

**A discourse concerning fevers. : In two letters to a young physician. The first, dissuading from all hypotheses and theories, whether physical or mechanical, as vain and delusive. The second, directing his regimen for the cure, and his conduct to the sick person; With some short, but general remarks upon the pulse and urine, in the way of postscript. As also upon the crises, and critical days in fevers. / By Daniel Turner, M.D. of the College of Physicians in London.**

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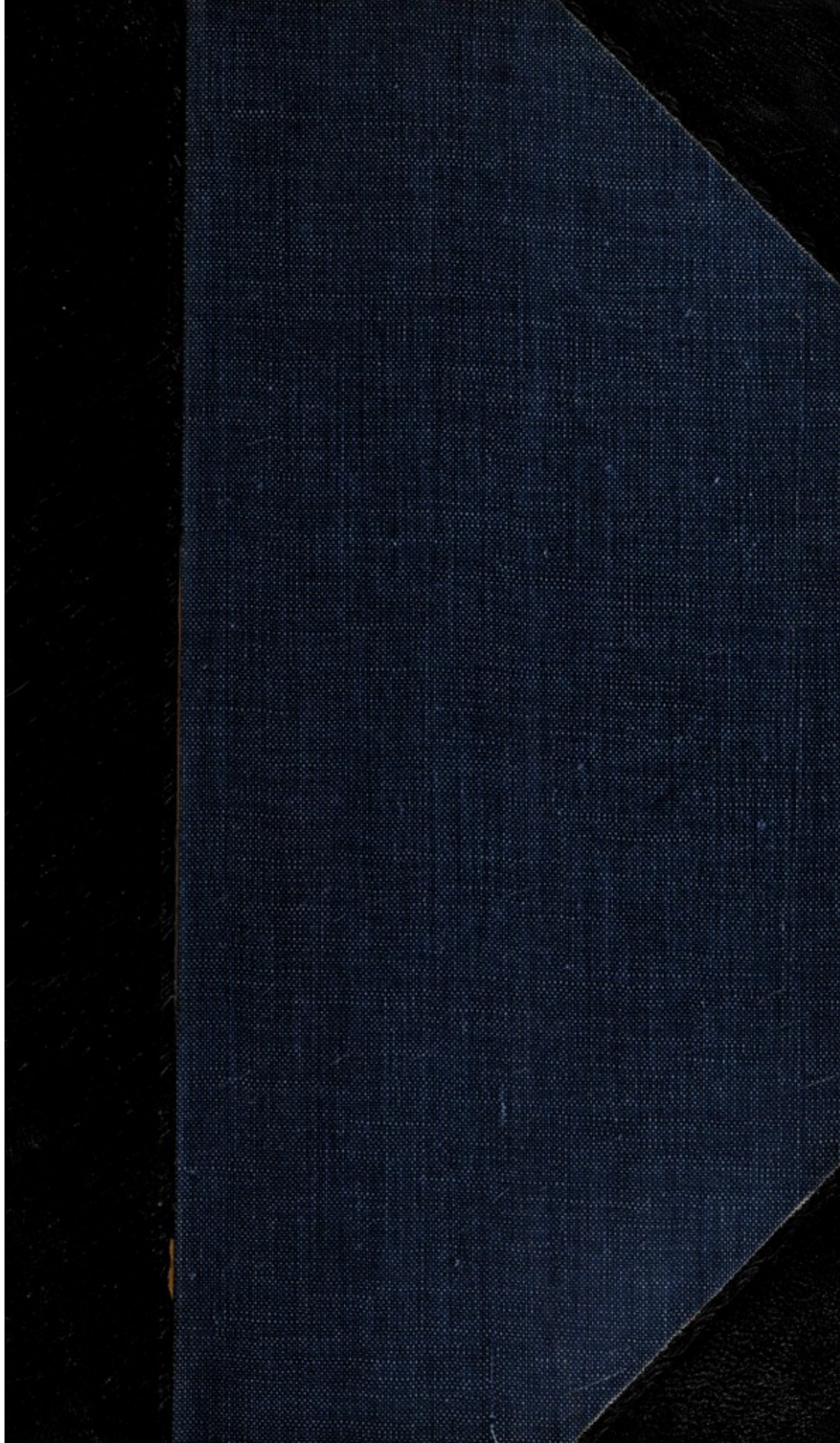
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MEDICAL SOCIETY  
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Nullius  
in  
Verba.

*J. Richardson pinx.*

*G. Vertue sculp.*

Daniel Turner  
of the College of Physicians LONDON.



2-6

A  
DISCOURSE  
CONCERNING  
FEVERS.  
IN  
TWO LETTERS

MEDICAL SOCIETY

To a Young PHYSICIAN.

THE FIRST,

Dissuading from all *Hypotheses* and *Theories*, whether  
*Physical* or *Mechanical*, as vain and delusive.

THE SECOND,

Directing his *Regimen* for the Cure, and his Conduct to  
the sick Person;

With some short, but general Remarks upon the *Pulse* and  
*Urine*, in the Way of Postscript. As also upon the *Crises*,  
and *critical Days* in *Fevers*.

---

The THIRD EDITION, revis'd and improv'd.

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By DANIEL TURNER, M.D. of the  
College of Physicians in *London*.

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*Neque enim erubescendum est, si haud semper liceat, qua ratione,  
Morbos aut gignat aut abigat Natura, suspicari: Saltem honestius  
est nos aliquid nescire nos confiteri, quam tandem in opinione fictâ  
atque vanâ convictos, turpiter erubescere.*

*Freind's Com. de Febris.*

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L O N D O N:

Printed for JOHN CLARKE, under the *Royal-Exchange*.  
M,DCC,XXXIX.



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1800

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T O T H E  
R E A D E R.

***T**H O' a Preface to an Epistle may be thought irregular, yet somewhat that occur'd soon after the Publication of the first Edition of this Discourse, will make it the more excusable, if not necessary.*

*In the Advertisement to the first Impression, the Reader was inform'd how these Letters came to be made publick, viz. to prevent a faulty Transcript coming forth unknown to the Author, who has been since apprised of a poor Snarler that would fain have got some Sheets into the Press, if any one would have undertaken them, by way of Answer. The Tendency whereof I have been inform'd by one who had a Sight of the Manuscript, was, to prove the Author inconsistent with himself, as decrying the Service of Mathematicks and Mechanicks in the Cure of Diseases, whilst eulogising some Improve-*  
A 2ments



*ments made thereby, and citing several Writers that have excell'd therein.*

*But this Objection surely must be made from a great deal of Ignorance, or as much of ill Nature, because the Design of the Author [very manifest through the Tenure of both Letters] was to caution a young Physician in his attending upon Fevers more especially, how he founded any curative Intentions upon Theories or Hypotheses thence borrowed, or undertook to explicate their Phænomena by any such; for that it might so happen when he had this way harangu'd most learnedly, and given many Proofs of his scholastick Acquirements; when he had, I say, more Mathematico, laid down his Postulates, his Axioms and Theorems, making all out in his own way, there might not be one Word of Truth or Fact, could we be led into Nature's Secrets, or her inscrutable Process during the febrile Conflict. So that if for this Cause he has advis'd his Friend, in his Conduct at these Times, to be more diligent in observing her Motions, and rightly distinguishing such Characteristicks only, as may enable him to make the surer and sounder Judgment of the proper Genius of the Fever, than in building*



## P R E F A C E.

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*building romantick Theories, or laying Super-structures upon disputable Theses, however he may offend the Compilers of some such, he cannot imagine that any prudent Practitioner, who has the Good of his Fellow-Citizens in view, will be displeas'd at his so doing.*

*Whoever will take the Pains to look over a late Performance of this kind, which has an equal Claim to a Discourse of Phantoms, with one of Fevers, will soon see how far short it comes of answering its Title, viz. A Practical Discourse upon the present Epidemic Fever, or how the Cure thereof is to be further'd by any thing laid down therein.*

*So fond indeed are some Gentlemen of their Talents this way, that the most abstruse or intricate of Nature's Motions, cannot escape their Explanations, who rather than be thought ignorant of any thing that passes at these times in the human Fabrick, either in respect to the solid or the fluid Parts thereof, will be attempting some way or other [no matter whether true or false] to solve the same: and it is surely against such Theorists, such Hypothetical Schematists (who forsaking Nature and her Dictates, are busying themselves constant-*



