Method they continu'd till the Pain was gone, and the Tumour subsided. And to prevent its return, carry off all the remaining Goutish Humours, and to strengthen the Habit, they pursu'd gentle Stomach Purges, Aromatick Diluters, and warm Alteratives, till a strong Constitution was obtained: And most certain it is, this Method will cure any Fit of the Gout, how obstinate so ever, and that in a few Days. The Reasons they gave for this Proceedure, was, that by fuch a Method, inflammatory Rheumatisms (of the Nature of which the Gout was) Erysipela's, Schirrous, and even hot Tumours, were fafely, quickly, and certainly (without Relapses or Danger) carry'd off; and that the Danger arising in common Practice, from purging off a Fit of the Gout, was, that care was not taken, to prevent its returning, or its falling on some other noble Part, by continuing these gentler, warm, Purges, Diluters, Alteratives, and Strengthners, to carry off intirely the Gonty Remains, to fweeten.

fweeten the sharp Humours, and to strengthen the relax'd Solids. But this I mention only to illustrate and confirm my Advice, of gentle Stomach Purges, in the Intervals of the Gout. For I am of Opinion, the most dangerous, and active Part of the Gouty Humour, is a great deal too subtile (tho' an Humour certainly it must be) to be carried off by any gross Evacuation whatsoever. And many fatal Experiences have confirmed the Danger of Tampering after such a manner (whatever Authority it may have to defend it, or specious Reasons to enforce it) to suffer any cautious Person to venture upon it.

XXXII. Next to Rhubarb, and all Circumstances consider'd, even far before it, I would recommend Sulphur, as one of the best Remedies in the Intervals of the Gout. It is but in little Use at present in Physick, except in the Itch, and the Piles; and yet in the whole Extent of the Materia Medica, I know not a more fafe and more active Medicine. Its wonderful Efficacy, and particular manner of Operating in these common Cases, might, I think, have encourag'd its Trial in other Chronical Cases, especially considering the Facility of its Working, and the little Trouble it gives in taking it. Its principal Qualities are thefe. 1. The Parts of Sulphur, and those of Light and Fire, act mutually upon one another, more powerfully than those of other Bodies,

It is to their Sulphur that Bodies owe the reflecting and refracting Virtues; from whence its Inflammability proceeds. \* The Particles of Sulphurous Bodies receive and retain those of Light and Fire, more strongly than any other Bodies: And the Rays of Light and Particles of Fire, separate, move and turn the Parts of Sulphurous Bodies into Fire and Flame. 2. The Parts of Sulphurous Bodies are very small, even smaller than those of Water it self. whereby it comes to pass that they will enter those small Vessels, where Water it self (our best and most universal Diluent) can't come; this is evident from hence, that Water will not dissolve Sulphur, and that no Moisture will stick to fat Substances, or the Feathers of Water Fowl: As also from its Cure of all cutaneous Foulness; which it cou'd never effectuate but by entering all those smallest Vessels, which scarce any other Medicine can enter. And lastly, by its dissolving the sizy Juices of the smallest internal Glands, when obstructed; particularly those of the Lungs. Mesentery and Rectum; as in the humorous Asthma, Scrophula and Piles. 3. Sulphurous Bodies will readily unite with, and destroy the Effects of all Saline Particles, but especially those of the acid kind. And in this their great Energy feems to confist. Sulphur yields

<sup>\*</sup> Vide Sir Isaac Newton's Treatise of Light and Colours, I Edit. in English, towards the end,

the most piercing, active, and agreeable Acid in the World; fuch as Spirit of Sulphur, Gas of Sulphur, and the like. 4. The fat and oily Parts of Sulphur, like other fat and unctuous Bodies, are the lightest, the most coherent, and the most springy of all Bodies. These two last Qualities are most manifest from the artificial Sulphur made of Oil of Turpentine and Spirit of Vitriol (the strongest Glew, and the most penetrating Acid) duly digested and carefully manag'd, which in all respects is the same with natural Sulphur. " No Body denies (fays Tournfort in his Voyage to the Levant, Pag. 122. Part I. English Edit.) " that Sulphur is only a fat Substance, " fix'd by an acid Spirit: The Sulphur which is artificially made, and the Analysis of comof mon Sulphur, put this Truth out of all Dif-" pute. For the Sea Water being fat by the " Oil of the Sea Fish continually corrupting " there, and bitter and faltish from its saline " Rocks, produces in proper Nests natural Sul-And Sir Isaac Newton fays, in his last Edition of his Opticks, pag. 359. " disfolving Flower of Brimstone in Oil of Turer pentine, and distilling the Solution, it is " found, that Sulphur is compos'd of an inflam-" mable thick Oil, or fat Bitumen, an acid salt, a very thick Earth, and a little Me-" tal: The three first were found not much " unequal to one another, the fourth in fo " fmall a Quantity, as scarce to be worth the CON-

" considering." Join all these Qualities together, and you have one of the most admirable Remedies in the World, for all Intentions in the Cure of the Gout: By its agreeable Tafte and Lightness on the Stomach, (especially when wash'd down with any milky Vehicle) its Tenacity, Ropiness and Elasticity; the Smallness of its Parts; their Efficacy in destroying the Mischief of all saline Particles, with their natural Warmth, join'd to the Activity of its acid Salt, (making it a kind of natural Soap) it enters the small Vessels, where no other Diluent, hitherto known, can come; cleanses their Insides from the Foulness that flicks to them; imbibes and retains all the Gouty Salts, and carries them out of the Body by Perspiration; softens, smooths and relaxes. the parch'd and stiffen'd Fibres; and by leaving some of its oily Parts on their Surfaces, fheaths and defends them from the Points of the Salts afterwards introduc'd. And the Fact is, from repeated Trials I can recommend Sulphur, as a most powerful Remedy in the Intervals of the Gout. For I have known half a Dram of powder'd Sulphur, or Flowers of Brimstone, taken regularly twice a Day in a Spoonful of Milk, prevent the Fit for many Years: and lessen both its Pain and Duration when it happen'd: For it mov'd the Body gently once or twice a Day. I have in my Possession Testimonies under the Hands of some treated and tended by my felf; and of others

others of undoubted Credit, witnessing to the great Success of this Medicine in the Intervals of the Gout. Nothing hitherto discover'd, I believe, equals it obstinately persisted in.

XXXIII. Schol. An ingenious Gentleman has lately recommended Campbire, as an admirable Remedy in the Gout; I heartily wish it may be found as beneficial, as he thinks it will be, both for the fake of himself, and that of others. I have try'd it to prevent Stranguries arising from Blisters, to remedy Hamorrhages in the Small Pox; in Hysterick Fits, and Convulsions: In stopping the Torrent of White Water in Vapours, and in the Fit of the Gout, to raise a gentle Perspiration. In all which Cases, I have found it sometimes more, and sometimes less successful, and in the last, I particularly recommend it. But it is so nauseous in the Stomach, so constantly Heartburns, in whatever Form given, is never fo readily dissolv'd in any Liquor, as Spirit of Wine, whose Heat it thus so increases, that it almost becomes a Caustic on the Stomach: And thus given as an Alterative, would probably do more Hurt, even by its scalding Vehicle, than it could do Good by its Virtues. That unless its Dose be very small, some more convenient Form of giving it be found out, or some Method be contriv'd to lessen its excesfive Heat, I should be much afraid of giving it inwardly, for any long Time. As to the Pre[41]

Preference he gives to it before Sulphur; all I can fay is, that I am ready to name a great many Persons of Condition and Parts, who are now taking, or have taken Sulphur in the Intervals of the Gout, and none without Success, more, or less: According to their Age, Constitution, and Management in other Respects. I think it unjustifiable to mention their Names without their leave, and I have no just Reason to ask it, not pretending to any Nostrum or Secret. But having plainly discovered all that I know in the matter, so that every Body is left to his own Liberty: and when Campbire has been as often, and more fuccessfully try'd, I shall most readily give it the Preference, being much less concerned for Reputation, than for being useful in Proportion to my poor Abilities. Tho' I own, I despair of finding a better Remedy in the Interval of the Fits of the Goat, than Sulphur rightly managed.

XXXIV. Especially if to these be added plentiful Dilution by some Blood-warm Insusion of a spicy and diuretick Plant in Water, so as to provoke a gentle Breathing Sweat, and pass freely by Urine. Thus large Draughts of Sage, Dwarf-Elder, Buck-bean, or Green Tea; but especially of weak Whey made on old Mountain, drunk Blood-warm, and on an empty Stomach, and join'd to any of the now mention'd Medicines, will be of great Advantage in the Intervals of the Goat; by diluting

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ting and breaking its Salts, and carrying them off by Perspiration and Urine. And certainly Roselli's Drops, (perhaps the Tinctura Metallorum somehow alter'd) which were said to work gently by Stool and Sweat, in the Hands of a prudent and knowing Physician, had been an admirable Remedy, as answering both the Intentions mention'd, in the Intervals of the Fits; and even in the Fits themselves, it had not been without its Use (always excepting the Vernal and Autumnal regular Fits) had he dealt with recent Gouts, and firm Constitutions only. That which I wou'd particularly recommend here, is, a weak Decoction of the BARK, of Sarsa Root (in the BARK, the Virtues of the Plants chiefly confift: For being replenish'd with most part of, if not all the Juice circulating Vessels, it contains all its Salts and most active Parts; and being spungy and tender, it is thereby more easily digested: And where Roots are most in Use, the Bark of the Root is more eminently useful, for the Reasons assign'd: As also because, towards the End of the Autumn, when Roots are gather'd, the Cold has already driven the Juices into their Bark. And this may be one Reafon why the famous Pox-Doctor succeeds in fome Cases, when mismanag'd Mercurial Treatments have fail'd: His Diet-Drink chiefly consists of a Decoction of the Bark of this Root: His Pill is Mercurial, perhaps the Arcanum Corallinum, or Panacaa, and these two [ 43 ]

persisted in for so long a time, must necessarily fweeten the tainted Juices, and expel the entangl'd and groffer Mercurial Parts, which clustering together, cou'd not perform the Circulation, but were retain'd within the Habit, by former mismanag'd Salivations, and thereby render'd ineffectual to the Cure; especially, if to these be added, the low and starving Diet he prescribes. For I have heard of a famous Sea-Commander, who effectually cur'd the first Stages of Venereal Distempers by living twenty Days on Water Gruel only, in which a little Cream of Tartar had been first disfolv'd; and higher Degrees of the same by the like Diet continued twice the Time;) with a little Milk, drunk freely Blood-warm every Morning, which I have known wonderfully relieve Gouty Persons, when drunk all the Winter between the Cardinal Fits. And even Cow's Milk warm, taken for Breakfast and Supper, has been of great Service to those Gouty Persons who drink not much Wine; for those who drink Wine freely, have too hot and four Stomachs to deal in Milk.

WXXV. Even drinking freely of light, clear warm Spring Water after full Meals, and indulging in strong Liquors, will be found of great Use in the Intervals of the Gout. It is well known that warm Water alone, drunk in a Morning fasting freely, and at Meals, from its Heat, its Dilution, and cleansing Qualities, has

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has been a sovereign Remedy in restoring decay'd Appetites, and strengthing weak Digestions, when other more pompous Medicines have fail'd. Lower very justly observes, that Persons that have drunk beyond the Rules of Temperance, may be much reliev'd from the ill Effects of it, by exposing themselves to the free Air, to cool the Blood, and to force off the Liquors by Urine. I'm of Opinion, were there neither Sin nor Shame in it, as there are eminently both, a Gouty Person ought to avoid Intemperance, as he wou'd avoid the Bite of a Snake or mad Dog. But fince fuch Accidents do happen, let the Gouty Person, after the Excess either in Meat or Drink, swill down as much fair Water as his Stomach will bear, before he go to Bed; whereby he'll reap these Advantages: First, Either the Contents of the Stomach will be thrown upwards, and he freed from a great part of the Load. Or, Secondly, Both Meat and Drink will be much diluted; and the Labour and Expence of Spirits in Digestion much sav'd. And Thirdly, The Gouty Salts will thereby be dissolv'd and distanc'd from one another: and so be more readily carry'd off by the free Perspiration, Sweating and Urine, which enfue.

Well order'd Course of Bath Waters, with Chalybeats and warm Bitters, and a frequent and regular Use of Stomach Purgers will be found

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found to fucceed best in Gouty, as well as other Chronical Cases. The Learn'd have been divided, and much perplex'd about the Heat of Bath Waters. I have always endeavour'd to account to my felf for it, from the common Experiment of mixing Filings of Steel, and Powder of Sulphur, working them into a Paste with Water, and putting them into a Cellar, under a Cock, dropping Water flowly and regularly; the Paste will ferment to such a degree, that the Water running from it shall be of the same Heat and Virtue with the Bath Waters; tho' not so pleasant, nor so well fitted to human Bodies. This is a common Experiment, and these are the only natural Bodies known, which meeting together will produce Heat in Water, without artificial Fires. Tournfort, in the Place before mention'd, fays, " It's certain that Filings of Iron steep'd in com-" mon Water will grow confiderably warm, " and much more so in Sea Water: And if " you mingle therewith fome Sulphur pow-" der'd, you'll fee this Mixture really burn." Sir Isaac Newton, in his last Edition of his Opticks, page 354. fays, "That even the gross " Body of Sulphur powder'd, and with an e-" qual Weight of Iron Filings, and a little Wa-" ter made into a Paste, acts upon the Iron; " and in five or fix Hours grows too hot to be " touch'd, and emits a Flame." That the Heat of the Bath Waters is owing to a Principle within themselves, is evident, from their retain[ 46 ]

retaining it longer than any other Water, heated to the same Degree, will. Wherefore there can be no Necessity of having recourse to Vulcano's or subterraneous Fires, to account for this Appearance. There are no burning Mountains known in this our Northern Climate; and 'tis pretty hard to conceive, how Fires shou'd have burn'd so long under Ground without a Vent, or any other remarkable Sign. The Sulphur in the Bath Waters is evident to the Senses, swimming in large Clusters on the Tops of the Baths mix'd with Earth, and some vegetable Substances, wherewith the Guides commonly gild Silver; and is found an excellent Remedy in Scurvies, Leprofies, Ringworms, and other Foulnesses of the Skin. The Steel is manisested by the bleuish Tincture given to the Water from the Pump, by an Infusion of Nut-gall. It is true, this Tincture is neither so deep, nor is it to be had from the Water, in any short time after it comes hot from the Pump, thereby to manifest any great Quantity of Steel in the Composition, such as can have the full Proportion to the Experiment now mention'd. But, to set this in a clearer Light, let us put together these Considerations. First, That upon Distillation of Bath Water, there remains little in the Bottom of the Glass but the common Calx or Sea Salt, that is found in the Distillation of Spring Water, if we except some Sand or Earth, that is forc'd up by the Violence of the Pump; wherefore