*ly with their Machinery, their Chymical Analyfes, and chimerical Principles, applying them to certain States and Conditions of a feverish Blood, whose Causes are I might say in-vestigable many of them, and will be ever so to the human Understanding) that every true practical Physician ought to be guarded. For as well may the Taylor take Measure of a Spectre, in order to fit the same with a Suit of Apparel, as the Mathematician or the Mechanician find out any Theory, or invent any Hypothesis, which will constantly hold good in the several Species of Fevers, or afford any solid Instruction to the Artist, how to cure the same. Of the two, it may so happen, that the Patient may suffer less under mere Empery, than by one that is bigotted to some specious Hypothesis.*

*The Charge brought against the second Letter, is this, that the Author has given his young Physician to understand there is nothing else requir'd of him, in his Attendance upon Fevers, than to prescribe Pulv. e Chel. Canc. C. Conf. Lujul. or the Lapis contrayer. an Allegation so false, as will appear to every Reader thereof, that nothing but the most impotent Malice could have furnish'd.*



P R E F A C E. vii

*It is allow'd, these Remedies are advised to be prescribed at some times, rather than others more uncertain, whereby he may reap the Satisfaction of doing the least Harm [and I am sure he is a happy Man that never did any in Fevers] till Nature by some better Diagnostick than he has yet gained, lets him into a farther Knowledge what must be done. For although the more antient and better experienced, are allowed at some times to make what they call a Push for Life, yet it is not for the Tyro, notwithstanding all his Academical Acquirements, to throw the Die whether he shall kill or cure. The considerate Mechanick will draw the Wedge where he perceives it goes not right, and try another better suited; whilst the bold and ignorant drives on, let it rive and tear as it will, rather than have it thought he was out in his Calculation either of the Force apply'd, or the opposite Resistance. The Simile is coarse, but the Application easy. In short, as it will appear from the Discourse itself, that these Charges against the same are false and malicious, so if it conduce to make his young Gentleman an honest, safe and practical Physician,*



*more particularly in the Cure of Fevers, 'tis what the Author aims at, who remits him elsewhere for the Art of Prattling, laying down Postulates, and solving Problems. Of which, in a practical Disquisition concerning the same, he believes there is little Use.*

*I might observe, what I have heard farther objected, that the first Letter is most of it Quotation: and this the Author readily allows; for his Design as above, being principally to dissuade the young Student from falling in with Theories, or building upon phantastick Schemes, in the Cure of Fevers, or attempting mechanick Explanations in Things doubtful and disputable, by which he might expose himself to the grave and judicious, he believ'd he could not do this with more likelihood of Success, than by exposing several such, and shewing their Uncertainty, their Danger and their Insufficiency for establishing a sound or rational Practice in these Diseases: and if he found the greatest Masters in this Way, disagreeing among themselves about several physical Axioms; some of them very candidly acknowledging, that through the want of Data, Mathematicks and Medicine must be often incompatible: when finding  
others*



*others in their mechanick Solutions of several Phænomena, as well in regard to the Cause of the Disease, as the Cure thereof, very discordant one from the other, each running a wild Goose's Chace in his own Way, and leaving the Case in itself as unintelligible as before. He might be the more easily brought off from this learned way of trifling, and invited to pursue, as he is advised, a steady Observation of Nature only, in her Efforts at these Times, to throw off her Enemy, and free her self from her Burthen: taking curative Indications from the Symptoms themselves, as they severally present, and not from Whimsies, which possibly have no Foundation but in the Brains of their Founders; marking constantly the Issue or Success attending, till he has made himself acquainted so far as he can, what kind of Fever he has to deal with, and the Method, which, by constant Experience, he perceives best suited to subdue the same. For as our Sydenham (whom you will find very often quoted in the following Pages) has justly observ'd in the Preface to his Works. ' As it often happens  
' that the Face of the Disease varies according  
' to the various Processes of healing, so some  
' Sym-*



‘ Symptoms will rather proceed from the Physician than from the Disease itself, when under Nature’s Guidance: since we find the same Distemper differently managed, will have different Appearances, insomuch that unless great Caution be used, our Judgment about some Symptoms will be very uncertain.’

*I have nothing farther to acquaint the Reader, unless I add, that at the Request of my Bookseller, he is now given to understand the Author is*

*His Friend, and*

Devonshire-Square,  
Aug. 18, 1732.

*Humble Servant,*

DANIEL TURNER.

ADVER-



## ADVERTISEMENT.

THE following Letters, first written to a young Physician, who had desir'd the Author's thoughts about this Subject of *Fevers*, together with those of some modern Writers, drawn up in such manner, as might be proper for his own Information, falling into a third hand, a hasty Transcript was made thereof, with design of conveying the same to the Press: of which being inform'd, to prevent a maimed Copy coming out, he promis'd to revise them at his leisure, and having made such addition and alteration as might render them more useful, consent also (if thought necessary) to their publication.

If any Gentleman should think himself wrong'd, in that his opinion is expos'd, it must be without cause; since the Author has avoided meddling with any one's private Sentiments, and brought nothing upon the Stage, that has not been openly avow'd, or divulg'd in print. It is surely every Man's duty to stand on the side of Truth, at least what he thinks such, (*Amicus Socrates, Amicus Plato, &c.*) as well as to caution against Error, especially where Life may be thereby endanger'd; and provided this is done without personal Reflection, no Man can justly or reasonably complain.

As it was another part of his Design, to inform this young Gentleman's Mind, as to his moral Conversation; so if in exposing the Immoralities of others, who are still nameless, the better to draw him off from ill Examples, the Persons reflected on, should think themselves ill treated, this also would be



## ADVERTISEMENT.

be as groundless, because he points out no particular Person; but if those who are really meant, make no scruple thus to publish their shame, why should they think it strange that some others should observe them, and resent such unseemly behaviour in a sick Man's Chamber, of which no one can be guilty, who has not surely first shook hands with his *Reason*, how wise soever he may seem in his own Conceit, as well as his *Religion*, if ever he had any.

It may be farther necessary, he should make Apology for so rigidly opposing the Method of late introduced, of Practice by *mechanic Theorems*, or taking physical Indications thence; as if a Man could not be an able *Physician*, unless first an *Algebraist*, and capable of reducing *physical Quantities* and *Numbers* in the Body of Man, to a *mathematical* Standard: Indeed the many foul and fatal Errors he has seen committed, particularly in the business of *Evacuations*, more especially about the Problem of *diminishing one Secretion by the increase of another*, and *vice versa*, by some too opinionated Men in this way, has made him more wary of pursuing this Course farther than Observation in the like Cases, or a well-grounded Experience, will justify the same; and he hopes the pardon of these Gentlemen of this *exalted Genius*, if he is so unhappy to differ from them, in believing that these two will be always the safest Guides to the practical Physician.

T H E



THE  
FIRST LETTER  
TO A  
YOUNG PHYSICIAN,

Diffuading Him from all *Hypotheses*  
and *Theories*, either *Physical* or *Me-*  
*chanical*, as vain and delusive.

S I R,

**I**T may perhaps seem strange to some, if  
not to you, that any Person's Thoughts,  
and much less mine, should be still  
wanting, or thought necessary upon a Dis-  
ease so raging for thousands of Years past,  
and after so many abler Pens employed there-  
on; a Disease which Dr. *Sydenham* \* tells us,  
takes up at least two thirds of the whole  
Tribe, and often carries away more People

\* In his Epistle to Dr. *Cole*.

than



than all the rest. A Disease so common and withal so fatal in the Days of *Hippocrates*, that out of forty two he gives us an account of, he had the Misfortune of losing twenty five \* ; and yet, as you have sometimes justly remark'd in private Conversation, whoever looks over the large number of Volumes written upon this Subject, might be induced to believe that the Authors had thought very little more than to dress up an *Hypothesis*, or furnish out some *Theory*: especially our late ones, not dictated so much by *Nature* as their own Fancies. How else, surely, is it come to pass, that whilst she is still the same in all Countries and Climates, and has been, if not before, at least from the beginning of the *Post-diluvian* World; yet with respect to our Writers in *Physick*, particularly about *Fevers*, we have almost as many Minds as Men, as well in regard to the *Cause*, as the *Cure*, thereof.