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fore the Bath Waters not being impregnated with any Quantity of a faline Mixture, can retain nothing in their own proper Substance but the lightest Parts of the Steel and Sulphur. Secondly, That this Water is as fully impregnated with Sulphur, as it can bear, has been already shewn: And that there must be a greater Proportion of Steel in Bath Water than is manifested to the Senses, or discover'd by any Experiment hitherto made, is evident from its healing Effects, which no known Medicine but Steel can bring about, or account for: None but those who have seen it, can believe the wonderful Efficacy it has, in most Chronical Cases. What, but Steel, in a few Weeks, can make the Blood, from a white blewish or tallow Hue, resisting the Knife, like Glew, fwimming in its Serum, like an Island amidst the Ocean, look all of a Piece, of a Scarlet Colour, and a due Proportion between its nourishing and its watery Parts. Nothing but Steel can make a pale ash-colour'd Countenance, hollow and deep Eyes, no Appetite, little Strength, and less Sleep; eat, and drink, and sleep, look gay and fleek, like the best Health. Thousands of such Instances may be seen every Season at these healthful Springs. Thirdly, The Effects of Sulphur in bridling the sensible Appearances and Operations of most active Medicines, is very well known. Instances of which, in natural Bodies, are, Antimony and native Cinnabar; in artificial ones, Æthiops Mine[ 48 ]

Mineral, and Cinnabar of Antimony: In all which the Mercury is so bridl'd up by the Sulphur, that none of their fenfible Operations and Appearances are felt, while they produce the most wonderful Changes on animal Bodies. I cannot pass over Æthiops Mineral without pressing its more universal Use than, for ought I know, it has yet had in common Practice. It is one of the most certain and universal Alteratives, if dos'd fufficiently, and long enough persisted in, of all the Dispensatory, It radically extirpates the Itch, the Piles, fcorbutick and scrophulous Ulcers; all cutaneous Foulnesses; all Inflammations and Fluxions of the Eyes; all internal Ulcers, Rheumatisms, white Swellings; sharp Humours in the Stomach and Guts, and almost all Distempers arising from sizy Juices. I say, it cures these, if Art can do it; for some of these (like hereditary Gouts) are so transubstantiated into the Solids, that nothing but a new Conformation of Parts can cure them. It may be given almost to half an Ounce a Day, especially with interspers'd Mercurial Purges, without Trouble, or any sensible Operation, and continu'd for a Twelve-month, if one pleases. The finest Sulphur, and fittest to make Æthiops of, is common Sulphur pouder'd, and boiled seven or eight times in Spring Water, whereby it becomes as light on the Stomach as prepared Pearl, and as effectual in the Cases mentioned, as the celebrated Sulpbur of Aix la Chapelle

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pelle Waters. But to return to the Busi-

XXXVII. Schol. I have had frequent Opportunities of trying Athiops Mineral in different Cases, fince the first Edition of this Treatife, and never without Success. Amongst others, I try'd it on a Person of an exceeding gross, corpulent Habit, who had past the Meridian of Life, for a spreading, foul, Scorbutic Ulcer, which had affected the whole Ancle, for more than a Span length quite round, and was pretty deep in the Out-side. He took three Drams made up with the Syrup of Lemons, twice a Day for four Months succesfively, and a gentle Mercurial Purge once in ten Days: This with a low, cool Diet, and proper Dreffings, heal'd it up quite, when twas generally thought, scarce any Medicine, especially so easy an one, would ever finish fuch a Cure, in fuch a Constitution. The Æthiops was taken without any Difgust, Trouble, or Interruption of Business; purging gently once or twice a Day: And it was observable (and it is for the fake of this Observation chiefly, that I mention this Instance) That the very Æthiops it self, after the Body had been fully replenish'd with it, in two Months Time, forc'd it felf through the found Parts of the Leg and Skin, and stuck to those Parts of the Plaister, that covered them, in its proper Substance, and Colour: I very well know, that

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that Scerbutic Ulcers will throw out a Sanious, and black Stuff: But this appeared chiefly on those Parts which covered the found Flesh, and disappear'd a few Days after the Æthiops was omitted to be taken. Which shows, how readily this Medicine passes through the fmallest Vessels of the Glands; and indeed Sulphur, tho' taken inwardly only, is quickly fmell'd in the Clothes of the Patient, and by discolouring the very Money in his Pocket. But more especially, when join'd with Mercury. This very Method never fails to cure Opthalmia's, even Scrophulous Ones, and is a most certain Remedy in an Ulcer of the Bladder, as I have always found, if giv'n in a sufficient Dose, and persisted in a sufficient Time.

XXXVIII. The fum of all then is, fince the Bath Waters derive their Heat from a Principle within themselves; since no natural Body, but Sulphur and Iron can produce such a Degree of Heat, as is in them; since nothing but Steel can produce those wonderful Cures on human Bodies, which Bath Waters do; since Sulphur will lock up and bridle the sensible Appearances and Esseets of the most active Bodies, and yet not destroy their healthful and medical Virtues; it is plain, that Bath Waters must owe their Heat to a Mixture of steely and sulphurous Particles; and their healthful Esseets, to a greater Proportion of Steel,



of its Purging. The Bourbon are of a middle Nature, between the Aix la Chapelle and the Bath Waters, and are less hot, nauseous and purgative than the Aix la Chapelle, but more than the Bath Waters. The Bath partake less of the Sulphur and more of the Steel than either of these two; and are by far the most pleasant; of a milky Taste, never purge, except they be drunk either too fast, or in too great Quantities, and always mend the Appetite, and raise the Spirits. The weakest hot Waters are but of little Use, except in the lowest Cases, and hectick or consumptive Constitutions; but for Medical Uses, the weaker hot Waters may be made pretty near equal to the stronger by Evaporation, as to the fulphurous Principle; as the stronger may be brought down to the weaker by Dilution, as I have experienc'd; tho' Nature be always the wisest and most perfect Operator. But neither the same Proportion of Steel, nor Sulphur, nor Heat, indifferently fit all Constitutions. Generally the Strength (i.e. the Quantity of Steel and Sulphur) of the same hot Waters is in Proportion to their Heat; and therefore to fit the same Waters to weaker Constitutions, they need only be drunk proportionably cooler.

Origin, and fuch Qualities, must needs be an excellent Remedy in the Gout, and other Chroni-

Chronical Cases, for these Reasons; 1. Because of their Warmth, just suited to the Wants of Nature, and a little above the Heat of human Bodies, sufficient to introduce a foreign Warmth and Motion to cold and decay'd Bowels and Fluids; whereby the natural Warmth and flow Circulation is increas'd and enliven'd. 2. This, with its agreeable Taste and milky Softness, makes it sit so easily on the Stomach, and become so excellent a Vehicle, to wash into the Blood other proper and specifick Medicines, without that Nauseousness and Fret on the Spirits, which all other hot Waters, hitherto known; or that Chillyness and Damp, which all cold Mineral Waters, give; whereby they are render'd useless or hurtful in some low and nervous Cases. To these add, 3. Their Chalybeat Principle, so peculiarly lock'd up in Sulphur, that the Patient reaps all the Benefit and healthful Effects of the best Preparations of this Medicine (and what are not two fuch powerful Medicines combin'd, able to effect?) without the nauseous Taste, and frequent Disorders upon the Stomach, that every other way of giving Steel produces. 4. The Sulphur united with the Steel, makes it a natural kind of Soap, for cleansing the insides of the Vessels from the Foulness that cleaves to them; and for opening the Obstructions of the small Vessels. But, 5. That which, together with the others, makes it specifick in the Gout, is, its relaxing

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Quality, whereby it softens and supples the rigid and stiff Fibres, so as the Gouty Humours may pass freely by Perspiration. Much more might be said of this wonderful Remedy provided by the Hand of Nature, to relieve the Miseries of human Life; but this the innumerable Crouds of Cripples of all sorts, and those other Persons made miserable by Chronical Distempers, sent thence, every Year, cur'd, or reliev'd, do witness, more convincingly than either Philosophy or Rhetorick can.

XL. I will here remove two Difficulties: The First is, concerning Bathing in the Intervals of the Gout. The only Reason given for this Difficulty is, lest the Gouty Humour shou'd be driven inwards upon the Bowels. But this feems to me a mere groundless Jealousy: For in regular Gouts, when the Fit is over, it is to be suppos'd, that the Gouty Fluid or Matter is mostly or altogether spent, and the Fluids in a healthy found Condition. And therefore it might be as reasonably doubted, if in the Intervals of two putrid Fevers (of which many have had more than two in their Life-time) a Person might safely bath. There is no Question, but that a Gouty Person may both as fafely bath, and take any Medicine, for any incident Disease, as any other Person; regard being had to his particular Constitution. And 'tis Matter of Fact, that those who have been crippl'd by the fixing of the Gouty Salts

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upon the Joints, or disabl'd by the Tenderness of the Parts, have been extremely reliev'd by a long Course of Drinking and Bathing in these hot Waters, which by relaxing the Fibres, dissolving the sizy Humours, diluting the Gouty Salts, and making them pass by Perspiration, have restor'd them to the Use of their Limbs.

XLI. Schol. It is capable of Demonstration, that the Force, Pressure, and Weight of the Bath Waters in Bathing, is sufficient to counter-act the Force of the Perspiration some Millions of Times; and confequently, that these Waters relaxing the Fibres of all the Vessels, and soaking thro' the Scarf-skin, and even thro' the Coats of the small Vessels, are introduced into the smallest Glands, and convey'd by the returning Veins into the Mass of the Blood, and by the Force of the Circulation, affift in opening the Obstructions thro' the whole Habit; and this accounts for the wonderful Efficacy of Bathing in white Swellings, Palsies, Scorbutic Drinesses of the Skin, Scropbulous Sores, and Tumors, Nervous Wastings of the Limbs, Sciatical Pains of the Joynts, cold Rheumatisms, and Weaknesses after the Gout. And this will still be more evident, if the Doctrine of the Attraction of Animal Bodies on the incumbent Atmosphere lately so much improved by Dr. James. Keil, be supposed true. It is many Years since I

was informed by a Gentleman of great Ingenuity, that having a good deal of Money on a Horse, which was to run for the Plate at Newmarket, and the Rider dying not many Days before the time appointed for the Course; he had undertaken to ride himself, and was obliged by Fasting, Watching, and Exercise, to bring down his Body to Horseman's weight: That after the Match was over, and he exactly weigh'd at the Post, he had rode immediately Home, and having drunk up a Pint of Chicken-Broth only, which might weigh about a Pound, got to Bed, and flept twelve Hours, and weighing again under the same Circumstances as before, found he had got in the whole about three Pounds, if I remember right: Whereby he concluded, That his exhausted Body had drawn in about two Pounds of the circumambient Air. This more manifestly shews, how the Bath Waters being hot, and consequently more active, may be drawn in, and get thro' the Pores of the Skin into the Blood Vessels, and there concur with what is drunk down towards those kindly Effects, Bathing commonly produces. And 'tis impossible to account for those copious, and profuse Sweats, Persons (if they lie long in Bed after Bathing) run into, but that their Bodies are fill'd with these Waters, like a foaked Spunge. But the weak, and low spirited, are never to be suffered to run into those: Which are prevented, by either not

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going into, or by being only a short Time in Bed.

XLII. It is fomewhat uncommon, that Bathing, which for many hundred Years wrought fuch Cures, as we have on Record, and fingly maintain'd fo long the Credit and Reputation of Bath, should for this last Century (in which only Drinking the Waters have been in Use) have fall'n into such Disgrace, that it is very far from being now the chief Thing People come to Bath for. Before Drinking the Bath Waters came to be so much us'd, fix'd or wandring Pains, Stiffness, or Contractions on the Tendons, Lameness, or wasted Limbs, Palsies, or Rheumatisms, were the chief Distempers People came to Bath for. But now fince, all other Chronical Distempers whatsoever, are reliev'd either by Bathing or Drinking: If People will Bath indifferently, without Advice, without duly preparing their Bodies, and cleanfing the Alimentary Passages, without any distinct Knowledge of their Case, their Strength, the proper Season of Bathing, or the Time they ought to stay in at once; there must necessarily happen (as there have happen'd) unlucky Accidents, which tend to discourage, and disgrace Bathing in general. On the other hand, if those who attend on Bathing will undertake more than they can manage, or duly tend at one Time; some must necessarily be kept in longer than their

their Strength will suffer, or their Case requires. These have been the Sources of the late neglect, and contempt of Bathing. But I am well fatisfy'd, was Bathing managed prudently and discreetly; there are but few Chronical Cases, in which it might not be useful, and in which it might not contribute with Drinking, and other proper Remedies, towards a Cure, or a Relief. If on the one fide, we do but confider of what Use, and Reputation Hot-bathing was amongst the Ancient Romans, and to what extravagant Expences they run to make their Baths convenient, or beautiful: If we confider, that most Chronical Distempers are attended with want of due Perspiration, and are therefore generally of the Cold and Phlegmatic Kind, and are always produced by Obstructions from sizy Juices: On the other Hand, if we reflect on what was hinted above, that the Hot-water in Bathing was fuck'd in, and attracted thro' the Skin, into the returning Veins, and was thereby put in a Capacity, to affift with what is drunk down, to wash off Obstructions of the small Vessels, to thin, and dilute the Blood, and Glandular Juices, to warm, enliven, actuate and nourish the wasted, and decay'd Parts: We shall readily conclude, that Bathing prudently managed, may be extreamly beneficial in most Chronical Distempers. That Bathing therefore may be performed in the best Manner possible, we must first distinguish

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guish those Distempers which might suffer by it, from those which will be benefited by it. And those are chiefly of three Kinds; (1.) Those Distempers which impair the Rational Faculties, or affect the Head with Pain, or Giddiness. Because Hot-bathing might fend Fumes, or Vapours upwards, and so increase these Distempers, such are Hysteric Disorders, Convulsions, Epilepsies, &c. While the Fit lasts, a Vertigo, or Headach from a foul Stomach, &c. (2.) Those which any ways affect the Lungs. Because Hot-bathing, increafing the Velocity of the Blood, may occasion a Pleurisy, or Peripneumonia, or a spitting of Blood in fuch Cases. (3.) Those which are attended with Inflammations, moveable Tumors, or with flitting Pains, fuch as the Gout, or an inflammatory Rheumatism; because Hot-bathing may increase the First, or translate the Latter. These excepted, I know no Chronical Case (but when in their last Extremities) which might not be benefited by moderate, and discreet Bathing, which might fcour the foul Tubes, open the obstructed Ones, increase the natural Heat, and encourage a due Perspiration. I shall conclude with sub-joining a general Rule, whereby to know if on Trial Bathing agrees, and has not been continued too long in the whole, or each fingle Time, viz. If it neither fink the Spirits, waste the Strength, nor weaken the Appetite, then it is certainly beneficial; for Hot-bathing being 12

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being of the Class of Evacuations, if it carry nothing off, but faulty Humours, it can produce none of the mention'd Effects; and if it evacuates these, it must needs be beneficial; and on the contrary, if it spends the nourishing Juices, and carry off more than the Party can well spare, it must be hurtful.

XLIII. It is observable from \* Guidot's Experiments on Bath Waters, That the Water either exposed to the common and open Air, or cork'd up and sealed in a Bottle, did for a much longer Time retain its Virtue of Tincturing a Purplish Blue with Nutgall in clear Frosty Weather, than in heavy Moist Weather, i. e. It retain'd its Chalybeat Principle much longer in Frost, and clear Weather, than in warm and moift Weather: The Truth is, no Body could have been long at Bath, but must have observed, that the Waters succeeded better, quickned the Appetite more, made the Digestions stronger, and rais'd the Spirits higher, in a clear, quick, dry Season, than in moist, warm, heavy Weather; and in Fact, in such a Season as this first is, they surpass all the Methods of producing fuch an Effect I have ever feen. To which two Causes concur, the greater Quantity of a subtile, active, Chalybeat Principle preserv'd in the Water, and the greater Tightness, and Firmness produced in

<sup>\*</sup> Vide Guidot's Experiments on Bath Waters.

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the Fibres by the cold, clear, dry Weather: But what I would chiefly observe from the mentioned Experiments, is, that the Chalybeat Principle is so fine, subtile, and active, that in a few Hours, nay Minutes, it will evaporate thro' a Cork, and sealed Glass Bottle, and may be retain'a by the meer Action of the circumambient Air, its Nitre, and different Gravity, for some considerable Time: Which shews, how this so subtile and volatile a Chalybeat Medicine, may be convey'd from the Stomach, even to the great and complicated Distance of the most minute Nerve, the most readily, and quickly: Which the elementary Water thus actuated, reaches much fooner, than any artificial Preparation of Steel poffibly can. And thereby becomes fo admirable a Medicine in relax'd Nerves, and Nervous Distempers, to which the Bath Waters, actuated by this subtile penetrating and powerful Chalybeat Principle, concur inwardly in Drinking them, and outwardly in Bathing, by their being drawn in thro' the Skin, into the small Vessels, as may be seen in the preceeding Articles, about Bathing: As to the small Quantity of Steel thus introduced, it feems generally sufficient for the real wants of Nature, but in Chronical Diseases, may be eafily supply'd by larger Doses of artificial Steel, when the other has prepar'd the way. certainly in giving both Steel, and Bitters, it's fafest, and most prudent to begin low, and with smaller Doses, and to rise, as the Pulse and Strength rises: And as Usage has made smaller Doses less effectual; I remember to have observed in some of the Great, and Sagacious Dr. Ratcliff's Bills, sour or sive Drops of Mynsycht's Tincture of Steel, with a few Drops of Elixir Proprietatis in a simple Water, prescrib'd as a Chalybeat Bitter, even to grown Persons. This I freely own, in the Novitiat of my Observations, I thought very simple. I have had good Reason to condemn my rash Judgment since, and to acknowledge it Prudent, and Judicious, to begin in some low Cases with such small Doses.

XLIV. The other Difficulty is, how the same hot Water shou'd relax contracted Fibres, as in the Gout and Rheumatism; and yet contract and brace relax'd Fibres, as in the Palfy and wasted Limbs. That the Matter of Fact is fo, is past all Doubt in these and many other Cases of Contraction and Relaxation. But to clear up this, we need only to confider what Contraction and Relaxation are. Since all the Fluids of the Body are contain'd in Vessels, Contraction can arise from nothing but from the Blood and other Fluids (or whatever is the Cause of Muscular Motion) their being retain'd and obstructed by their Siziness; or from some external Injury, in the Substance of the Muscle it self; whereby it becomes sul-er and sirmer, and so acts as upon its Office of

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of Contraction Relaxation, upon the other hand, is an Obstruction of the Nerves or Vessels of the Fluids, before they arrive at the Muscles; as is seen in Palsies, and the Nervous Atrophy of the Limbs; so that in both Cases, Obstructions are the Cause both of Contraction and Relaxation. Wherefore, whatever Medicine can dissolve the Siziness of the Fluids; open the Obstructions of the small Vessels; make the Perspiration sull and free, and brace the Fibres; will both contract Relaxations, and relax Contractions: And that these are some of the Essels of Bath Waters, has, I think, been made sufficiently appear.

XLV. If it be enquir'd into, what other Cases, besides the Gout, Bath Waters may be useful in; the Answer will be obvious from the Account now laid down; to wit, That they must be beneficial in all Cases, where Steel or Sulpbur is; that is, in almost all Chronical Cases whatsoever. In Acute and Inflammatory Cases, in all Cases attended with a strong, quick Pulse, no Mineral Water, nor Chalybeat Medicine can be proper. But in all other Cases (excepting those only attended with a Bleeding or Hamorrhage) they are not only fafe, but exceedingly beneficial. More particularly, their wonderful Efficacy has been often experienc'd in Cachexies, Scurvies; in the Stone, Rheumatism and Jaundice; in Hypocondriacal and Hysterical Affections; [64]

in Vapours and Melancholy; in Palsies, Epilepsies, and other Cephalic and Nervous Distempers; in Disorders of the Stomach and Bowels; Obstructions of the Liver and Gallbladder; in green and breeding Sicknesses; in Barrenness and Weakness after Child-birth; in Obstructions of the Monthly Purgations; and all other peculiar Diseases of the Sex. And truly, if a Person afflicted with a low, broken or tender Constitution, suffering under the tedious Pains and Inquietudes of any of the lingering Distempers now mention'd, where the Viscera or Bowels are yet found, wou'd know the fittest Place in Britain to spend their Life-time with the greatest Ease and Pleasure; take all the Advantages of the Place together, the Agreeableness of the Waters to the Stomach; the Certainty of their procuring a good Appetite, when it fails; and the no less certain Consequence thereupon, Freedom and Chearfulness of Spirits; the regular Way of Living; the Excellency of the Provi-sions; the Warmness, Cleanness and Neatness of the Housing; the Conveniency of the free, fresh and open Air of the neighbouring Downs for Exercise; the Easiness of the Amusements; and the Advantage of what Conversation one desires; I say, taking all these Advantages together, I can affirm, from near twenty Years Experience, without Suspicion of Flattery, or Fear of Contradiction, that Bath is the Place.

XLVI. Some wife and frugal People think the mere drinking of these Waters, for some Time, without taking any Medicine, either before or with them, may be fufficient to remove any of the Chronical Ails they are good for; but those, if they are really ill, in any other manner, except mere Loss of Appetite, are generally convinc'd, upon Trial, at their own Expence, that they neither ought to begin a Course of the Bath Waters, without a previous cleanfing of the Stomach and Bowels, lest they wash into the Blood through the Lacteals, by the perpetual Dilution of the Bath Waters, those Impurities, which constantly cleave to them; nor that they ought to expect a perfect Cure of a long-breeding and lingering Distemper, without the Assistance of those other Medicines which are reckon'd Specifick in the Case; and to which the Bath Waters are so pleasant and so affistent a Vehicle. For it is but Prudence to bring all the Forces one can raise, against so potent and so formidable an Enemy as a Chronical Diftemper.

XLVII. It is not possible to lay down a general Rule, about the Quantity of Bath Waters, which it is convenient to drink daily; that being to be varied according to some Circumstances of the Patient, and the Nature of the Distemper: Strong, full and large Boties

dies bear more Waters than tender, thin and lesser ones; the younger more than the elder; those of strong and firm, than those of weak and relax'd Nerves; those who labour under the Gravel and Rheumatilm, than those who are disorder'd in the Alimentary Passages, or are subject to Scorbutic or Nervous Weaknesfes, and the like. But in general, it were to be wish'd, that People who come to Bath for their Healths, drunk less daily than they commonly do; and allow'd more Time for a Chronical Distemper. I think it may be safely advanc'd, That any Quantity greater than an English Quart, in a Morning, drunk in two Hours Time, half a Pint every half Hour, is more than what is reasonable. For, drinking in this Proportion, all the rest of the Day, at Meals, to wit, in the Afternoon, and going to Bed, they must take down no less than five Pounds in about fixteen Hours; viz. two Pounds in the Morning, a Pint and an half with Wine at Dinner, half a Pound in the Afternoon, and as much at Supper, and at going to Bed. This every Body must fee is fully fufficient to answer all the Intentions of drinking Mineral Waters. A greater Quantity than this will ferve only to diftend and relax the Alimentary Passages; to force its way through the largest, and most patent Tubes; and to propagate the Circulation through the Branches and Inosculations of the larger Arteries and Veins, where the least FoulFoulness and fewest Obstructions can happen: So that it will scarce ever reach the finest Capillary Vessels, in which alone the Danger lies. And the late Ingenious and Learned Do-Stor James Keill \* has made it evident, that the most expeditious way of altering the whole Mass of the Blood, by Mineral Waters, is, by small and frequent Draughts. In most Cases a Pint in a Morning is sufficient, and in low Constitutions and Disorders in the Alimentary Passages, tending to Vomiting and Purging, half a Pint is enough; and whatever Quantity is to be drunk, 'tis always best to take it in small Quantities, and at good Distances, provided it come within the Compass of the Morning. What is drunk at Meals, tho' cold, yet being fresh, and not altogether drain'd of its Principles and Virtues, contributes near as much to the Cure, as that which is taken in the Morning. The Afternoon and Evening's Draughts are more arbitrary, and must depend upon the Observation of the Patient, as he finds them agreeable to his Stomach, and fit eafily or not: Where too great Quantities have not been fwallow'd down in a Morning, they are very proper, provided they be in Proportion to the Morning's Quantity, and never taken under four or five Hours after Dinner; and that at Night, not under two or three Hours after

<sup>\*</sup> Pag. 49. Tentam. Medico-Physic. Jac. Keill.

Supper; these Times being the most proper to assist the Digestion, and carry off the Remains of the Food. But the Truth is, as nothing is more necessary, in a Course of these Waters, than setting out right at first; so nothing requires more the Experience and Judgment of a Physician, than the accommodating the previous Preparations, the Quantities to be drunk, and the Medicines to be taken with them, to the Distemper and the Constitution of the Patient. For these once settled, the rest generally goes on successfully.

XLVIII. It is equally impossible to determine the most proper Season for drinking Bath Waters, as it is to determine the most probable Season, for falling ill of a Chronical Distemper Generally speaking, most Chronical Diseases enrage Spring and Fall: And Custom has made these Months, Seasons for the Bath: But the Waters are ever the same, no real Alteration having ever been observed in them from Times, or Seafons, tho' there may be some little Variation of their sensible Qualities, from the Variation of the Air, and Weather. In the hottest Weather, they are giv'n off for a Month sometimes, by those that have drunk them a long Time before. But a great many, especially those of the tenderer Sort, and of cold Constitutions, feel the best Effects from them in that very Month. And with some they are best in the coldest Wea-

Weather; supplying then the Inclemency of the Air, by their kindly Warmth, and pasfing best, when the Fibres are wound up, and shorten'd by the outward Cold, whereby the Circulation becomes brisker, and stronger. So that Custom and Conveniency arising from outward Circumstances, have made Seasons for the Bath, more than the Nature of the Waters themselves, or their Fitness to produce their benign Effects. The length of Time People ought to drink the Waters, is as little to be determin'd, as the most proper Season, or as the Duration of a Chronical Distemper. If they are of the Nature of an Alternative Medicine, (as they most certainly are) they are to be continued till they either difagree, or the Chronical Distemper ceases. And this last generally requires a Time in Proportion to the Inveteracy, and Obstinacy of the Disease. Hereditary Sharpnesses require more Time than acquir'd ones: Slighter Degrees of the same Case, less than more inveterate ones; nervous Distempers more than those confin'd to the Blood. A Lady of a low Hysteric, and weak Constitution, having ask'd the Famous Dr. Sydenham (as she told me) how long she might fafely take Steel; His Answer was, that she might safely take it for Thirty Years, and then begin again, if she continued ill. The Question might be as proper, if it had been ask'd, how long Time one might continue to eat, and drink: For in Lownels, and Difor-

Disorder, if Remedies be necessary, Nature will as fafely admit them, as Hunger will fafely admit of Food. I very well know, that Remedies in Chronical Distempers must be chang'd, when they become Familiar, and have no Effect: As the same kind of Food ought to be chang'd, when it becomes nauseous, and disgustful. But then this belongs not to the Question proposed, which suppofes the Waters have not abated of their first Benefit and Relief, but rather increase in them, and do better. And on this Supposition, there can be no doubt, that they may be sasely continued till a persect Cure is obtain'd, or they fail in their Relief. Some have drunk them feveral Years with Advantage, and many cannot live, and be well without them: As is evident from the constant Residing of several Families here for their Use. Whilst the original Disorder lasts in any Degree, and the Waters continue to relieve it, they may be used; but in all Cases, and Events, it is safest, and best to let Well alone.