It has been said by some, there is less Wonder we have made so small Improvement in the Knowledge both of this and

\* As Dr. *Freind* has observ'd in his *Com. de Feb.*

others,



others, since we forfook our antient Guides, and set up for new Discoveries, and *hypothetical* Advances: Among whom I find it the complaint of *Rhases* the *Arabian*, as a late Writer † takes notice, thus,

‘ The Authors who have improv’d this Art,  
 ‘ are not a few, nor to be comprehended  
 ‘ within the compass of a few Years: A  
 ‘ thousand Writers, perhaps for a thousand  
 ‘ Years, have been improving the same; and  
 ‘ he that industriously studies those Authors,  
 ‘ will, in the short period of Life, find out as  
 ‘ much as if he had lived a thousand Years  
 ‘ himself, or employed those thousand Years  
 ‘ in the same Study of Physick: But if the  
 ‘ perusal of antient Authors comes once to be  
 ‘ slighted, what can any single Person find  
 ‘ out? or what proportion can his personal  
 ‘ Abilities, tho’ much superior to others, bear  
 ‘ to the immense Treasure of the Antients?  
 ‘ In short, he that reads not the Books of the  
 ‘ antient Physicians, nor understands some-  
 ‘ thing of the nature of Diseases, even before  
 ‘ he comes to visit, will, when he attends the

† *Freind* in his History of Physick, Vol. II.



‘ sick, either through Ignorance or Mistake,  
 ‘ overlook the Disease, because he does not  
 ‘ beforehand understand any thing of it.’

In the latter part of our Author's Assertion, he is surely right; but the Query now will be, whether this Disease is so well understood, by reading either the antient or modern Authors, as from our daily conversation with the Sick, and heedfully observing how Nature works her own deliverance, when left to her self at any time under like condition? from whence we may be after, the better enabled to assist her by the means of Art. *Hippocrates* (as the same *Sydenham* has remark'd) \* lay'd down this as his principal Axiom, *Natura curat Acutos*, and he delivers plainly their *Phænomena*, without respect to any *Hypothesis*, strictly regarding the Method she uses as well in the generating as in subduing those Diseases. In this only consists the Theory of this *divine-Sage*, as appears by his *Prænotiones*, his *Aphorismata*, and the like; not taken from the Dreams of a precarious *Hypothesis*, but from an Observation meerly

\* In the Preface to his Discourse of *Fevers*.



of this natural Process, or the consideration of *Nature* in the Production of these Disorders in the human Frame, and seeing his *Theory* was no more than an exquisite Description of the same *Nature*, it was reasonable that in Practice his only aim should be to relieve her when she was oppress'd, by the best means he could: allowing no other Province for *Art*, than the succouring of her when she was weak, restraining her when outrageous, and reducing her to order in that way and manner which is agreeable to her, and whereby she herself endeavours to expell them: for the sagacious Man knew right well that *Nature* best judges Diseases, and conquers them also frequently when assisted with a few simple Remedies.

But (which is our great Misfortune) we long ago forsook this antient Guide, and his Method of healing founded upon the Knowledge of *conjunct Causes*, which may be known, and from whence only our curative Indications may be taken, puzzling our Heads in the mean time about such as are remote, and truly inscrutable. So that the Art which we now exercise, contriv'd by Men given to quaint



Words, is rather the Art of prating than of healing.

Of the same Mind surely was his Countryman *Avenzoar*, who tells us, † ‘ that albeit  
 ‘ he had a liberal Education, That he had  
 ‘ learn’d not only what belong’d to a Physician,  
 ‘ but out of a great desire of Knowledge, every thing that was related either  
 ‘ to *Pharmacy* or *Surgery*; notwithstanding  
 ‘ which he lays it down as a Maxim, that  
 ‘ *Experience* is the right Guide and Standard  
 ‘ of a warrantable Practice, and must absolve  
 ‘ or condemn us in this Life and the next :  
 ‘ Observing farther, that the Art of curing is  
 ‘ so little to be obtain’d by *logical* Distinctions,  
 ‘ or *sophistical* Subtilties, that long Use, assisted  
 ‘ by a good Judgment, can only furnish  
 ‘ this extraordinary Talent.’

Yet as on the one side we are told, our Neglect of the Antients, and Contempt of their Labours, has contributed to the small Progress we have made in the healing Faculty : So on the other, we have been charged with Bigotry to their Opinions, and yielding a kind

† *Freind* in his History of Physick, Vol. II.



of implicit Faith to their Traditions; whence farther Improvements have escaped us, and new Discoveries have been prevented, for fear of clashing with the Antients.

Thus it seems, between the too great Neglect, and over-bearing Fondness of Antiquity, we stand culpable in the opinion of either Party: But indeed, when we consider the Method since the time almost of *Hippocrates*, in which more particularly the nature of *Fevers* has been handled; how little Profit is to be reaped by the young Practitioner from hence, I might say rather what Disadvantage, I need not, I am sure, acquaint you, who are already well apprised thereof; and whom I have heard lament with another of the same Profession \*, that even among the multitude of Remedies, we had almost lost the Art of curing: Or that notwithstanding we abounded with *Systems*, *Practices*, *States*, and *Histories* of Physick, for the most part, set forth by those who have been little conversant in Practice; yet are we in a manner de-

\* Editor novæ Editionis Lommii de Feb. in ejusdem Præfatione.



stitute of the most useful, *viz.* the *Histories of Diseases*, like *Sydenham's* copied after *Nature*, or impartial Registers of Practice laid down with such just and adequate Rules, as are necessary for steering safely the *medical Compass*, divested of *Hypothesis*, *Theory*, or *Speculation*.

For as that honest Man takes notice \*,  
 ' in writing an *History of Fevers*, as of all  
 ' other Diseases, every *philosophical Hypothe-*  
 ' *sis* that has inveigled the Writer's Head,  
 ' ought first to be set aside: that the clear  
 ' and natural Phænomena, how small soever,  
 ' may be the more carefully remark'd. For  
 ' it is scarce to be imagin'd how many Er-  
 ' rors have been occasioned by these Writers,  
 ' who assign such very commonly as are no  
 ' where to be found but in their own Imagi-  
 ' nations: or if it happen that any one falls  
 ' in with their own Hypothesis, this they  
 ' will be sure to magnify, neglecting in the  
 ' mean time all others that make against  
 ' them, or slightly passing by them, unless  
 ' by some philosophical Subtilty, they can  
 ' force the same to make it serve a turn.'

\* In his Preface to his Discourse of *Fevers*.



We have one *Freind*, 'tis true, among a whole *College of Physicians*, who has taken much Pains this way, and to whom we are therefore as much indebted; but what is this among the great number of learned Men, who are truly qualified farther to improve this Art by their Observations, yet choose to remain silent? What the *Bard* \* has done being confessedly rather for the use of the Ladies in the Country, than the Practitioner here in Town: And truly had the venerable Gentleman saved himself the Pains of his late Performances, it had been possibly more for his Reputation: Since every one knows, whilst another turn was to be served, there was no Man ran farther upon the Pomp of Medicine, or made it more a Mystery than himself: And that end being answered, to expose the same now at last to the common People, what is this but like another  $C\frac{\text{ulphur}}{\wedge}r$ ,  $S\frac{\text{almo}}{\wedge}n$ , or  $Q\frac{\text{uin}}{\wedge}cy$ , to set up a Physician in every Family, or to make every one his own? by which more People have been ruined and undone, through Mistake in the case, an ill-timed Administration of a good Medicine, or

\* Sir  $R\frac{\text{ichard}}{\wedge}d$   $B\frac{\text{lackmore}}{\wedge}r$ .



some other Over-sight, than would by all their Diseases, had they been left only to Nature.

But to instance now in some of these *hypothetical* Writers, I will begin with a certain *Physick Professor* \* well known to us both, who has in a manner discharged the last Stages of the Blood, of any thing inimical to our Bodies, and divested the same, together with the Juices thence secreted, excepting the *bilious*, of any noxious Qualities; whilst the Seat of the Disease, whether *acute* or *chronical*, is placed in the *Alimental Ductus*, or the *Primæ Viæ*, by which are understood the Stomach and Guts; whence other Remedies, how potent soever, and which have been found useful to subjugate the same, are hereby in a manner cashier'd; and such only as operate on these first Passages, that is *Vomits* and *Purges*, are entertained: to prepare the way for this very singular *Regimen* you have heard farther that *Oils* are to be administred, with a view of sheathing the Parts from the Depredations of these *bilious Salts*, as well as fitting them for expulsion by the *ἄνω καὶ κάτω Catharsis*.