XLIX. It has been alledged, that the Bath Waters drunk too long, disposes People to Fevers, and Inflammatory Distempers, by over enriching, heating, and exalting the Blood. But this Objection lies equally against all generous Foods, and enlivening Medicines. And indeed Temperance, and Moderation in every Thing necessary for the Support of Life, is best,





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At least it seldom comes to pass, that any one is much troubl'd with the Gout, but he has the Stone at last. And this shews that they are both owing to the same Conformation of Parts, and other general Causes. It is true, fome have fuffer'd violently by the Stone, who never had the Gout; but this may be owing to a special, hereditary Narrowness and Stiffness of the Urinary Passages, in respect of the other Vessels; and a particular unhappy Texture of Parts, as it happens to some other Organs in other Persons: For fat People have fmaller Vessels in proportion to their Stature, than lean. But in the general, it is pretty constant, that those who suffer long under severe Fits of the Gout, seldom escape the Stone. Dr. Cyprianus, the late ingenious Cutter for the Stone, had observ'd, that those who only drunk Malt Liquor were feldom ever violently afflicted with that Distemper: And among many hundred he had cut, he had never found one, who had only drunk Ale or Beer. Whether this was owing to the leffer Quantity of Salts in those Liquors than in Wine, or to the Slipperiness they induce upon the Bowels and other Vessels. or to both, I will not here take upon me to determine. But I believe the Fact is, both in the Stone and acquir'd Gouts, that those who only drink Malt Liquors, without Wine or Spirits, are seldom violently afflicted with either. And for the same Reasons it comes [74]

to pass, that the Gouts and Gravel of the Sex, are seldom so severe as in Men; they generally drinking less Wine, and feeding less of Fish and Flesh Meats. And that in the Gouts, both of Men and Women, who drink no Wine nor Spirits, any little proper Medicine has entirely kept off the Pain, and prevented the Fits. I know an ancient Gentleman, formerly treated pretty roughly by the Gout, who drinking only Malt Liquors, has, for feveral Years, with certain Success, entirely kept off the Pains and Fits of the Gout, by taking only every Morning, regularly, a Pint of warm White Wine Whey, to encourage Perspiration: Which when he neglects to do, they as certainly return. We may conclude, I. That fince the Gout and Gravel Stones are, as to their effential Qualities, much the fame; and fince 'tis hardly possible to account for the breeding of the Stone, but from a particular Narrowness and Stiffness of the Urinary Veffels, and an abundance of fuch Salts in the Fluids; it is highly probable that the Gout must proceed from the same general Causes: And this is some kind of Confirmation of the two first Propositions laid down in the beginning of this Discourse. 2. The fame Method and Medicines that have been deduc'd from the first two Propositions. for relieving Gouty Persons, in the Intervals of the Fits, will likewise serve for preventing the Increase of the Stone and Gravel; as we

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are certain they do from the best Experience and Practice in this Case. I will now go on with my purpose, and consider an irregular Gout, fix'd on these three great Instruments of Human Life, the Head, the Stomach, and Guts.

LII. When the Gout has feiz'd on the Head, it is to be treated as any other violent Headach, or as an Inflammation on the Brain, or its Membranes; by bleeding at the Arm or Fugular; Cupping on the Back: Blistering between the Shoulders, but especially on the Ancles, to give the Gouty Humour a Vent downwards. In young and strong Constitutions, Mercurial and Antimonial Vomits will do Wonders, tho' they are seldom to be ventur'd upon in any Constitution above Forty. The Intention here to be had in View (as in all other irregular Gouts) is to expel the Gouty Humour outwardly upon the Muscles or Joynts, and to fix it there. Wherefore in order to carry it to as great a Distance from the noble Organs as may be, a free Passage is to be open'd to it on the Limbs, by bliftering the Ancles and Wrists; and to promote its Conveyance thither, gentle Stomach Purgers are to be pour'd down continually, two or three Spoonfuls every third Hour, till the Effect is obtain'd. And for this end, I recommend principally Tincture of Hiera Picra, with compound Spirit of Lavender, and a few Drops of Tincture of Snakeweed, and Tincture of

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Diambra, as being one of the most powerful Expellents, and an excellent Strengthner of the Stomach and Bowels. Its common Mischief is little to be minded here, for the forceing Blood or the Piles will carry the Gouty Humour along with it; and these Disorders are but Trifles in respect of an irregular Gout. This Method will either spend the Gouty Humour, or turn it to a regular Fit. But here Care is to be taken that the Medicines be not too hot, especially in young fanguine Complexions, lest an Inflammation on the Brain, or its Membranes, shou'd turn to a Phrenzy or Fever: But there is less Danger of this, because the Gout in the Head seldom happens to the younger, except through much and long Intemperance.

LIII. The Gout in the Stomach is a common and less dangerous Case; for the Gout seldom comes on and goes off without touching there by the way. In the slight Touches of it, any little Stomach Purge will set it a packing. But it is more obstinate towards the Decline of Life; when it settles in a constant Pain, nauseating and kecking in the Stomach. Vomits are reckon'd dangerous in the Gout, less they shou'd derive the Humour on the Stomach: But there can be room for no such a Suspicion here. Wherefore upon the first Seizure of the Stomach, a Vomit is instantly to be administred, and repeated according to the occasion

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casion of the Case: After that Hiera Picra, as is before caution'd and qualify'd, with a hot Sinapism, or Blister on the Ancles: And last of all, the highest Cordials, and most generous Wines, may be freely indulg'd, without fear of Inflammation. Among the Cordials, I wou'd recommend the Electuarium de Ovo, as containing Campbir (the most constant and active Diaphoretic, and the most useful one for that purpose) and some other of the richest Cordials. After all this Management, shou'd the Gout still continue in the Stomach, and become habitual (which it feldom does after such a Method taken in time) nothing but a long Course of the Bath Waters, with Steel, Bitters, and gentle Stomach Purgers, a regular Diet, and proper Exercise, can effectually cure it.

LIV. Some Persons, ignorant in the Practice of Physick, have made a Difficulty about the Pitness of Vomits; when the Disorder is come to perpetual Reachings, after Cordials, and Stomach Purges have been try'd in vain. But the weakness of such Prejudices, may be shewn to the Evidence of a Demonstration: For when there is a perpetual Reaching and Vomiting, that neither Food nor Physick will stay: After a previous Bleeding to relax the Solids, lest straining should burst the small Vessels, a gentle Vomit, such as the Indian Root is, is not only proper, but even absolutely

lutely necessary. Proper, because Vomits do, the most effectually of any Thing, throw every Disorder out of the Habit, and so are the most probable means to expel the Gout on the Extremities, as they do most powerfully promote the Eruptions of the Small Pox. Measles, Miliary Blisters, and other acute Distempers of the Skin: (And here I am obliged by many Ties, to do Justice to that very worthy and skilful Gentleman, Sir David Hamilton, Physician, lately deceas'd, who in our conjunct Attendance on a Person of Quality in this last Distemper, did, to my great Satisfaction, so readily foretel every succeeding Change, and so aptly furnish out a Remedy for every Accident, as did abundantly shew it Familiar to him, and justify the History and Method of Cure publish'd by him, of this tedious, and dangerous Disease, the Miliary Fever. A Disease, tho? less common, yet as various, and as nice, and much more tedious than the Small Pox it felf.) And as they equally facilitate the Birth, and the Stone; in all which Cafes, if Nature does not the Work promptly, Art is obliged to supply it with this Remedy. Necessary, because when the common Means have fail'd, as is suppos'd, there remains only to cleanse the Stomach from the sharp Humours, which in all fuch Cases adhere to it, by provoking it unto these Convulsions; and to dispose it to receive, or retain either Food, or the other Means, for the recovery of the

Patient. Besides, since it is suppos'd, the Gout has already seiz'd the Stomach, clean-sing it by a Vomit can never six it more there; fince it is likewise supposed, the Gout is no where else at that Time: And that all the Humours are then lodg'd in the Center of the Body. But as it doth in all other Cases. and most certainly in the transfent Fits of the Gout in the Stomach, it is then the most likely Means to promote the Gout on the Extremities. Lastly, I know no Rule a Physician has to direct him in such Cases, but following the Indications of Nature, and in what Case soever perpetual Vamitings and Reachings happen. If Circumstances do not forbid it, Nature points out as clearly its Relief from a gentle Vomit, as it does Rhubarb in a Diarrhaa. The general Prejudices against Vomiting arise from an Ignorance of its Mechanism, and the Way 'tis performed. I will here set down in English, Tournfort's own Words, as he gives the Account of it, in the Preface to his excellent Piece, of the Plants that grow about Paris. Mr. Chirac (fays he) demonstrates, in a manner obvious to our Senfes, the Action of the Stomach, and of the Organs imploy'd in Vomiting. " Having made " a small Wound along the Rib that lies over " gainst the Navel of a Dog, who had swal-" low'd some corrosive Sublimate, and was making most vehement Endeavours to Vomit; he slipt in his Hand thro' the Aper[ 80 ]

" ture, and took hold of the Stomach, and " there he found, that the Stomach it self " felt no manner of Force, or Violence: But " that the Diaphragm, and the Muscles of the " lower Belly, contracting themselves both at the same Time in an Instant : With incre-" dible Force, squeez'd the Hand that held " the Stomach." From this Account, it is evident, the Stomach it self suffers no more Violence in Vomiting, than a Vessel doth, that is cleans'd by pouring Water into it, and then pouring it out again; for the whole Stress of the Vomit lies on the Diaphragm, and the Muscles of the lower Belly: Organs strong in themselves, seldom or ever subject to any Disorders, and if at all imploy'd in Digestion, at least in so gentle, and uniform a Manner, as can never be suspected of wearing them out. The Ancients were so possessed in favour of Vomiting, that Hippocrates himself recommends it to gross, well Persons, to vomit three Times a Month to preserve their Health. And to lean well Ones, to vomit twice a Month for the same Purpose. Whatever be in this, certain it is, where continual Vomitings and Reachings are the Symptom, a gentle Vomit can never be amis; when Bleeding has been premis'd, and Circumstances forbid it not. It were to be wish'd, that the Modern Method of gentle Stomach Purges, with interspers'd sweetning Powders (as they are called) could supply the Place of Vomits, because of the

the Roughness of their Operation, and the expence and hurry of Spirits they bring on weak People. But where there is an overflowing of the Gall, or any Quantity of green, yellow or black Choler lodg'd in the Bowels (which is generally the Case of Hysteric, and Hypochondriac Persons, and of those troubled with nervous Distempers) by such a Method you will but turn Birdlime, into Plaister of Paris. and you may purge out the Guts, before you move these Humours: And even in other Cafes, where viscid Phlegm, or sharp Crudities are the Causes of the Reachings, Purges will fignify very little towards carrying them off. These viscid Humours having too long a Journey to march, by that Course. As to Rhubarb's purging of Choler, 'tis a meer Deceit, the Colour of the Medicine giving it that Tincture, which in working is reckon'd Choler. For the Contents of the Bowels take their Colour from that of the purging Medicine: Or the Colour arising from the Action of the Salts, contain'd in the Medicine, upon the Salts contain'd in the Guts.

LV. The Gout in the Guts, on its first Seizure, may be easily treated as a bilious Cholic; only the Opiats, commonly and justly given in the Cholic, are not here to be us'd, but in the last Extremity. But this Disternper ought to be treated altogether in the manner prescrib'd in the sormer Section, about the Gout in the Stomach.

M LVI.

LVI. There remains but one Distinction more of the Gout, and one which has not hitherto been much confider'd: For as the Cholic, or Asthma is, so the Gout may be, divided into the Humorous and Nervous; tho' this Distinction depends more upon the Complexion of the Patient, than the abstracted Nature of the Distemper. The Humorous Gout happens only to People of groffer Habits, more robust Constitutions, and more stiff and fpringy Fibres, and is the Gout which I have been hitherto treating. All I can further add to what has been faid, is, that under the Fit White Wines are more eligible than Red; because those part more readily with their Spirits, and are less astringent than these. And for the same Reason in the Intervals, the Red is preferable to the White: Tho' neither of them, in either Case, be useful or necessary, but because Custom or Habit, which it is not fafe to alter fuddenly, has made them fo. For in all the Ottoman Empire, where little Flesh Meat, and no Wine is us'd; and in Spain, where they use them very moderately; and among the wild Mountaineers in the Northern Countries; and the lower Rank of the People in every Country, where they can procure neither, there is little or no Gout. Rubbing the Part affected with a foft Hand, or warm Napkin, as strongly as the Patient can bear it, is the ready way to make the Humour perspire in

the Fit. And cold Bathing, and rubbing with a Flesh Brush, Morning and Night, are some of the most certain outward Means, to bring Strength and Nourishment into it, in the Intervals.

LVII. Schol. I have had some Reslections about the Preference between old French Claret, and old Portugal, or Spanish Wines, in the Intervals of the Gout. The generality give into the latter Opinion: But I very much doubt, if with any just Reason, or certain Observation. Without all peradventure, French Wine will more readily throw out a Fit of the Gout, than those others. But that, in my Opinion, is so far from being an Argument against it, that it is in its Favour; for certain it is, that a fingle Bout, or two, of hard Drinking in French Claret, (and thefe are more than sufficient to throw out a Fit of the Gout) cannot store the Blood with such Plenty of gouty Matter, as is sufficient to furnish out a Fit. Nature works by slower Degrees, and such a drinking Bout can no otherwife produce a Fit of the Gout, than by the Wine's Astringency, strengthning the Stomach, and bracing the Fibres of the Vessels, and by its generous warmth, supplying plenty of Spirits, the Force of the Circulation becomes such, as to be able to drive out the dormant, gouty Humour that lay dispersed thro' the Habit. And if there be any faulty Humour in the Body, I think it a great Advantage to have it M 2 thrown

thrown out, upon its proper Seat. It is ob-jected likewise, that French Wines have more Tartar than those others: But I cannot tell, if that Observation be just. For tho' more Tartar be found in the Vessels, containing French, than Portugal or Spanish Wines, that argues only, that the French throw off their Tartar more readily than those others. And tho' upon Distilling French Wines, there remains more Tartar than in Distilling those others, yet to compensate that, there remains in Distilling Spanish, and Portugal Wines, a burning corrofive Oil, infinitely more destru-Elive to the Stomach, concoctive Powers, and small Vessels, than any Tartar can be; and which is not to be found in distilling French Wines: And I very much question, if Tartar be so unfriendly to Humane Bodies, as is imagin'd. If so, we shall lose a great many fine Medicines. Add to all these, that in distilling Portugal, and Spanish Wines equally strong, and of an equal Quantity, the French yields abundance more Spirits, of a higher, and brisker Nature, and of a less hot, and burning Quality, than those others. The rotting of the Salts in any of these Wines, is ridiculous; the Salts being of a much more durable Nature than the Spirits themselves. All that Time can do for them, is by the repeated Fermentations to lessen the Size of the Salts, and Precipitate towards the Bottom of the Vessel the grosser Parts, so that the light[ 85 ]

er may be more easily separated from them: And on this Consideration, the French has the Advantage likewise. For by reason of its comparative Lightness, and its more readily parting with its Salts, it sooner becomes ripe, than the Spanish or Portugal Wines. Those who live very temperately, and drink but a few Glasses after Meals, may content themselves with old Spanish, or Portugal Wines: But the Gouty, who live more freely, ought certainly to chuse generous Claret: Tho' it be Custom only, makes either necessary in any Quantity: And they who are averse to, or sly Pain at any rate, must content themselves with old Portugal Wines only.