\* Dr. *W<sup>ισίδωρος</sup>* d in his State of Physick and Diseases.

Thus



Thus has this learned Gentleman and great *Naturalist* prevailed with many, even of the Female Sex, to run this *vomiting*, *clystering* and *purging Gantlet* daily, or each other day, for six weeks or two months successively, to get rid of a supposed *Aq. Fortis* in their Stomachs, giving rise to some Complaint, how distant soever from the same. A *Vomit* over night, a *Purge* next morning, with an *oily Clyster* three or four hours after. Next day an *oily Draught*, or a *Vomit*. The day following a *Purge* and an *oily Clyster*; and so *de die in diem*, till the sick Man grows tired, or being quite spent, is forced to give over.

And this Method I have heard also has been pursued, without regard to the already over relaxed Fibres of the *Ventricle* and *Intestines*, the slimy *Saburra* on the plucky Coat of the same, or phlegmatic Infarctions of their Glands; much better removed by *Vomits* (where such are wanting) of another kind. The *Idiosyncrasia*, *Nausea*, *Anorexy*, *Dyspepsy* or *Apepsy*, after once emptying the same Passages, requiring a different Management, as by the *Amaro-aromatica*, *chalybeata* & *corroborantia*: But such is the Persuasion of the



Doctor, be the Symptoms whatever, the Source of the Disease is here, and accordingly down goes the *Oyl*, to blunt the offending *Salts*, then the *Vomit* to discharge them: But this not sufficing, next day a *Purge*, and up must go the *Clyster*, to fetch off what was got too far out of the reach of the preceding *Vomit*.

It were needless to give a Catalogue of Distempers that are thus to be vanquished according to this Author, since all are concluded under the same; I need not re-mind you of a Person who told us he had taken several Quarts of *Oyl*, two Dozen of *Clysters*, with a like number of *Purges*, in less than six Weeks time, to get rid of an *ischiadick* Distemper, which still continuing, was after removed by an *Epispastic* applied upon the pained place, without a Grain of Physick of any sort; nor have I leisure to acquaint you how vain and fruitless the same Course has been to many others whose Stomachs (some) have been thereby so nauseated, that neither Physick nor Food, for a long time after, could be retained; the very Sight of the *Oyl* having set some tender Stomachs upon retching, as that of the *Clysterpipe* has been ready to do



others, upon the double Operation ; of which myself was once a Witness.

But it were surely paying too great regard to a whimsical Opinion, to enlarge further thereon; especially since the same has been long since animadverted, in a Discourse by way of \* Answer to what the Doctor has made publick in relation thereto.

The next I shall observe under the same *Class*, shall be that of another very singular Man, † who at his first setting out was resolved to be taken notice of, for Novelty likewise of Opinion ; which was, that our Stomachs could never abound with too much *Acid* ; and that the contrary Quality, *viz.* the *Alkaline*, was the Root of Diseases, as well Fevers as others : Hence the *Orange* and *Vinegar* Merchants Interests were to be promoted : The *Spirit* of Sulphur, and *Vitriol*, the *Cream*, *Crytals*, and *Vitriolate Tartar*, were, like *Salt*, to season all Things, and four *Pickles* the only Condiments to our Foods. These were to take off the Effervescence of the

\* Q——cy's Remarks upon W——d's State of Physick.

† Dr. C——ch.



Blood in feverish Ebullitions thereof, to incide the viscuous Humour, drain away all tartarous scorbutick Salts by the Kidnies, fortify the Stomach, promote Digestion, brace up the relaxed Tone of the same part, excite Hunger; in a Word, to allay all preternatural Ferments, arising by means of *alkalious* Salts: So that in short I know no Man to whom the following Remark of Dr. *Freind* is more applicable than to this Author, who having observed the Mischief of a *hot Regimen* in Fevers, delivers himself thus, on the opposite Side: *Est & alia huic diversa Insania, quam insaniunt nonnulli quorum in Acidis, posita est omnis curatio: Quique spem nullam nisi in Aceto, aut pomorum agrestium succo collocant, quasi quia Metus sit ægrotum comburere, ideo protinus frigore enecare oporteat* \*.

Of a contrary Opinion to this, was one perhaps of as sour a Temper †, however a more fortunate Practitioner, the wealthy *Alkalinus*, who seem'd, upon a much more reasonable Foundation, to have taken up a

\* Comment. de Feb.

† Dr. *Radcliffe*.



quite different Persuasion, *viz.* that an *Acid* was the chief Enemy to our *English* Constitutions, and woven, as it were, in a greater or less Degree with most of our Diseases: Wherefore it was rare to find a Prescript of this Gentleman's without one or more of the *Testacea* or absorbent Powders, to conflict with this *Acidity*, if not in the Blood, in the Juices of the Stomach and Guts.

That such an Humour does predominate in these Parts, even of Infants and young Children, we need surely no other proof than the curdled Milk thrown up in vomiting, or those gripy Stools, as the good Women call them, so frequently ensuing; that an *acid* Effervescence is the cause also of the convulsive *Tormina* of these little ones, is as evident, from the same yielding to these *alkaline* Remedies, as to a Charm; that the like gives rise to the Complaint at the Mouth of the Stomach, or upper part of the *Oesophagus* by the *Greeks* named *καρδιαλγία*, also *καρδιωγμός*, by our People the *Heart-burn*, is as manifest from its removal the same way.

Again, that such *Acid*, encountring with other Juices, keeps up a *Luētus* in the Blood  
of



of *hectical*, and some of the *scorbutick* Patients, producing those *colliquative* Sweats and Fluxes which often attend them, is farther apparent from so many of their Recoveries, when timely enterprized, by means of the *Ass's* Milk, and the plentiful use of the said Powders. Lastly, that this *Acid* is so fatal to others, appears also from the sour Eructations, curdly Vomitings, and Gripes with Looseness, when the *Milk Diet*, upon this Occasion, is forced to be laid aside, and the *Testacea* continued; altho' with some other Vehicle, such as the temperating Decoctions of *China*, *Sarsa*, *Eryngo*, or the *Decoctum Album*.

No wonder then this very successful Physician, having found by Experience that nothing came up to these, was so very fond of them, as to make them almost the whole of his *Materia Medica*; insomuch that one of his Creatures, who had raised an Estate under him, has been often heard to say, that *Alkalinus*, to his Knowledge, had acquired above fifty Thousand Pounds by the Powders of *Crabs Eyes*, *Pearl*, *Coral*, and the *Crabs Claws*.

I must own to you, my Friend, that taking



ing this Gentleman for a Guide at my first setting out, I had formerly free access to his *File*, and have looked over many thousands of his *Formulæ*, where, however Cases might vary, the *Testacea* (as Dr. *Strother* \* says) seem'd the *Sheet Anchor*, although directed in divers Forms, both in *acute* as well as *chronic* Sicknesses. He dealt much indeed in *Mineral Waters*, sometimes for *Vehicles*, to wash the others down: But neither will I detain you longer with the Management of this great Practitioner, *great* indeed, on the account of a vast Estate he had acquir'd by a fortunate Practice; yet how far excelling others, in good Literature, good Breeding, or good Usage of the rest of the Faculty, or those related to it, I shall not take upon me to determine; leaving that to others, who were better acquainted with him.

Whilst quitting him, the next under the same Tribe, I mean the *hypothetical*, I shall observe, is one, who I fear did more Mischief than any, if not all the other; I mean *Pyrophilus* or *Philopyrus* † who had taken up a

\* Preface to Dr. *R——f*'s Dispensat.

† Dr. *M<sup>or</sup>ro* in his *Pyretologia*.



Belief that there was a kind of *Venom* or poisonous Ferment, which at these times had seized on the animal Spirits, and consequently that the true and radical Cure of *Fevers*, consisted in the exhibiting such *Antidotes*, as were fit to encounter and subdue the same: such chiefly were the *Theriacal* Compositions, the Confect. of *Mithridate*, the *Elect. ex Ovo*, the *Rad. Serpentar. Contrayerva*, and the like: These, all under the Name of *Alexipharmicks*, were called in, unless the Disease began to remit, and then the sole Antidote was the *Cortex*; as at once extinguishing the *Ferment*, and overcoming the Disease, if the Patient was not destroy'd by the same, or the Remedy.