LVIII. Having mention'd Cold Bathing, I am the more willing to fet this fo fafe and universal a Mean, for the Recovery of the weaken'd Parts, after a Fit of the Gout, in a clearer light; because a groundless Jealousy of the Danger of its throwing the Gout inwardly, has made it universally disus'd. Nothing made a greater Noise upon its first Restoration, and nothing cou'd have funk lower in its Reputation fince, than Cold Bathing: And it will always happen so in Things fitted to the vulgar Capacity, when they are universally prescrib'd, without Distinction and without Choice. Those who know how greatly Foulness and Uncleanliness promote Epidemical, Pestilential and Infectious Distempers, can only

only tell what Cleanness contributes to Health. The Eastern People (whose Laziness, in other Things, is owing to their Climate) have found cold Bathing and Ablution fo necessary to their Health, that they have made it a part of their Religion, as it is a Precept of a Religion of a nobler Extract, from whence they borrow'd it. If the modern Doctrine be true, as I really think it is, that the smallest Fibres, or those of the last Division, in animal Bodies, benot open and pervious, but folid; then it may be affirm'd, that warm Water (I mean pure Element, endu'd with no Medical Principle) by the active Power of its Heat, must necessarily relax such Fibres. And that cold Water, from the Nitre which produces its Coldness, must necessarily contract them. The Tumor of the Gout, like other inflammatory Swellings, is owing to an Obstruction, or to the Gouty Humours flowing faster by the Arteries, than it can be receiv'd by the Veins; the smallest or Capillary Vessels are thereby extended and stretch'd, beyond their natural Power of Restitution; so that when the Gouty Humour is spent by Perspiration, or driven into the Veins by the successive Stroaks of the Circulation; the Obstruction remov'd; and the Pain entirely gone off; the Vessels continue thus widen'd and stretch'd, beyond their Power of Restitution, for a long Time after. And this is the fole Cause of the long and tedious Weakness on the Part after the Fit is over; which wou'd yet conti-

continue longer, did not the Coolness and Pressure of the ambient Air, and the now sufferable Weight of the Cloathing, give the first Impulses to the Fibres towards their contracting themselves again. Now nothing in Nature can so readily or so certainly bring this about, as Bathing in cold Water: For the Nitre in the Water, which is the Cause of its Coolness; and also the uniform equal Pressure upon the Part, which arises from its Gravity and Fluidity, concur to communicate to the Fibres a strong and lasting Impulse towards restoring themselves to their natural State of Contraction. And the Gouty Humour now being spent, and the Obstruction entirely remov'd, as is suppos'd, how can any such Humour be translated upon another Part, by cold Bathing, more than if the Person had never had the Gout? Now to make this Remedy still more effectual, after a previous Course of cold Bathing, cold Pumping on the Part, by the Force of a Pump, or the Fall of Water from a Height, may be conveniently us'd: The wonderful Efficacy of which is no less certain here, than it is in White Swellings on the Joints, where, I think, it is a never failing Remedy. I am very well inform'd of the Cafe of a very considerable Person, who for many Years before, being tormented with constant and uninterrupted Pains of the Gout, Summer and Winter, by daily Bathing in a Tub of cold Water, has, for these several Years

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by-past, brought them to regular and periodical Fits, at the Cardinal and Critical Seafons only; and of no longer Duration than usual. I know also an ingenious Physician, who, after a Fit of the Gout, goes daily into the Cold Bath, till the Part has recover'd its natural Strength, which constantly happens in much less time than it wou'd do otherwise. And many others, who are considerably Strengthen'd, and preserv'd from catching Cold, by cold Bathing in the Intervals of the Gout; tho' this Practice is very cautiously to be gone about by the Old and Weak.

' LIX. The Nervous or Flying Gout (both which I take to be the same, and to differ from the windy Gout, which is nothing but a Hypochondriacal or Hysterical Symptom) is owing to the Weakness, Softness, or Relaxation of the Nerves of those Persons who labour under it. All the Solids of the Body are made up of small Threads or Filaments of disferent Natures and Textures. They are divided into the Fleshy, the Nervous, the Membranous, and the Bony; and make up the folid Substance of the whole Animal Body: But all of them agree in a greater or lesser Degree of Springiness or Elasticity. And it is observable, that some of the most perfect springy Bodies, are made of animal and vegetable Substances; fuch as Ivory, Ebony and Whalebone. Wherein the general Nature of Elasticity

city consists, or what is the particular Cause of the eminent Springiness of animal Fibres, is as hard to explain as conceive; which notwithstanding, is the noblest Instrument of all the Actions and Functions of an animated Body. All the Attempts hitherto made to discover the particular Nature of a Contractile and Distractile Animal Fibre, to me seem infufficient and conjectural. Lewenhoeck has difcover'd, by his Glasses, that the smallest Fibre of an Elephant is not bigger than that of the smallest Insect: And if the modern System of Generation be just, to wit, that an Animal or Plant comes from another leffer one; then Growth is nothing, but the unfolding the original Membranes and Fibres: And the Length of every Fibre is the same in the youngest, as in the full grown Animal or Plant. So Growth and Motion both, that is, the whole Business of the Animal Life, is owing to the Springiness of these Fibres. The best resemblance I can make of them, is that of a long Hair, or fmall twifted Gut, which, when ftretch'd to any Length beyond its natural State, will restore it self again to its former Dimensions. And in this Contraction and Restitution of an Animal Fibre, the greatest Mysteries of the whole Structure confist. As there are some People who have hard, gross, stiff Hair, with a strong Spring; so there are others, who have foft, fine, weak Hair, with a feeble Spring: And generally speaking, as the Hair is, so the Threads,

Threads, Filaments and Fibres of the Body are. Those whose Fibres are soft, fine, weak, and of a feeble Spring, are generally faid to be of weak Nerves, and liable to Nervous Distempers. And here we may observe the Difference between more tense and stiffer Fibres, and more springy and elastick ones. All the Fibres of the Body are in a State of Distension, as is evident from the gaping Lips of Wounds. Two Persons may have Fibres of the same Degree of Springiness and Elasticity; and yet in their natural State, and original Formation, the Fibres of the one may be more stretch'd, bent and distracted, and consequently more stiff and tense than those of the other; whereby the more stiff or tense Fibres making a greater Resistance, and being with more Difficulty stretch'd and widen'd, will give more Pain, when a gross Fluid passes thro' them, than less stiff or tense Fibres will. Which gives an Account why, of two Perfons, both of them of weak Nerves, the one shou'd have the Gout, the other be free from it, Persons of weak Nerves must necessarily have less Strength, a weaker Pulse and Digestion; a flower and more imperfect Circulation of the Fluids, and a less free and perfect Perspiration; and if they happen to indulge in ftrong Meats and generous Wines, they must become subject to Hysteric, Hypochondriac, and Cephalic Disorders. But if, together with weak Nerves, a greater Degree of Tensity or Stiff[ 91 ]

Stiffness be join'd, under the same Circumstances, they will be liable to Gouty, together with the foremention'd Disorders. But by reason of the natural Weakness and less Original Springiness of their Nervous Fibres, the Fits of these Gouts will be less painful, and more constant.

LX. Schol. I have a long Time suspected the Reasonings of Physicians, and the Accounts given by them of the Nature of Diseases, that were founded on Nervous Juices, and Fluids, their Motion, Nature, and Qualities: And yet it will be a great Bawlk on the Theory of Distempers, the boasted Politeness, and the admir'd Fineness of the present Age has advanc'd, should there really be no such Fluids in Animal Bodies. Certain it is, the Ligature on the great Trunks, and Bundles of Nerves, show no fuch Thing. Let it continue ever so long, there appears no Swelling above, towards their Origin, and let them be squeez'd, or milch'd ever fo long downwards, to the Ligature: yet no Tumor appears. The contrary of which happens to the Arteries, and Veins, in the like Circumstances, but on the opposite sides of the Ligature: and must happen to the Nerves, was any sensible Fluid contained in them. The resemblance between the Cortical part of the Brain, and an Alembick, or Still, is too gross to support any Verisimilitude, and there is no Heat in Animal Bodies, sufficient N 2 to

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to raise a Spirit out of their gross Fluids, however concocted, which require the greatest Heat to be fent over the Helm: And all that Animal Concoction feems to do, is either by Attrition, to break the Food into smaller Parts, or by Fermentation with other Liquors, to difsolve the Union of its Parts. Neither of which ever rises to that Subtilty, as to render gross Bodies Imperceptible. The most subtile Fluid we observe separated from Animal Juices, by the meer Laws of Secretion (which is all we conceive is done, to separate the finer Parts of Animal Fluids from the groffer) feems not to refine much above the white Water Hyfteric Persons make, or the Steams emitted by Per-Spiration, which when condensed, are fensibly thick and clammy, and very much unfit for the Uses ascrib'd to Animal Spirits. Moreover, if we consider the Make and Configuration, the best Microscopes give of Nervous Fibres, we shall find them neither fill'd with any Juice, nor pervious to receive any: For that milky Substance we observe about them, seems defign'd by Nature, to preserve them moist and glib, for their Mechanical Functions of Elasticity, and is, by far, too gross to answer the ends of Animal Spirits. Lewenhoeck, after having prepar'd Animal Fibres of several forts, for his Observations, found them by the Microscope compos'd of many Hundreds of leffer Fibrils bound together, by a Spiral One; which Fibrils were fo small, that Six Hundred

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dred of them (if I remember right) came to make up the Bigness of a Hair of the Head, and could never observe them pervious, or hollow: Lastly, If we consider the Nervous Fibres, as so many Cylindrical Tubes, we shall not find them of a Form, Analogous to that of those which we sensibly know are contrived by Nature to carry a Fluid (and we well know Nature is uniform in her Operations, and constant to her self) I mean the Arteries and Veins, whose Figure is certainly Conical: So that by their continually lessening Diameters, a greater Action is impress'd on the Springy sides of the Vessels, by the included Fluid: Which by Re-action being return'd on the Fluid, it is thereby promoted on its forward Motion, and so the Circulation is performed, else the Juices would putrify, and stagnate. Whereas in Cylindrical Vessels, let their Sides be ever so Elastic, the Resistance from the advanc'd Fluid being so great; it is impossible the Motion of the Nervous Juices should be propagated with a sufficient Velocity, to the distances they run; let the impress'd Force, at its first setting out be what it may be with any Reason suppos'd. Add to all these, that since the Nerves are suppos'd to be the Medium of Sensation, as well as the Instrument of Motion; if they are pervious, and full of a Fluid, it is absolutely impossible to conceive, how they can so instantaneously convey their Impressions in contrary Directions back[ 94 ]

backwards, and forwards. But what feems to me an Experiment of the Cross, as it is called, or a Fact obvious to the Senses, which shows the Solidity and Imperviousness of the Fibres, is Dr. Gliffon's \* Experiment. " Pro-" vide, fays he, a Glass Tube, of a proper Width " and Length: To whose upper and outward " Side near its Orifice, another Tube like a " Funnel, may adhere: Into the Orifice of the " larger Tube, let a Brawny strong Person " thrust in his whole naked Arm, and the " Orifice be so fasten'd to the Shoulder, that no " Water can run through it, then let so much "Water be pour'd in, through the Funnel, as " to fill the greater Glass Tube, and to rise to " fome Height in the Funnel. These Things " prepared; let the Operator, by turns, " work and strongly move all the Muscles of the Arm, and by turns, let them rest: In " the Time of the Motion, and Working of " the Muscles, the Water will fink in the " Funnel, and in the time of their Rest and " Quiet, it will rise again. Whence it will " appear, that the Muscles, instead of swel-" ling and being inflated, during the time of " their Action, are lessened, contracted, and fink " into their own Substance, for did they swell, or were inflated, the Water in the Funnel would rife, instead of finking. So far Glif-

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<sup>\*</sup> See Glisson de Ventriculo & Intestinis.

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son. And indeed it is evident to the Senses, that while the Muscles of the Arm are in violent Action (as in playing at Foyls) the superficial Veins and Arteries swell over all the Muscles, which proceeds from hence, that the Fibres of the Muscles being drawn in, and finking into their own Substance, press on the internal Arteries, and leave the superficial ones free and loofe quite round: Whereby the Blood, finding a greater Resistance, slows more slowly in the internal Arteries, and is more plentifully derived into the superficial Arteries and Veins, through their lateral Branches. In a Word, all muscular Action is perform'd by the Muscles being harden'd, and compress'd inwardly into their own Substance (witness the Heart, which being Red in its Relaxation, turns Whitish in the Contraction) which cou'd not possibly happen, were any Fluid, how subtile soever, deriv'd through the Fibres, to assist in the Action of the Muscles. Those who desire to see more on this Subject, may confult the learned Deidier, Professor of Physick at Montpelier, his Discustion of this Question. From all which, I am apt to think, that both Sensation, and Animal Motion, are performed by the Action of an extrinsick Principle on solid and springy Fibres, as the great Sir Isaac Newton feems to hint.