You are to understand, Sir, by the way, that these *venene Ferments*, thus implicating themselves with the animal Spirits (which our Author here displays, defines their Nature and Properties, as things self-evident) and constituting the different Species of *Fevers*, differ only among themselves in *Degrees* thereof. Thus if the *Venom* which has seiz'd them be of a mild Nature, and they in good Heart, or Condition, they may possibly get the Mastery



stery in twenty four Hours, altho', perhaps, the same Ferment may muster up fresh Force at certain stated Periods: Whence the Rise of *Intermitting Fevers*.

From the next Degree thereof, taking hold of the said Spirits, being now as it were broken, and more violently smitten, so that with their utmost Force and Endeavours, they are unable to contrast therewith, or to gain a Victory in the Space of one Day, two or three, there is then form'd the *Synochus*, or Continual Fever.

Again, from a yet more intense Degree of this *poisonous Ferment*, the Spirits less able to expand themselves or disengage therefrom, notwithstanding their utmost Efforts and Labour, they now grow enraged and tumultuating, are, as I may say, hurried into a State of *Explosion*, blowing up the whole Fabrick; sometimes exciting enormous Vomitings, at others carrying all before them into the Close-Stool; sometimes breaking forth in Sallies both ways at once. Hence the *Inflammatory Fever*, or the *Colliquative*, together with the *Rhuematic*, universal or particular; the *Plurisy*, *Peripneumony*, *Angina*, the *Scarlet*, *Var-*  

4
*riolous*,



*riolous, Morbillous, the Diarrhæa, Disenteria, Cholera and Cholic of the Stomach and Guts, according to the divers Indoles of the Venom, thus affecting the Spirits, with their concomitant Symptoms.*

Lastly, from the highest Degree of the *Contagious Miasms*, ariseth the *Malignant*, or *σύννοχος*, the extreme of which produceth the *Pestilential* or the *Plague* itself; when the *Spirits*, by means thereof, are knocked down in the twinkling of an Eye, at the first onset; and being *impares Congressui Venenato*, resign their Arms, after they have received several Marks of their Enemies Weapons, as the *black* and *blue Spots, Carbuncles, &c.* But here you are to note, that as the *Benign* or *Mild* is sometimes changed into the *Malignant*, so this last may tack about, recover new strength, and turn to the *Benign* or *Mild* (the worst of them in the Beginning taking the appearance of the *febris continens*) accordingly as the *Spirits* are prepared for Battle; for as I have already observ'd, where these are *strong*, and the *Venom mild* in its Nature, the *σύννοχος* is produc'd; but where that is *potent*, and these are *weak*, the *σύννοχος*, which always  
partakes



partakes of *Malignity*, and before it can be subdued, its shape must be changed into that of the *συννοχῆς* \*.

From this *Hypothesis* of the *Venene Ferment* taking seisure in this Manner upon the *Animal Spirits*, our Author deduces these two curative Indications, *viz.* the Extinction of the said *Ferment*, and Relief of the Symptoms.

If the Fever be of the *malign* Kind, the Expansion of the Spirits is to be promoted by *Alexipharmicks* and *Vesicatories*, the former more *mild*, if neither *Convulsion* nor *Coma* are present, and of the hotter Sort, if complicated therewith; but no Purgative is to be administer'd till the Poison is entirely subdued, either by the *Bark* or the warmer *Antidotes*.

I have given you here, Sir, a Translation in a Manner of *Pyrophilus's* own Words †, by which you may see how this learned Physician, after the Example of his Predecessor *Dr. Willis*, is marshalling his Army of Spirits, leading them on to encounter the Enemy, detaching some one way, whilst others are order'd a quite contrary; some firing from one quarter,

\* *Elenchus Capitem* Vol. I.

† See the *Elenchus* aforesaid.



others vanquish'd and put to flight, that had been call'd to a different Post: So that if this be not building Castles in the Air, to be attacked by *Phantoms*, or laying a Superstructure that has no Foundation, nothing can: The Difference indeed is wide in the Consequence, in that, one may be demolish'd without Danger, but by the other, we are sacrificing Mens Lives to a meer *Hypothesis*.

To the same Degree of Inadvertency, not to call it Madness, did this Gentleman carry his grand *Antidote*, the *Bark*, which was thrown in upon every the least Remission, or before any Type was formed that might encourage the same to be given with Safety. It must be own'd he had great Success in curing Fevers, about the Time he compil'd his Treatise upon that Subject, when the Fever, which was then *epidemical*, had undoubtedly a more than common Disposition to the *intermittent* Kind. But should we at all Times, (embolden'd by his Example) fall upon the same Practice in a different Constitution of the Air, how fatal it must often be, I shall leave the most experienc'd of the Faculty to determine: being myself sufficiently convinc'd by divers  
late



late Miscarriages of some, through its ill-timed Administration.

But I shall no longer detain you with this learned Man's Hypothesis, which was level'd rather to burn than freeze the poor Patient to Death; or if he happen'd to escape, it was to be however *through Fire*, as with a View to the same Author, our late Commentator upon *Hippoc. de Feb.* has thus express'd it \*.

*Nam & Illæ ipsæ, quas adducit Historiæ, palam faciunt, plerosque quorum curam habuit ægrotos, aut excalefactos interiisse, aut saltem ὡς διὰ πυρός evasisse.*

And thus in *Fevers*, requiring the most temperate or rather cooling *Regimen*, as those of the *inflammatory Kind*; and particularly the confluent *Small Pox*, the Sick were sure to be scorched up with the hottest Medicines, under a pretext of fortifying the Spirits, against a supposed Poison that had taken hold of them. It was such Practice as this very probably gave offence to *Sydenham*, who that he might avoid one Extreme, was apt sometimes, in all likelihood, to split also upon the other; but enough of this.

\* Comment. 7.



To enter now upon the Definitions of *Fevers*, given us by sundry Writers, would be almost an endless and a useless Task ; as containing very little Instruction, I might say none in the Cure thereof : Thus one tells us, that a *Fever* is nothing more than a *predominancy of the sulphureo saline Particles over the salino sulphureous* ; a second, that the Essence thereof depends upon the *inordinate Elevation or Exaltation of the oily or fiery Particles, above the terrene and watery*. The Chymists make a Stir about their *Acid* and *Alkaly*, contending for the Victory, together with the Discord of their *Principles*.

Our famous *Willis*, who was a *Fautor* to some of these, expresseth himself upon this Head in the following Words \*.

*Veruntamen ipsa febris, est solummodo Sanguis (cum liquore nervoso succo alibili & sero adscititiis) qui excandescencia sua, supra modum ebulliens & per vasa cum impetu citatus, calorem præter naturalem in toto corpore diffundit, ac Febris rationem formalem inducit.*

And coming to explain himself farther upon

\* Opera *Willisij* apud nos Vol. I. p. 63.



the same, he goes on, *attamen quo pacto hoc fiat, non nisi ex Sanguinis ejusdem Natura intime perspecta, & liquoris ejus velut Anatome, Spiritu (scil.) sulphure, sale, terra, & phlegmate, planum habeatur.*

Some others of them have made shorter Work, as well in the Defining, as the Cure, confidently asserting that a *Fever* is nothing else but the *Archæus* enraged; and accordingly boasting of their several *Panacæa's* or *Sedativa*, assure us, that without any regard to Evacuation of *morbid Particles* or *peccant Matter*, the same will allay the Tumult, and render all tranquil, throughout the *animal Government*.

Related surely to this, is the Story of *Cardimelech* and *Microcosmeter*, so formally told by a late grave Writer \* in his *History of Physick*, altho' fit only to be inserted in a *physical Romance*; but leaving this Jargon to the Tribe it belongs, and who under the vail of uncouth Epithets, mysterious, dark and obscure Phrases, or unintelligible Sounds, amuse their Readers with strange Notions of their *Myf-*

\* Dr. F——d.



*ticks* or profound *Philosophy*, as being Nature's chief Favourites, and let into her Secrets: I shall take no farther Notice of them any more than of the *hypothetical* Writers peculiarly so denominated; but hasten to those who are term'd *Mechanical*, where surely we may expect some greater Certainty and Satisfaction, as well as safer Guides to Practice, on the account of the mathematical Demonstration here promis'd us.

But alas! dear Sir, I am afraid we are now as much bewildered as in the former, and that the Certainty these pretend to in their *Theorems*, *Propositions*, *Axioms*, *Lemma's*, *Scholia's*, *Corollaria's*, or whatever they please to call them, will afford us as little help in the Cure of *Fevers*, as those we have now mentioned.