LXI. Coroll. Since then perfect and intire Health consists in the Tightness, proper Tone,

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and Springiness of the folid Fibres, as well as the due Fluidity, uniform Constitution, and full and free Circulation of the Animal Juices, as is evident from the foregoing, together with the immediately preceding Observation: We may thence learn, what is necessary for preferving it so, as long as Nature has contriv'd it to last. To wit, a proper Regimen of Diet, for maintaining the Fluids in such a Condition, together with a due Degree of Labour and Exercise, for preserving the Tone and Spring of the folid Fibres. Neither will be ever fufficient alone, without the other; for let our Diet be ever so exact and proper; our Fluids ever fo sweet and duly temper'd; the Circulation ever so full and free; yet if the solid Fibres become resty and disus'd, loaded with useless Particles, soak'd in superfluous Fluids, relax'd and flabby, the Juices will at last stagnate and corrupt, and the whole Oeconomy languish and suffer. But if to a proper Regimen and Diet, due Labour and Exercise be joyn'd, the Muscles will be habituated to their proper Actions, the Fibres freed from a foreign Load, all undue Humidity will be drawn off by Perspiration, the due Temperament of the Fluids will be preserv'd, and the proper Tone and Spring of the Solids maintain'd. And here we may observe the Wisdom and Fitness of the first Command, to New-fall'n-Man, of his infinitely Wife Maker and Master, which is commonly look'd upon, as a Curfe, rather than

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than a wife Precept, to wit, \* in the Sweat of thy Face shalt thou eat Bread. If the Rich do not in some Measure imitate the Diet and Labour of the Poor, and in some Degree keep to the Letter of this Precept, their Riches will become a real Curse, in as far as Health is more valuable than Wealth.

when through I and LXII. Coroll. Hence also we may learn, what Vapours, Nervous Disorders, Hysteric and Hypochondriac Affections, truly and properly are, to wir, an undue Relaxation, Loofeness, or want of a proper Tone, or Spring, in the Threads, Filaments or Fibres of the Solids, either from a natural Weakness, or an Ignorance, or Neglect, of a due Regimen of Diet, and proper Exercise. Let us but suppose the Fibres of the Solids are relax'd, loofe and weak, and that a proper Regimen of Diet is not obferv'd, nor due Exercise prosecuted. 1. The first Consequence will be, that the Digestions will be imperfect, grofs, and glewy. 2. The next, that the Stomach and Guts, their Glands and internal Coats, will become loaded and distended with Wind, Phlegm, Choler, and Crudities, And, 3. Thereby sharp, sour, and ill-condition'd Fumes, Steams and Vapours, will be constantly ascending to the Brain, to cause Head-aches, Giddiness and Oppression of Spirits, to discom-

<sup>\*</sup> Gen. 1. Ver. 19.00 ; elelle V llam edt ni eno

pose its natural and usual Functions, and to paint falle and delusory Images, and Ideas on the Imagination. And this is the first Stage and Degree of the Vapours and Nervous Diforders, properly fo call'd, where the Causes thereof are confin'd to alimentary Passages. But these Causes being continu'd, and proper Remedies neglected, when through Time, these Fumes, Steams, Wind and Vapours, get with the unconcocted and viscid Chyle, through the Lacteals, into the Blood, and other Juices: and the Perspiration, by its Glewiness, cannot pass by its Drains, over the Surface of the Skin, nor the other Secretions be duly made; there will follow from the State of the Stomach and Bowels; 1. Loss of Appetite, four and sharp Belchings, continual Heartburnings, Vomitings of green or black Choler, Nervous Cholicks and Asthma's; and at last, a total or partial Obstruction of the Lacteals, and thence Leanness, Wasting and Death. 2. From the State of the Juices, and the Glewiness of the Fluids, there will ensue a Circulation only, through the greater Arteries, and Veins, and their lateral Branches, whereby the Extremities will be render'd cold and chilly, a Sensation, like that of cold Water fprinkled over the Body, will be often felt, drilling along its Surface; fleeting and unconstant Pains in the Limbs, like that of a cold Rheumatism, through Crudities and Obstructions in the small Vessels; and windy Tumors, and

and White Swellings on the Joints, especially on the extreme Parts. 3. And lastly, when these sharp and acid Steams, Fumes and Vapours, have made their way through the Glands, or sides of the smallest Vessels into the Cavities of the Brain, the Interstices of the Muscles, and between them, and their involving Membranes; there will follow grievous and constant Head-aches, perpetual Giddinesses, tearing Punctures over the Eye-balls, Hysterick Fits, Convulsions, Epilepsies, and Apoplexies, and all that black Lift of Miseries and Tortures, which often terminate in a total Alienation of the Understanding, different according to the different Original Complexion; dark Horrors, or Despair, which tempt the distracted Sufferer to make away with it felf, or a fudden end of its Miseries, in the end of its miferable Life. It is certain tho', this last Stage feldom or never happens to any one, but through a flagrant and obstinate neglect of proper Remedies, in due time, in the Patient, or a supine Carelessness in the Friends. As it is also certain, that the first Stages of this Disorder may arise from an Original and Hereditary Weakness in the Solids, any violent Evacuation or enormous Passion of the Mind, which the Patient cannot prevent, or be justly blamed for: But the common and acquired Vapours, may be very properly describ'd, in that Expression of Holy Write

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of Idleness and Fulness of Bread. The Causes thus known, the Prevention and Cure will be natural and easy, which I shall have occasion to set forth hereaster.

LXIII. Corol. From this Account of the Ner. vous Gout and other Nervous Distempers, ?tis plain, all Evacuations (except the most gentle) must be prejudicial in them. Gentle Vomits, as they cleanse the Stomach and Bowels, and principally as they free the Nerves from all extraneous Bodies, and increase the Perspiration, by the violent Convulsions and Contractions of the internal Muscles and Membranes; Blisters, as they open the Obstructions of the small Vessels, by their external, and thin the fizy Juices by their internal Efficacy; I say, both these Evacuations may not only fafely, but with great Advantage, be us'd in Nervous Cases. But all violent Purges and excessive Bleedings, are religiously to be abstain'd from, as increasing the original Weakness. Purges in People of weak Nerves, in Chronical Cases, carry off a great part of the Nourishment of almost three Days. Vomits, on the contrary, carry off only those Crudities, that fend up to the Head and Nervous System, the noxious Fumes and Vapours that cause their Misery. Purges relax and weaken the Fibres of a natural and necessary Function, to wit, those of Digestion: Where-

as Vomits can but weaken the Action of Muscular Fibres, less us'd, strong in themfelves, and not so necessary to Concoction; as is evident from Monsieur Chirac's Experiment about Vomiting. Purges carry off little but what wou'd otherwise pass off, in time, by the natural Course of the Peristaltic Motion; and generally leave behind them what wants the inverted Motion, as they found it. Whereas Vomits pump up those Crudities that Nature it felf wou'd (gladly, so to speak) throw up, by the same Organs, the same way Nature tends. Lastly, Sour and Acid Humours, lodg'd in the Stomach and Guts, must necessarily weaken both, more than either gentle Vomits, or Purges possibly can; with this Difference tho', that a very gentle, natural, or artificial Purging, continu'd for any long time, in Persons of weak Nerves, shall both weaken the Person, and waste the Muscular Flesh. Whereas you shall find, after feveral Months daily Vomiting, in a Sea Voyage, a Day or two's Refreshment ashoar restores the Person to a greater Degree of Alacrity and Strength than before: Whence it comes to pass, that Persons of weak Nerves are so much reliev'd and rais'd by Vomits: and, on the contrary, so much funk and depress'd by rough and strong Purges in Chronical Cases. What farther is to be expected in fuch Cases, is to be done by a regular and strict Diet, fitted to the mere Necessities of Na-

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Nature. Strengthners of the digestive Faculties, (and here the Bark and Steel claim the first Place, as being the most certain Strengthners of weak Nerves) gentle and constant Exercise, as incouraging the Perspiration:

«Aromatic and Spicy Bitters, Volatile and attenuating Medicines, and whatever may be thought sit to nourish, comfort and support the Animal Functions.

LXIV. In low, Hysteric, Cephalic, and Nervous Cases, nothing is to be done without an uniform low Diet, and a strict Regimen; and that of the lightest Foods, and the least Quantity. And the Reason is, the whole System of the Nerves, and the Fibres of the Solids being relax'd, the Concoctions are proportionably weaker, the Force of the Circulation more impair'd, and the Perspirations less, and consequently strong Food of hard Digestion, or a greater Quantity of any fort of Food, than the Stomach can concoct, the Lacteals receive, or the Expences of Living require, must lie crude, and corrupted in the Alimentary Passages, and beget gross Chyle, and sluggish Fibres, which will be disobedient to the Command of the Will, improper for the Functions of Life, and will necessarily run into Disorders, and Convulsions. I have seen some of those suffer even unto the last Extremity, and to mortal Agonies, from a large Meal, and Food of hard Digestion, or the least excess

cess in strong Liquors. And I never saw a perfect Cure attain'd in fuch, where a spare thin Diet, of but little Flesh Meat, and that of the youngest, and whitish Kind, (as least abounding with urinous Salts) less Fish, and least strong Liquors, were not join'd to proper Remedies. And this Diet alone (with gentle Vomits, some few Stomach-Purges, light Bitters, Mineral Waters, and riding on Horseback) has been more effectual in such Cases, than all the rest of the Apothecary's Shop put together. The Case of an eminent Physician in Croyden, dead not long ago, is very particular. He had long labour'd under the Morbus Caducus, or Falling Evil: And in the Infancy of his Practice, had often dropt off his Horse, going to his Patients, and had been carried home by the next Waggon. He had try'd all that Physic could do, or Physicians advise; as he himself inform'd me, to no manner of Purpose. But by slow Observation, he had found, the lighter his Meals, the lighter his Fits: At last, he cast off all Liquids but Water, and found his Fits weaker, and their Intervals longer, and by Degrees finding his Disease mend, as its Fuel was withdrawn, he took to Vegetable Food, and Water only. This he found too windy for his Stomach, tho' it put an intire Period to his Fits, without any Relapse. But after several Trials, he fix'd on two Quarts of Cows-Milk every Day: A Pint for Break-fast, and another for Supper,

Supper, and a Quart at Noon: Without Fish, Flesh, Bread, or any spirituous Liquors, or any Thing else whatsoever, except Spring-water. And this he seldom wanted, but as ter great Exercise, and hot Weather. In the sourceen Years he lived afterwards, he never had the least Interruption in his Health, Strength, or Vigour: Except once by catching an Ague, as he rode thro' the Hundreds of Essex, which chewing a little Bark quick-ly remov'd; till by lying in a damp Bed in a frosty Season, he caught a violent Cold, which ended in a Pleurisie: And neglecting to bleed himself, thro' an Opinion of the Sufficiency of his Diet to cure all Distempers whatsoever, it cut him off in a few Days: Else in all probability he might have liv'd healthy, and in the intire Use of his Senses, and Faculties, as long as Cornaro: Now all Nervous, and Cephalic Distempers being Branches from the same Root, and Cadets of the same Family; this short History shows what Wonders a Regimen, and Diet, if duly instituted, and religiously pursued, will work in them. I have met with like Success from a Diet less rigorous, and more various, the spare and uniform.

LXV. There is a Diforder belonging to the Sex, commonly ascrib'd to relax'd Fibres: The most dangerous, obstinate, and hardest to be cur'd, of any they are subject to; which, in

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in my Opinion, is neither fully understood in common Practice, either as to its Cause, or its Cure. For besides, a State of weak Nerves, and relax'd Fibres, there is also an ill Condition of the Juices, which constantly attends this Disorder, as is evident from the Circumstances of its Discharge, its Colour, Consistency, and the Pain it gives: besides the unhealthy Complexion, the imperfect Concoction, and the Siziness of the Blood accompanying it; there is one remarkable Difference between it, and the first Stage of the immodest Infection, viz. That while the Lunar Disorders happen, the first never appears; but in this last, they are ever Companions, as I constantly, and without once mistaking, have observ'd. And this single Observation, is sufficient to determine the true Nature of the Weakness we are now speaking of, viz. That it arises from the Siziness of the Juices; which continue to flow from the same Organs and Vessels the Lunar Disorders come from: which Organs and Vessels, through the Weakness of the Nerves, and the Laxity of their Fibres, not being able to shut themselves altogether, and with a sufficient Spring, so as to hinder every Fluid from pasfing: But after having contracted so far, as to shut up the larger Clusters of the Red Globules, they are too weak intirely to close: but continue to let the serous Part, and the lesser Clusters pass. And it is evident from Sir Isaac Newton's Discovery about Colours, that they inintirely depend on the Magnitude of the Parts. And that this is the true Cause, and genuine Nature of this Distemper, when it is habitual, and not owing to Accidents, is evident from many Circumstances attending it. One I shall mention, which I think will be sufficient to ascertain this Account, viz. That this Disorder, if not curable, generally ends in a Confumption or Dropfy; and these are the very Distempers, which a constant Drain and Expence of the Arterial Juices produce. As also, if this Disorder be preposterously stopt, it gives immediate Pains, Swellings, and Inflammations in the Breafts, which every one knows a stoppage of the Monthly Periods do in the same manner produce. From this Doctrine, thus explain'd, it is evident that all Aftringents, properly so called, viz. (such as thicken the Blood, constringe the Vessels, and dry up the Humidity only, as drying Earths, Shell-Powders, Vitriolic, and Styptic Medicines) and all Balfamicks, and Terebinthinate Medicines (which spoil the Stomach, weaken the Digestions, and relax the Fibres more) are either useless, or hurtful in the first Instance; and that the true Method of Cure, is to treat it at first as a Cacheny, or ill Habit of Body. Wherefore gentle Vomits succeed wonderfully here, as they mend the Digestions, open Ob-Aructions: But principally as they are the best Revulsions from the Part affected. Next a Regimen or Diet, fuch as fits a broken Constitution;

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stitution; and then the Gure may be finish'd by German Spaw, Tunbridge, and other Acidulated, and Chalybeat Waters, washing down a strengthning Medicine of the Bark, toasted Rhubarb, Orange Peel, Astringent Bitters, and astringent Saffron of Steel. Sometimes this Disorder comes from a Cancerous and Scrophulous Taint; in which Cases nothing is to be done, but to palliate, or relieve, except by a total Milk Diet.

LXVI. There is one Calumny, amongst many others, Ignorance and Partiality have very unjustly thrown on the weaker, tho' certainly the least corrupted part of this our Race: (Weaker, I mean, as to the fleshy Fibres, for Souls, and Spirits, as well as the World of Spirits, admit of no Sexes) viz. That the Barrennels, Unfruitfulnels, and want of Posterity, fo frequent in England (especially among the better Sort) is commonly cast on them; whereas it is very great odds, if the fault lies not on the other side. If the Account of Generation, commonly admitted now, establish'd and confirm'd by undeniable Experiments, and Obfervations, both in the Vegetable and Animal Kingdoms, be true and just, as I really think it must be in the main, which is sufficient for my purpose, viz. That the Female furnishes out only a proper Habitation, fit Nourishment, due Warmth, and such like outward Conveniences for the little Beings; but that the vital PrinT 108 ]

Principles, the living Particles, proceed altogether from the Male; then it will follow, that the Concurrence of a great many more Circumstances, and their precise Degrees (such as Temperance, Coolness, a just Mixture, due Confistence, and exact Proportion of the Parts of the Blood, Spirits, and other Secretions; In a Word, a more nice, precise, and critical State of Health) is necessary for Fecundity in the Male, than in the Female, and that in as high a Degree, as Life is exalted above Animal Nutrition, or Increase. The Liberties Men take beyond Women, the Riot they run into, their continu'd Debauches, the Vicifitude of Heaters and Coolers, the high feafon'd and inflaming Diet, the better fort of young Persons of our Sex accustom themselves to will more than sufficiently justify this my Obfervation. How can Fruit be expected from a Tree, whose Root is roasted, spiced, or salted to a Mineral? Life is likely to hold long, or be very healthy, that comes feafon'd, and fows'd in Hermitage, Tokay, or Citron Water. The Observation is so true, that here at Bath, where generally, and very justly, such Cases come, as to their last Resource; I have often succeeded by making proper Application to the least suspected Party, by bringing them to a due State of Sobriety, Coolness, and Health, the only just Foundation of Fruitfulness in either Sex. How fertile are the Scotch Highlanders on their Milk and Oatmeal?