They tell us indeed, that the Body of Man, as of other Animals, is only a piece of *Mechanism*, form'd by *mechanick* Laws: That as the solid Parts are subjected to the Rules of *Geometry*, so are the Fluids to the *Hydrostaticks*; and that there is always an *Æquilibrium* maintain'd between these two, when the *Machine* is in right order, which  
is



is what we call the State of *Health*: Sicknefs being nothing else than a Disorder of some kind, either in the *Solids* or the *Fluids*, by which the said *Equilibrium* is destroy'd, or the *Balance* turn'd to one side or the other.

A *Standard* \* *Bearer* who hath lately furnish'd out a *New Theory of Physick*, reconcil'd to Sir *Isaac Newton's Principles*, is so very fond, and full of this *Balance of Nature*, that we have few pages without it.

First of all, he tells us that all Diseases, whether *Acute* or *Chronic*, 'depend on the  
' *Motions of the Vessels* elevated or deprest  
' beyond the *Standard of Nature*: And the  
' several Degrees of them, to the several Degrees of Contraction or Relaxation of such  
' Vessels; and the Motion of the Fluids consequent thereon; for (saith he) an Augmentation or Contraction of the Vessels elevated, (*do you mind me*) above the *Balance of Nature*, will increase the Division of  
' the Blood; which increased Division of the  
' Blood will augment the Motion, the Quantity and Heat, and so beget a *Fever*; which

\* Dr. R——n.



' is no other than an increased Motion of the  
 ' Blood from a vibration of the Vessels a-  
 ' bove the *Standard of Nature*: For there  
 ' cannot be an inordinate Elevation of the  
 ' oily or fiery Parts of the Blood, as Sir  
 ' R——d B——r supposes, unless the *Solids*  
 ' are equally elevated above the *Standard of*  
 ' *Nature*. In a slight *Fever*, the Blood in-  
 ' creases but little above the *Balance*, as in  
 ' the *Ephemera*, which when of more than  
 ' one day turns to a *Synochus*, which is but  
 ' the same *Fever* farther augmented beyond  
 ' the *Balance of Nature*: this turns to the  
 ' putrid *Synochus*, and this to a *Causus*.

' Again, saith this expert *Mechanician*, as  
 ' *acute Diseases*, such as *Fevers*, proceed from  
 ' the Blood's thus increasing above the *Ba-*  
 ' *lance*; so *Chronics* proceed from the *Solids*  
 ' deprest beneath the *Balance of Nature*.

Upon the first of these, for the sake of its  
 Singularity and Perspicuity, I shall present  
 you with a Thread of his Argument, that  
 you may see how Sir *Isaac* is carry'd all the  
 way therein \*.

\* Vid. New *Theory of Physick* founded upon the Prin-  
 ciples of Sir *Isaac Newton*.



From an elevated Contraction, the Blood obtains a greater Force and Motion; hence greater Division, hence an increase of Quantity and Fluidity: And thus from greater Division, Motion and Quantity increased, must arise Heat, Thirst, with other concomitant Symptoms of a Fever; for the Blood dividing faster than it can be detach'd through the perspiratory Emunctories of the Skin, is the immediate Cause of the Heart's preternatural beating: Which preternatural Division of the Blood, arises from the additional quantity of the obstructed perspirable Matter, added to the natural quantity of the Blood: *but bear a little more.*

The Cause of all acute, inflammatory Fevers, such as the Quinsy, Pleurisy, &c. is from a Contraction of the Heart and Arteries elevated above the Balance of Nature: This elevated Contraction causes the Blood to take up more room by fusing it in the Arteries, which causes a greater glut to be determin'd upon the Lungs, Pleura, intercostal Muscles, than the Vessels of the same can dispense with; which therefore causes Stagnation, turning to an Inflammation, which



' which causes all the Symptoms attending  
 ' these Diseases; but the Cause of *Quinsies*  
 ' particularly is from the Blood's stagnating  
 ' on the Parts of the *Larynx*: And the  
 ' Blood stagnates upon the Parts of the *La-*  
 ' *rinx*, because the Contraction of the *caro-*  
 ' *tid Arteries* is elevated above the *Balance*,  
 ' which causes the greater glut than those  
 ' Parts can detach by the secretory Vessels,  
 ' upon which a Lodgment is made, which  
 ' causes the *Inflammation*, *Fever*, *quick Pulse*,  
 ' and all the Symptoms.' You have heard  
 the Story, I doubt not, of the Butcher that  
 kill'd the Ox, that gor'd the Dog, that wor-  
 ry'd the Cat, that kill'd the Rat, that kill'd  
 the Mouse, that eat the Corn, that lay in  
 the House that *Jack* built.

Having now done with the *Inflammatory*,  
 you shall have a Taste only of the same *Me-*  
*chanism*, in the *malignant Fever*.

' In very *malignant Fevers*, some Parts of  
 ' the Blood are often separated from the Mass,  
 ' when being by the Force of the Arteries  
 ' driven beyond the sphere of Attraction (*the*  
 ' *Balance is laid aside for the present*) they can  
 ' never after join again therewith, because of  
 ' the



‘ the Blood’s *Repulsion*; but assuming to them-  
 ‘ selves an *attractive Power*, (for you must  
*understand, there is in the Blood an electrical*  
*Attraction as well as Repulsion*) ‘ they become  
 ‘ the center of *Attraction* to every Thing that  
 ‘ comes within their particular spheres: Where,  
 ‘ on the Surface thus impel’d, they form  
 ‘ *petechial Spots*, usually accompanying *ma-*  
 ‘ *lign Fevers*.’

Our learned *Mechanician* is indeed so mo-  
 dest, that when descending to the Cause, *i. e.*  
 the primary, of these kind of *Fevers*, tho’  
 he has discover’d that they proceed from the  
 Air; yet how the Atoms are modify’d that  
 constitute those Qualities therein, which be-  
 come so hurtful to us, he does frankly own  
 the same to be *supra Captum*.

There being somewhat so uncommon, I  
 think, in this Gentleman’s close pursuit of an  
 Argument, I shall, if only for your Enter-  
 tainment, deviate a little, to present you with  
 his *Mechanism of Chronics*.

‘ Now, saith he, we are to consider the  
 ‘ Cure of Diseases arising from another state  
 ‘ of the *Solids*, wherein the Blood forms *Vif-*  
 ‘ *cidities*, and of Consequence, *chronic Dif-*  
 ‘ eases;



‘ eases; and the Blood forms *Viscidities*, and  
‘ consequently *chronic* Diseases, when its com-  
‘ pounding Particles go into too close a Con-  
‘ tact; and they go into too close a Contact  
‘ when they receive not due Information from  
‘ the *Solids*, when their contractile Powers  
‘ are impair’d and sunk in their Motions be-  
‘ neath the *Balance of Nature*: As to the  
‘ Cure of these our Business is (*do you observe*)  
‘ to get acquainted with a Set of Medicines,  
‘ that will raise the impulse of the *Solids*, in-  
‘ crease their natural Springiness, and restore  
‘ their *Machinulæ*, upon which their contrac-  
‘ tile Powers depend; which will enable them  
‘ to fuse the Blood, destroy the *Viscidities*,  
‘ and render them small enough to pass their  
‘ *Secretions*.’

From all this *mechanically* connected, hav-  
ing shewn us the Cure of *chronical* Diseases,  
he gives us the following of *acute*, but parti-  
cularly *Fevers*.

‘ That the Ground of all *Fevers* being in  
‘ the Blood’s dividing faster than can be  
‘ detach’d by the several *Emunctories*, from  
‘ an Elevation of the *Solids* above the *Balance*;  
‘ (*which we have now again taken up*) Bleed-  
‘ ing



ing is consequently the best Remedy to take  
off the Tension of the *Solids*, and subtrac-  
ting the Cause, by removing also some part  
of the additional Load. Secondly, To ad-  
minister *Sudorifics* or Sweating Remedies;  
but if Sweating cannot be procur'd, you  
must lastly push by *Purging*, which is to  
be repeated every other Day (*which he as-  
sures you is justifiable by a great Man's Practice  
in a nervous Fever, where no Sweat could be  
raised, till after this Way was try'd by Purging*)  
Observing always to spur on the *Solids* in  
these sluggish Cases, where they are sunk  
beneath the *Balance*. Lastly, If there be a  
great Heat, a dry Skin, a hard Pulse, black  
and dry Tongue towards the height of the  
Disease, and no Sweat can be procur'd; you  
are then to have recourse to Purging, as the  
*Asylum*, and throw, (it seems) the Stress of  
the Cure upon the Issue of the Operation of  
these Medicines.