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the Stomach, is there reduced to a Milky Substance: The finer Part of which being separated by the Lacteals, and sent by a large Duct into the Axilliary Vein, returning into the left Ventricle of the Heart, is thence derived into the Lungs: They fend it into the right Ventricle, and from thence it is squeez'd thro' the Arteries over the whole System of the Solids. The shorter and smaller Branches thereof ferving to recruit, and repair the Coats of the Vessels, and Organs nearer the Heart. while the longer terminate in Glands: Some of which emit a shorter Duct, either for the Nutrition of the Parts, or for feparating the Recrements that are to be thrown out of the Habit, while others terminate in yet much longer, and smaller Ducts, and run along with the Fibres (Fleshy, Nervous, Membranous, or Bony) that make up the Solids of the Body; and there leave proper Nourishment to recruit the Expences, or Decays of Life; and to repair the natural, or accidental Injuries they may fuffer. Hence it is easy to observe, how many Alterations Food, and Medicines must undergo, and what a length of Way they have to pass over before they can reach the Fibres, which are the constituent Parts of all the Solids. As also how difficult it is, and what a tedious Time it must require to perform any great, or notable Alteration, or Effect on the Nerves. Now in a relaxed State of the Nervous System (the Origin of all

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Nervous, and Cephalic Distempers) I can conceive but three possible Ways of contracting or winding them up, i. e. of curing them. The first is, by sending Nourishment duly concocted, and sufficiently subtilized (so as it may readily quite pass thro' all those small winding Channels to the last solid Fibres) to fill their empty Pores, to fwell their Bulks, and thereby to lessen their Lengths, i. e. to stretch, or wind them up: Hence the necessity of a low, cooling, uniform Diet: Hence the Use of gentle Vomits, which cleanse the Alimentary Passages, and hinder their Impurities from mixing with the Blood, which by their Internal Concussions shake off all Extraneous Bodies from the Fibres, and by the strong Convulsions of the Muscles, open the Obstructions of the Vessels, and promote the Circulation. Hence the necessity of Bitters, Aromaticks, Chalybeats, Mineral Waters, Exercise, and whatever else can promote, or mend the Digestions, are indicated. (2.) By attenuating the fizy Blood, and Juices, whereby they may be fufficiently fubtilized, so as to reach the Fibres, and carry into them proper Nourishment for winding them up, as was now shewn. Hence the necessity of Volatiles, Attenuants, and Nervous, or Antibysterick Medicines, properly so called, is indicated. Tho? I have observed but little done by these last, except in Fits, and for a present Relief. (3.) By sending thither (as far as eArt can do

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it) Medicines, which when arriv'd there, may straiten, stiffen, or wind up these Relax'd Nerves, which indicates the Bark, Orange-Peel, toasted Rhubarb, Acorns, the Vitriolum, and the Crocus Martis, and whatever else is endow'd with a cool bitter Aftringency, with the least Acidity. From this Account we may observe, why Purging succeeds so ill in Nervous Cases. For besides, that it carries off the Nourishment (the slow Digestion in these Cases makes it, that greater crude Quantities are carried off by a Purge in them, than in others) it counter-acts the very Intention in the Cure, viz. the contracting or winding up the relax'd Fibres of the Solids, which it is impossible ever to execute, but by beginning at the Fibres of the Stomach, and Guts, as we observe in the Bark, which never succeeds when it purges: At least neither so soon, nor fo certainly; (and therefore I always add a few Drops of Laudanum to it in weak Nerves) which from this beginning, by continuance, propagates it self to the last Extremities, like the Twisting of a Rope, where a Twine at the moveable Extremity propagates it felf by Degrees, to the fix'd end, be their Distance ever so great. So that there is no succeeding in nervous Cases, without first rendring the Fibres of the Stomach and Guts tight, i. e. the Body firm, if not costive.

And possibly, it may be from this Quality (Astringency without Acidity) with its being more

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more easily digested, than Roots, and Barks are, that Misletoe of the Oak (or of any other Tree) so justly celebrated by Sir John Colebach, is so successful in the Fits of younger Persons, even the Epileptic Ones, as I have partly experienc'd my self.

LXVIII. Corol It may not perhaps be amis to illustrate this Method of Cure in a particular Case of Relax'd Nerves: A Case, I say, which happening, tho' but feldom, yet has the most melancholy Appearances: And is not as yet, for ought I know, brought to fo eafy, and so certain a Method of Cure, as is here laid down, which is plainly deducible from the general Method describ'd in the preceding Scholium: and that is the Chorea Sancti Viti, or St. Vitus's Dance. Which treating after the following Method, I never fail'd of a standing Cure, in all those that came under my Care, as some now living can witness. The Party being Young, and otherwise Healthy, (else a proper Method for a Cure of a Cachexy already describ'd, was premised.) To answer the first Intention of the general Cure, I order'd a Vomit (generally I combin'd either the Emetic Wine, with an Infusion of the Ipecacohana, or the Tartar Emetic, with the Powder of the Root, wherein the latter adds Certainty, and Expedition; the former Force, and Strength, to the Operation) to be repeated regularly on the same Day of the Week, for a confi-

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considerable Time, till the Distemper began to decline (and then I lengthned its Intervals,) together with an Anticachectic Diet, already explain'd. To answer the second Intention, I prescrib'd for a Month, or six Weeks, on all the intermediate Days, a large Dose of Athiops Mineral, with Bath Waters to wash it down. And Lastly, After this Course sinished, to answer the third Intention, I gave an Electuary of the Bark, Orange Peel, Powder of Acorns, and Crocus Martis Astringens, to brace the Nerves inwardly: and order'd cold Bathing every other Day, for producing the same Effect outwardly; and the Cure seldom exceeded three Months.

LXVIII. The Distinction of an Humorous, and a Nervous Afthma, Cholick, Cough, and Gout, &c. ought all, to be founded (in true Philo-(ophy) on the Difference between a firm, stiff, and Aretch'd State, and a loofe, flabby, relax'd State of Nerves: And the different Method of treating them, ought chiefly to confift, in the different Degrees of Evacuations they require. Those of the humorous Kind abounding in more gross, heavy, and sizy Humours, and a greater Plenty of them: require more plentiful and more powerful Evacuations: But then those of the nervous Kind, require always fome previous Evacuation, in Proportion to weaker Animal Functions. As for Example, in the Nervous, or Hysteric Cho-· lic.

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lic, when it is come to perpetual Reachings, inward Throws, and Convulsions, tho' the Patient vomits not groß Choler, or great Quantities of Phlegm (tho' this last is seldom altogether wanting) yet there is still lodg'd in the Glands of the Stomach and Guts, a more fubtile, and irritating Matter, which twitches, and fets the Muscular Fibres into those Convulsions. And the formal Difference between a Bilious, and an Hysteric Cholick, consists in this: That scarce any Thing but the Sharpness, and abundance of these Humours, could possibly provoke these stiffer, and more firm Fibres unto such violent Contractions. Whereas the flightest, and most subtile sharp Steam, is sufficient to convulse these weaker, and more relax'd Nerves: Which when once fet a going (the chief Thing to be observ'd) will, like a Pendulum, continue their Vibrations for a considerable Time from the first impressed Force. And therefore let their Reachings, and Pukings be ever fo violent, and frequent, a Nervous, or Hysteric Cholick, will not so readily, or so certainly terminate, as by first premising an Artificial Vomit (contrary to Sydenham's Opinion) to cleanse the Alimentary Passages from the irritating Cause: and then endeavouring by warm Cordials, proper Antibystericks, and Carminatives combin'd with Opiates (in the least Volum) to settle and compose the undulating Vibrations. And both Cholicks are best prevented

ed by frequent, warm, gentle Purgers. It is for the same Reason, that gentle Vomits of the Indian Root: the Jesuits Bark: and a low Diet, that gives the best Perspiration, and begets the least of that acid Flatulency, which ferments into those Pulmonick Convulsions: succeed best in the Nervous Asthma: as the Syrup made of the express'd Juice of Millepeda, or Hoglice drown'd in White-wine, and giv'n by Spoonfuls, will infallibly cure Children's Convulsive or Chin-coughs; and as the Squill Vomits, Oils, and attenuating Medicines, such as the volatile Salts, and Plants (Garlic especially) do in the Humorous.

LXIX. Having had frequent occasion to mention the Bark, as being absolutely necesfary to the Subject I treat; it may not be amiss to remove one Objection against it; and the only one I have ever heard or read made with any Shew of Reason. I have taken as much of it my felf, and as often, and have prescrib'd it as freely as any of my Age, I believe; and never observ'd it, either in my self or others, do any Hurt, except when it has been injudiciously and improperly prefcrib'd, and that in continu'd acute Cases only. The Objection is, that it often leaves behind it a bad Habit, a Scorbutic, Cachectic, or Hectic Constitution; bad Lungs, Liver, or Stomach; or some of the great Viscera spoil'd or corrupted. But the Mistake in this Objection lies here, here, to wit, that few Constitutions break, and feldom any of these great Organs become vitiated; but they begin with an intermittent or periodical Fever. And thefe I have constantly observ'd to be of that kind, and approaching that Season, which Sydenham most judiciously distinguishes from Vernal ones, and calls Autumnal Agues; and are indeed fymptomatical only, arifing from beginning Obstructions in the whole Habit, or in these greater Viscera: Where all Nature is at work, and the whole Organs labour and ftruggle to thin the fizy Fluids, and to open the obstructed Bowels; but not being able to bring about this End, Nature succumbs after every Feverish Fit, thus excited, into a worse State. And even here too, the Bark does all its proper Office, in quenching, to wit, the violent Paroxysms of the Fever, which only can endanger the Life of the Patient; and allows Time for other Medicines to act. But when the Habit is already broken, and the great Viscera already unfound; it cannot be blamed that it do's not restore these; nothing like that being expected from it, or ascribed to it. When the Bark has extinguish'd the Feverish Fits, which threaten Death to the Patient, a Reprieve is obtain'd: In which, by deobstruent and attenuating Medicines, Health and Life may be fecur'd. In relax'd Nerves of the Prima Via; in almost all forts of Nervous and Cephalic Diseases depending on thefe .

these; in all Gouty Disorders in the Alimentary Passages; in all Nervous Gouts; in all Intermittent and Periodical Distempers, or Pains whatfoever; 'tis preferable to any thing hitherto us'd; only in very cold Stomachs and Constitutions, I have found a Decoction of the Indian Bark, by some call'd Elatherium, to be yet more effectual and strengthning; as it will also more readily remove the Periodical Diforders of fuch. But the Peruvian Bark I never found did any Hurt, but in acute continu'd Cases; where it runs into violent Purgings: And in the Monthly Purgations of the Sex, which sometimes it will obstruct; and therefore it ought not to be given without Steel; which ought also to be added, when it is given in Chronical Cafes. It were to be wish'd only, in these Cases, it gave the same Relief the second and succeeding Times it does the first.

LXX. I have formerly observed, that when the Gout becomes dispersed over the whole Habit, or fixed and settled on a particular Joint, Mercurial Vomits and Purges were absolutely necessary to dislodge it. But there is one Species of the Gout which miserably torments its Subjects, and yet yields not to that, or very rarely to any of the Methods in use; I mean the Gout on the Hip-Joint, when fixed and constant, commonly called the Sciatica; and yet treated after the manner I'm to explain, never

never fails of a perfect Cure. The Foundation of the Method I had from the late most Learn'd and Eminent Physician Doctor Archibald Pitcairn; he having communicated it to me under no Restriction of Secrecy, I think my felf oblig'd to publish it to the World, for the Benefit of the Afflicted. I have us'd it with great Success these several Years, and I think have improv'd it in feveral Particulars of the Management; and so never fail of a perfect Cure, if the Distemper is a genuine Sciatica, tho' of many Years standing; and after having baffled all other Attempts. It confists in taking from one, two, three Drams. to half an Ounce (according to the Strength of the Patient's Stomach) of the Ætherial Oyl of Turpentine (that which comes off between the Spirit and Oyl, in drawing off the common Oyl of Turpentine) in triple the Quantity of Virgin Honey, in a Morning fasting, for four, five, fix, or eight Days at farthest, intermitting a Day now and then, as the Patient's Occasions require, or his Stomach suffers by it: In drinking, after it is down, large Draughts of Sack-Whey, to fettle it on the Stomach, and carry it into the Blood: And lastly, in taking a proper Dose of Matthew's Pills every Night, that Day the Medicine is fwallow'd. This Courfe never fails to remove the Violence of the Pain, and to leave only a Weakness on the Part. To remove the grosfer Remains, and strengthen the weaken'd WIELD Part,

Part, I order a Dram to two Drams of Flower of Brimstone, for some time, twice a Day, in a Tea Cup full of Milk. If through great Intemperance, or a violent Cold, the Patient relapses, I order the Repetition of the former Medicines for a Day or two, which commonly fets it a packing. And lastly, to strengthen the Prima Via, and enliven the Spirits, I advise Bath or Spaw Waters with Steel, and Bitters with Volatiles; and perhaps pumping on the Part affected, which never fails to perfect the Cure in a genuine Sciatic. And I hope it may be of some use, to have a Method of Cure for this Distemper, so plainly laid down, so effectual in it self, so easy to the Patient, and so restorative of his Constitution in general, in respect of those Tortures, and the nauseous Load of Medicines the Afflicted are forced to go through in common Practice. The great Efficacy of this Course consists in the Ætherial Oyl: It has been common to prescribe a few Drops of the Oyl of Turpentine in cold Rheumatisms and fix'd Pains on the Joints: But this feldom proves effectual in the Sciatica: Whereas this Ætherial Oyl, having all the Penetration of the Spirit, together with the Softness and Detergency of the finest Balsam, but chiefly being of such Lightness, that any Quantity of it may be given, that can stay on the Stomach, or be kept down by frequent Draughts of any fost Liquor, especially Sack-Whey: which by its Milkiness uniting readily with with the Ætherial Oyl; penetrates into the least and finest Vessels, and the most secret Recesses of the Animal Oeconomy; opens their Obstructions; dissolves the glutinous Gellies in the Joints; cleanses the insides of the Tubes, and makes all pass by Perspiration. The Rule whereby to accommodate the Dose to the Patient, is to order it so, that it mayn't be so much as to recoil upwards; to prevent which, a large Quantity of Sack-Whey is order'd: And it seldom moves above once downwards; but lest it shou'd go farther, in the subsequent Doses, the Pills take place.