I have given you this Recital of a new phy-  
sical Discovery, as a Specimen thereof, re-  
concil'd to *mechanic Principles*, or solved by  
those of Sir I. N——n, as the Author terms  
it, that you may judge in what manner your  
Under-



Understanding is to be improv'd, or your Judgment better'd in the Cure of *Fevers*: I might have told you also, how far this wonderful Man has exceeded even Sir I——c himself, who never had Courage enough to define or meddle with the *motor primus* of the *Machine*, I mean the *animal Spirits*, contenting himself with his Principles of *Attraction* and *Gravitation*, whilst our *Adept*, whether by *Fire* or *Water*, dogmatically, as from the *Delphic Oracle*, delivers himself thus.

Both the *Solids* and *Fluids* of an animal Body are endow'd not only with this principle of *Attraction* and *Repulsion*, but there is also in them an *electrical Attraction*: Their Actions are reciprocal, but the first Impulse is from the *Solids*, whence Heat and Motion in the Blood.

Would you know now what it is that gives this Motion to the *Solids*. The *Spirits* give rise to the Contraction of the Heart; the Heart gives Motion to these Spirits: The Particles of the Air (*here comes the Mystery*) and *fine pungent Salts*, forcing into the Lungs, gives the first Principle of Motion to the *animal Machine*;

for



‘ for neither the influx of animal Spirits,  
 ‘ much less the Ebullition and Accention of  
 ‘ the Blood, can be the Cause of the Heart’s  
 ‘ Motion; but rather the same is effected by  
 ‘ the said aerial pungent Salts, pricking the  
 ‘ fibrous Substance of this Bowel, or rather  
 ‘ the Vessels leading thereto; which is the  
 ‘ Origin of all Pulsation, Motion of the Heart,  
 ‘ and Circulation of the Blood.’

Thus Doctor, you see how the *impetum faciens* of *Hippocrates*, which has lain conceal’d as to its *ὄτι* for more than two thousand Years, I may say from the time of the *Protoplast*, and by the greatest Men of past Ages, as well as the present, was deem’d a *Problem* inexplicable: Insomuch that our famous *Lower*, who was as well acquainted with the *Penetralia Cordis* as any Man, did acknowledge that it was the sole Property of the grand *καρδιαγνώσης*, who had form’d this *Viscus*, to know the Reason also of its Motion: How this, I say, is now mechanically accounted for by Dr. R——n; but how he will get over that of the little *fætus Machines*, whose Lungs were never stung nor twitch’d; nor yet the Vessels leading to their Hearts, by



any of these *pungent, fine, aerial Salts*, I know not; and therefore must leave him to find out, whilst I now come to remark some others, more professedly in the *mathematical Way*.

In this number among the Foreigners, we must reckon *Borellus* and *Bellini*, also *Gulielmini*, *Baglivi*, *Bernoulli*, *Leibnitius*, *Morgagnus*, *Hermannus*, *Lancifius*, *Mangetus*, *Astrucius*, *Mariottus*, *Littrius*, *Homborgius*, *Micbellottus*, *Blancus*, *Fantonus*, with some others I could name: Nor among our own Countrymen, must I forget the excellently learned *Dr. Mead* and *Freind*, the late *Dr. J. Keill* and *Pitcairn*, *Dr. Cheyne*, *Jurin*, *Cockborn*, with others.

I am not unacquainted, since it grew modish for Physicians to draw *Diagrams* in their Writings, with the *dumb Language*, or the *conjuring Characters*, as they are named by some, we have had many Smatterers this Way: but whoever thoroughly weighs them with the rest of their Performances, will find they have enter'd many of them as it were by Rote, pickt them out from *Propositions* or *Problems* of some of these; and set them down



to amuse the less heedful Reader: And I purposely omit certain great and wonderful Men this Way, such as that very transcendent Gentleman Sir *Isaac Newton*, as professedly *Mathematicians*, not *Physicians* meerly, with whom our Business is at present: Nor can I persuade myself, that the Inventions of the former were ever intended so much to benefit the Art of Healing, which is not likely to be promoted by any *Letters* of the *Alphabet*, or *Figures in Arithmetic*, placed in what manner soever, neither yet by *Lines* of any sort, as for the Advancement of *Astronomy*, *Geometry*, *Optics*, *Hydraulics*, *Hydrostatics*, &c.

No surely, these great Men in their way, were too well apprized that the want of *Data* at these Times, of which all complain, would hinder any *Certainty*, i. e. *Mathematical*, to be obtain'd: And by some means or other render their *Calculi* very precarious.

For tho' the *Solids* of our Bodies being form'd by their Maker, according to the strictest Laws of *Geometry*, may be, in many Cases, reconcilable to those Rules, as appears evident from one we have already named \*

\* Borellus de motu Animalium.



in an admirable Treatise of the Motion of Animals: Yet are the *Fluids*, wherein most *acute Diseases* (especially that about which we are discoursing) affecting us, are concern'd, so widely differing from any other without us, as well as the Vessels containing them, that the *Problems* founded upon *Hydraulics*, or *Hydrostatics* either, will never reach them so exactly, but that we shall be still liable to commit Mistakes, and to be led into Errors, some of them of the utmost Consequence to Life: Nor will any of these, assure yourself, at any Time, afford Help in the Cure of *Fevers*, where all your *Indications* must be taken from some present Appearance, unforeseen, and which admits scarce any Argument, which is assumed *a priori*.

Alas! dear Doctor, what avails it to us, that we are told, *The Pressure of an incumbent Fluid upon a Solid, is in Proportion to the Altitude? That Fluids running from a larger Syphon into a less, the Liquids run with the greater Velocity in the lesser Tube? But if the total Sum of the Orifices of the lesser Tubes be more numerous than the Area of the transverse Sections of the greater, then the Fluids run*  
*slower*



*flow in the lesser Tubes. What, that Fluids cannot move on, unless the impelling Force conquer the Resistance, for who knows not this! or that in all, there is a Center of Gravity and Gravitation? What, that the Altitudes of Projectiles are to each other in a duplicate Ratio of their Velocities! What, again, that Cylinders are to each other in a Ratio compounded of their Bases and Altitudes! that is, if the Base of one Cylinder be 9, and another 6, and the Altitude of one 4, and the other 2, then are they to each other as  $4 \times 9 = 36$  to  $6 \times 2 = 12$ . Again that Attraction of Bodies is as the Squares of their Distances; or that in a Cone, the greatest Resistance to Motion is at the Vertex: That if the Blood be so vitiated as that the Strengths be augmented or diminished, 'tis the same as if the Blood offended in its Quantity: That the Heat of the Body is in a Ratio compounded of the Blood, its Celerity and its constituent Particles: That Quantities are to each other as the Density of the Radii, and this Density reciprocally as the Distance of the radiating Point, or as the Squares of the same Radii: That secreted Liquors in our Bodies differ in Degrees of Cohesion, Fluidity and Quantity:*



*That a Fluid of equal Velocity with another, but of greater Gravity, gives a greater Ictus than one with equal Velocity and less Gravity : Lastly, (to instance in no more) that in Cones the Resistance is least in their Axis.*

What, I say, avails it to us in the Case of *Fevers*, to be acquainted with such and many more that are prefix'd to a late Treatise of these Diseases \*, with which in Respect to the Cure of the same, they had for the most part, if not all of them, been as well left out.