LXXI. As to Topicks or outward Applications, to ease or relieve the Part affected in a Fit of the Gout, they are dangerous, unless discreetly manag'd. In the frequently mention'd Cardinal Fits of Spring and Autumn, when through Ignorance or Neglect of the Methods hitherto laid down, they shall happen Regular; I would by no means encourage any fuch outward Application of what kind foever hitherto discover'd, except in the very last Extremities of Pain. In the Regular Gouts, at those Seasons, these Fits are not to be tamper'd with in any manner, but in the way formerly directed. For the Habit being loaded with the Gouty Humour and Saits, must be allow'd a time to discharge it felf, and drive them out of the Body; otherwise Life must be endanger'd by a putrid or malignant Fever: And

And these being the Seasons when the Humours naturally undergo fome Alterations; if the Gout be thrown upon the extreme Parts, Nature must not be disturb'd in her Operations: But whatever is to be done, is to be directed to encourage and fortify her in her own way; and to affist her to expel the last Breathings of this Humour upon the Parts most remote from the Head and Heart, the two Sources of the Motion of all the Fluids: (which has been the Intention of all the Methods and Medicines prefcrib'd in this Treatife:) For thus the Blood will be purify'd; the Spirits reliev'd from their Oppression; the Joints render'd pliable, and all the natural Functions set at Liberty. When these Fits are over, any thing that is just and probable, and attended with no Danger, for lessening the future Fits, and lengthening their Intervals, may be try'd. But in the Fits falling out of these Seasons; in the tedious and lingering Fits of those broken with Age, and habitual Gouts; a well chosen outward Application may be fafely and fuccessfully us'd; especially, if at the same time gentle Stomachic Purges be administred; or a Blister on the Ancles or Wrists be open'd, to let out what may be repell'd by the Topick; and thereby to secure the noble Organs. For let Pretenders brag what they will, I know of no outward Application, hitherto discover'd, but what by its Sluggishness stops the natural Perspiration: Or

Or by its Activity counter-acts the Direction of the Circulation; and confequently repels the Humour in some degree or other. But by thus opening a Way for the Humours to pass elsewhere, the Part affected may be much reliev'd by proper Applications. Fuller and Bates give the Forms of some; and Doctor Pitcairn was exceeding fond of, and held as a great Secret, that which himself has publish'd in the last Edition of his Treatises, which is made of two Ounces of white Arsenick, and fix Ounces of Live-Lime Stone, put into four Quarts of boiling Water, set in a warm place twenty four Hours: Stoups of this apply'd warm to the Part, he had found effectual and fafe. That which I wou'd rather recommend, is Stoups of a Decoction of Butterburr, Ground-Pine or Camomel Flowers, or any Aromatic bitter Plant in Milk; or a Pultis of the Head of a Sack-Whey Posset, or any such soft and active Application, to moisten, soften, relax and open at first; and towards the Decline of the Fit a Mithridate or Venice Treacle Plaister; the Emplastrum Stomachicum Magistrale, or the like, to strengthen, warm and comfort; especially if with these last a stomachic warm Purge be join'd. As to Symptomatic Gouts, there can be no place for them, in the Doctrine hitherto laid down. For on the Supposition, that the Gout is owing to a particular Texture and Conformation of Parts; where that Texture and Conformation of Parts is, and the R 2

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Materials for forming the Gouty Humour is supply'd, there the Gout must necessarily be, without the Concurrence of any other Distemper: And where these are not, there it cannot be, let the Person be subjected to what other Distemper soever. And if a Person be subjected to two Distempers, in the Cure of the one, due regard is to be had to the Cure of the other. What has been said is all I intend at present on this Subject.

LXXII. The Scurvy is become fo universal a Distemper, of late, in these our Northern Climates, amongst the better, as well as the meaner Sort (with this Difference tho', that it is much more Fatal and Obstinate in the Former, than in the Latter, from their more complicated Luxury, and their habitual Laziness) that in one shape or other, it makes, originally, three Fourths of all the Chronical Distempers in England: and is connected with, and accompanies all the rest. Yet in all my Obfervation, or Reading, I never knew one Perfon so perfectly cur'd that he did not relapse, by returning to the same method of Living, which first brought on the Distemper; and I think it may even more justly be reckon'd the Reproach of Phisic, than the Gout it felf; for tho' it does not torment its Subjects for cruelly as the Gout, yet the Injuries it does the Head, and the Nervous System, the Hypochondriacal, Asthmatical, and Hydropic Dif[ 125 ]

Diseases it brings on, damp the Enjoyments of Life more, and hasten its Period sooner than the Gout possibly can: Hence most of the Hysteric and Hypochondriac Distempers: Hence the Melancholy, Madness, Self-Murthers, and even the Barrennels amongst the better Sort, that abound here in England, more than in most other Parts of the World, proceed. I have only touch'd on this Distemper by the By; from having had so much Occasion to speak of the Advantages of a Regimen, or Diet, the only certain Cure of this obstinate Malady: and therefore I shall omit all Enquiries into the Nature, and Cause of this Distemper, and of the Method of Cure advis'd by others; being of the Opinion that tho' Medicines may palliate and relieve the Symptoms, yet nothing but a Course of Living, quite contrary to that which produced it; or stepping the same Paces backwards, as were made forwards, can perfectly root it out, or effectually relieve it for any Time: That is, by abstain-ing from Flesh, Fish, and strong Liquors, in proportion to the former Excesses in Living, committed: and joyning to this, Exercise, Vomits, Bitters, Specific, Antiscorbuticks, gentle Stomach Purges, Chalybeats, and Mineral Waters, to quicken the Relief; but in a general Cacheny, and broken Constitution. arising from a Scorbutic Habit, nothing can cure, or effectually relieve, like a Total Milk Diet; which long continu'd in, will by far more

more fafely and certainly cure this Distemper, than it will the Gout it self, provided always, the Party be not far past the Meridian of Lise: For then the Natural Heat is too far spent, for so cooling a Diet. And that he begin, and leave it by very slow Degrees. This may be done in Part, with great Benefit and Sasety, for six Weeks every Spring, by those who labour under a deep Scurvy. Living a Month upon Bread, and Small Beer only, will fasten the Teeth, when they are droping out, throsthe Sharpness of the Scorbutic Salts, when nothing else on the Earth can do it. Any vegetable Diet will dothe like, tho not so quickly, and so easily.

LXXIII. I have been long of the Opinion, that all Chronical Cutaneous Eruptions, Scabs, Foulnesses, and Sores, for the most part, sprung from two Sources only, viz. The Scuryy and the Pox; and that the First was of a Northern Extraction, owing its Origin to the Gluttony and Intemperance of the colder Climes: as the Latter was of a Southern Extraction, arising from the Lasciviousness, and Uncleanness of the warmer Countries; and that it is this Difference of their Origins, that makes them so different in their Stubbornness, or Facility, in admitting a Cure. The Scurvy arising from a Malignity convey'd by slow Degrees into the Blood, and from it into the most distant Fibre and Solid, is so difficult in its Cure, that as I have

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have observed before, no Methods, except a total Abstinence from Fish, Flesh, and strong Liquors, is sufficient so to extirpate it, but that it will return with all its wonted Fury; if fewelled by an Animal Diet, and generous Liquors. Whereas the Pox manifesting it felf fooner, with more painful and frightful Symptoms, and deriving its Infection from more Superficial Causes, never sails of a Cure, till it has arriv'd at its last Stages, or Nature is too weak to undergo it; and as in the Southern Countries, the Scurvy, by reason of the constant free Perspiration of the People, and their living mostly on Vegetable Food, is not known; and the Pox is carry'd off by the flightest Remedies: So in the Northern Countries, from contrary Causes, the Scurvy is incurable, and the Pox is only cur'd with much Pain, and by the most violent and active Remedies. And as by the History of Diseases, we are inform'd, there have been Symptoms of these two Distempers in all Ages, so we are certain, that they both were as different in former Ages, from what they are now, as was the Natural Simplicity and Plainness of Living of these early Times; from the various, and complicated Luxary of our Days: Or as was the Pen-gun Artillery, which was sufficient, and effectual in vanishing these Distempers among them, to the Bombs, and Stink Pots necessary among us. To these two Original Distempers, all the Scorbutic Eruptions, and Pocky

Pocky Foulnesses; all the Ringworms, Itches, Scrubado's, Leprofies, Elephantiases, and even the Kings Evil, or Scropbula it felf, in these our Northern Climates, owe their Being. And to which of these two in particular, each fingle Case owes its Origin, may be always determin'd by its Facility, or Stubbornness of admitting a Cure: For if any of them recurs, after all possible Methods of Cure, even a Salivation it felf, we may readily conclude it of the Scorbutic kind, and that therefore nothing will keep it within Bounds, but a low Diet, and cool Applications. If it yields, and is perfectly cur'd, then must it have been of the Pocky kind in its first Principle, tho' the malignant Taint may have been contracted fo many Generations before, that there is no gueffing whose the Original Sin was. Besides, that there are more ways than one of receiving this Infection. To conclude, I have always observed, that as the Active, mercurial Medicines, reliev'd, and at last perfectly cur'd the latter: so they no less certainly enraged, and exasperated the former kind of Evil, as they do in the Original Distempers, from which they respectively spring; and that nothing succeeded so well in the Scorbutic kind, as Asses Milk, sweetning Powders (Cinnabar, Native, or of Antimony, Crude Antimony in Powder, Æthiops Mineral, &c.) gentle Vomits, a cool Diet, Mineral Waters (Bath, Holt, and Briftol) and such other easy Methods, as preserv'd the [ 129 ]

the Individual till the Age of Puberty, when a stronger Perspiration, a more active, and stirring manner of Life, and other Drains common to that Age, draw off he Malignity, which then, if at all, happens.

LXXIII. There is a Difference, if not a Distinction, between the Gout, and Goutish Disorders: These last having a great many Symptoms of the Gout, tho' they have neither the violence of its Pain, nor the regularity of its Periods. Thus for Instance, White Swellings upon the Ancles, Knees, and other Joynts, which when fixed there, beget only a Stiffness, or Weakness, and but little Pain, yet like the Gout when translated upon the Guts, it produces a Diarrhaa; when upon the Stomach, Vomiting, Nauseating, and Sicknesses; in the Head, Heaviness, Confusion, Giddiness, and Pain; and like the Gout, also requires generous Cordials, and active Medicines, to banish it to its proper Seat, and imprison it there, which nothing but what enriches, and exalts the Blood, together with what can contract the Nervous Fribres, can do: These White Swellings being a Spice, or weaker Degree of the Struma, or Kings-Evil. Hot and inflammatory Rheumatisms, have all the Symptoms of the Gout, and like it, change from Place to Place, and by over violent Evacuations may be translated upon the Noble Organs; and by the Way, it may not be amifs to

to observe, that excessive Bleedings, and other violent Evacuations, constantly bring a Hectic, or a Dropsy on the Patient in this Case, Difeases of a much more dangerous Nature in themselves, and far more difficult to be cur'd, than the Original one. Therefore in this Distemper, after premising only so much Bleeding as will prevent a Fever, and Mortification, and somewhat abate the Pain (which gentle Doses of Calomel, and Gum Guaicum, will do more effectually, tho' not more speedily, than Bleeding it seli) the rest is to be done by large Doses of the Bark and Æthiops Mineral, mixt; and a Relapse prevented by gentle Doses of Gum Guaicum, with Antimony Diaphoretick, and Cinabar of Antimony. But of this enough. Of this Gouty kind also, is the Nervous Sharpnesses of Hysterick Women, which sometimes, is a Pain in the Forehead; a violent Stitch and Pulsation, fix'd over one of the Eyes; a Coldness in the Top of the Head, on the Temples, and almost all other Parts of the Body by turns, a Pain in the Teeth, the Jaws, the Stomach, the Sternum and the Guts, is a Strangury, Tenesmus, a Cholic, the Gout, and the Gravel: In short, every Thing, and perhaps nothing but a Flatus or Wind twitching some Branches of the Nerves, which makes others fuffer with them by Confent. And this requires that with the Cordial Strengthners, Nervous, and Antibysteric Medicines, Opiats should always be join'd, and then only. LXXIV.

LXXIV. I have been inform'd, with great Concern, of fome fmall Inconveniences that have happen'd in the Usage and Application of some of the Rules, and Remedies advis'd for the Gout, in the first Edition of this Treatife. I did endeavour to lay down the Advices there given, with all the Plainness and Precision I could: But I begin now to be sensible, there is some Danger in the Application of the most innocent Remedies, without the Direction of a proper Person, experienc'd in the Nature of Medicines, acquainted with the Difference of Constitutions, and skill'd in the History of Diseases. If one afflicted with a Nervous Gout, should use Sulphur for a Remedy, unless it be in a very small Dose, or taken very seldom, he can never fucceed, because Sulphur purges, and relaxes the Fibres of the alimentary Passages, which will bring on a Disease, far more deplorable than the Gout, and to which the Gout it felf brings its Subjects on its last and fatal Stages only: Whereas to cure a Nervous Gout, Medicines are indicated, which gently evacuate, and restringe at the same time, such as Rhubarb, Aloes, and the like, or neglecting the Gout, the Nervous System is to be strengthned and wound up first by Crocus Martis Aftringens, the Bark, Orange Peel, and fuch other Remedies, as are directed above, in Nervous Cases, whereby the Strength being recover'd, S 2

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and the Spirits enliven'd, most of the Gouty Symptoms will fly of themselves. On the other Hand, should a Person, suffering under an Humorous Gout, where the System of the Nerves are stiff, and stretch'd, use the Bark, and such other Remedies, as are recommended in a relax'd State of the Nerves, he must enrage his Gout, feeing gentle Evacuations, and fost Emollients are there indicated. Lastly, in the Use of Sulphur, should the Body be render'd too glib and slippery, it ought to be disus'd for some time: and light Bitters, or Rhubarb taken in its stead. Add to these, that the Doses of all such Remedies ought so to be accommodated to the Constitution, as never to fink the Spirits, or weaken the Strength, but rather to increase both, which they will always do, in a proper Dose. out such Cautions duly weigh'd, and accurately apply'd, no general Directions will univerfally succeed in the Gout, or any other Chronical Distemper.

LXXV. For a concluding Observation, we shall take notice, as it is only the Rich, the Lazy, the Voluptuous, who suffer most by the Gout: (I mean acquir'd Gouts, and those hereditary ones enrag'd by Luxury) so those only, who have spent their Life-time under its Tortures best can tell, what astonishing Miseries Wealth and Vice bring upon Human Kind! When the Gouty Humour has seiz'd upon

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upon all the Noble Principles of Life, when it has broken, subdu'd and obstructed all the fine Pipes, and slender Passages, in whose Openness and Soundness all the Exquisite Sensations, all the Delicate Usages of the Animal Faculties consist. When nothing but Pain, and melan-choly, frightful Ideas, horrible Dreams and black Despair remain; who wou'd not have parted with the Richest Delicacies, the most Delicious Wines, and the most Enticing Vices, for a plain, simple Diet, an useful laborious Life, Freedom from Pain, and a good Con-Science? TEMPERANCE only, Divine, Innocent, Indolent and Joyous Temperance, can cure or effectually relieve the Gout. For let Us, or our Brethren the Quacks, brag what we will,

Tollere Nodosam nescit Medicina Podagram.

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