Whether or not they are solidly founded, I shall not here dispute, much less their Use in other Parts of the *Mechanics*, particularly, as I have already intimated, in *Hydraulic* and *Hydrostatical* Experiments; but whoever considers the *Blood*, as a *Fluid* compounded of divers Parts, and varying from a hundred imperceptible Occasions in its Texture; sometimes running out into a thin *Fluor*, at others tending rather to *Grumescency*, together with its changeable *Impetus* from the Cistern, I mean the Heart, according to the Dispence of the nervous Fluid, now more, then less

\* Criticon Febrium.



interrupted and continued. Again, whoever weighs rightly the Fabrick also of the Vessels through which it circulates, their divers Elasticity, Contraction and Dilatability in one Body from another; nay, even in one and the same Section, at some times, of the same Vessel, from original Formation or adventitious Causes that are inscrutable, at least, during Life, which must influence the Motion thereof: Whoever, I say, will nicely observe these, which shall be presently farther noticed, may soon perceive that no *arithmetical* Proportion, no *algebraic* Calculation, no *geometrical* Mensuration, no *Axioms* deduced from the *specific Gravity* of other *Fluids*, their *Moments*, Degrees of *Attraction*, *Repulsion*, nor the impelling Force by which they are thrown forth their several Pipes, will give us any just or adequate Idea of *Fevers*, much less advantage us in their Cure, which you will find, after all, is to be founded only upon a diligent Observation, not of *Squares*, *Circles*, *Tangents*, *Angles of Incidents*, *Gravity*, *electrical Attraction*, or the like *cant Words*, (for they are no other when inserted in a practical Discourse of *Fevers*) but of *Nature*, which way moving to



help herself, and *Remedies* by Experience found out to forward such her Endeavours; agreeable to what the same Person has laid down in another Part of his Treatise, *viz. That Physicians must at all Times avoid begging the Question, or affirming any Thing contrary to known Experience, but proceed with Reason, back'd by the same, which is the sole Prop they can securely rely on.*

I must expect to be censur'd by some of these worthy Gentlemen, as an Enemy to those *physical* and *mathematical* Disquisitions, by which alone, they say, our Art can be set upon any solid Foundation, and the *Phænomena* of *Health* or *Sickness* intelligibly explain'd; but I desire they will consider that I am far from reprehending any such Enquiries, among speculative Persons or otherwise, so far as we are thereby afforded any Help in our Way of healing the Sick, or furnished with satisfactory and certain Accounts how the *Phænomena* of human Bodies, either *sound* or *diseased*, are reconcileable to *mechanic Laws*, about which I have often busied myself, and doubt not but greater Light has been given to Physick hereby, in this last Age, as well as  
larger



larger Insight into the Nature of some Diseases, than by all the mystical Learning of the Antients, or the as unintelligible Explanations of the same, attempted since upon some other Principles: And I could wish it were possible (although I think, I must own, that it is not) with Dr. Freind, that some able Hand would set this Matter in a true Light, and illustrate the same, so far as may be from the unalterable Laws which Nature has imprest upon all Matter and Motion\*; for since the human Body (as he observes) is nothing else but a fine Contexture of Solids and Fluids, which observe the Rules of Mechanism, it is amazing to find that Men should think of any other Principles than the mechanical, to explain it by.

But then surely it is amazing also, that any Man should take upon him to explain those Appearances therein, which however in themselves mechanically produced, he is never like to be thoroughly acquainted with the *Modus* of their Production, especially if being out in his Conjecture, the Life of his Fellow Creature may be in Danger: For as our Coun-

\* See his History of Physick.



try-Man *Sydenham* has observ'd, ' there are  
 ' two Sorts of Men (each in their turn liable  
 ' to do Mischief) who obstruct the Improve-  
 ' ment of the Art of Physick: The first,  
 ' those who adding nothing to the Increase  
 ' of the Art they profess, despise others who  
 ' do improve it, hiding their Defect and  
 ' Sloth under the Pretext of Reverence to *An-*  
 ' *tiquity*, from whence they will not recede  
 ' a Hair's breadth. The second, on the con-  
 ' trary, acting out of Levity of Mind, or  
 ' affecting the Title of *profound Wits*, trouble-  
 ' somely intrude Speculations, many of them  
 ' out of the Way, to advance the Cure of  
 ' Diseases, not so properly shewing the Way  
 ' to Physicians, as making them stray from  
 ' it, by their *ignes fatui*. Nature, saith he,  
 ' has bestow'd so much Wit upon these Peo-  
 ' ple, as enables them to trifle learnedly, but  
 ' has fail'd them in the prudential Part, where-  
 ' by they should know that they can under-  
 ' stand nothing any other Way than by *Ex-*  
 ' *perience*, which unveils her; for the abject  
 ' Condition of the human Mind, being un-  
 ' able to rise to an intuitive Science, is re-  
 ' strain'd to the narrow Bounds of Know-  
 ' ledge,



‘ ledge, which it receives from the Senses; so  
 ‘ that notwithstanding a Man may become  
 ‘ prudent, as the human Lot will allow, yet  
 ‘ a *Philosopher*, according to the august Ma-  
 ‘ jesty of the Name, no Mortal can be; and  
 ‘ therefore all the Physician’s Philosophy con-  
 ‘ sists wholly in searching the *History of Dis-*  
 ‘ *eases*, and for *Remedies*, found only by *Ex-*  
 ‘ *perience*, that are able to overcome them;  
 ‘ observing the Method which right Reason,  
 ‘ founded on the common and natural Way  
 ‘ of thinking, not the Commentaries of Spe-  
 ‘ culation, dictates to him \*.

What tho’ it be granted, as our learned  
 Commentator † has remark’d, that *no Man*  
*goes about to account for the Motion of a Watch,*  
*by the precarious Principles of Acid and Al-*  
*kali, or any other than the mechanical, by which*  
*it is put together.* Is it not also granted that no  
 Man, by the same Principles, can rightly dis-  
 cover the several Defects in that little Machine,  
 unless the Artificer, who being thoroughly  
 acquainted with every Part of the *Movement*,  
 can only see where some Defects thereof

\* Sydenham’s Practice of Physick.

† F——d, in his *Hist.* of Physick aforesaid.



may happen to lie conceal'd from other Eyes? So likewise, I fear, notwithstanding all Improvements this Way, it will sometimes fall out with the *animal* one, where the Disorder is visible only to an all-seeing Eye, and where less Abilities than the Maker's, will be unable *mechanically* to adjust the same.

Let us then, good Sir, where there is Room, argue as much as may be, upon these Principles; but let us not pretend to found curative Indications, when Observation and Experience run counter, and will not justify the same; for if our *mechanic Theorems*, how nicely soever framed, are not confirm'd by these, what plainer Demonstration can we have (and surely this is *Mathematical*) that we mistook the Case? or that we are out in some part of our Account, whereby, as an Oversight in the minutest Fraction, overthrows the whole Computation, and lays us under a Necessity of a fresh Calculation? So happens it here, but with this unhappy Difference, that by the one we only lose our Labour, by the other, it may be our Patient's Life; it is then surely your safest way (when so inclin'd) to discourse *mechanically* of the Disease and its  
Symp-



Symptoms, over the Bottle, but to practise by *Observation* at the Bedside of the Sick: All which I contend for, being this, that we carry not any of our Disquisitions of this kind, to Subjects unto which, through the imbecillity of our Intellects, they cannot with certainty be applied, at least in such manner, as to forward the Recovery of the Sick Person.

I hope they will consider, we are not now applying the *Rule* to Bodies inanimate, or putting simple *Fluids* into the *Balance*: We are not counting the *Moments* of these under their several Pressures or Impulses, but the *Moments* (and surely momentous is the same) of *human Blood*: That the Lives of our Fellow Citizens, with which we are entrusted, are in the Scale: Shall we then put these upon a very uncertain Reckoning to be made this Way, which considering the Disagreement among themselves about some *physical Problems*, is scarce likely to be obtain'd at all?

And truly, Sir, whoever considers the Nature of *Fevers*, especially such as I call *Mali Moris*, will see abundant Cause, if I am not deceived myself, to think no *Rationale*, either *physical* or *mechanical*, is to be form'd there-  
on:



on: And that to pretend to argue thence at some times, is but to expose ourselves to the Smile of the more eminent Artists; for undoubtedly all we know, or can understand of these, is this, that there is somewhat foreign, or preternatural got into the Blood, whether *extrinsic*, from the *Atmosphere*, or *intrinsic*, through some trespass in the *Nonnaturals*, arising within its Mass, which being hereby exagitated and disturbed, *Nature* (give me leave to use the vulgar Expression) now rouseth, and endeavours to free herself thereof: That sometimes, notwithstanding all Assistance from Art, she is forced to succumb; at others, of herself, even without such Aid, she gets the upper hand, and throws off her Enemy; but how this is transacted all this while in the *Sinus* of the Blood; how she fits or prepares this Matter to be carry'd off, nor yet by what Passages or Outlets, is *a priori* to us impenetrable, and like to be so: Nor can any help from mathematical *Problems* instruct us how she operates at these Times, or afford Help, not founded upon *Experience*, to support her under the Conflict; for as we know not the Instruments she intends to use,

nor



nor the way she will take at all Times, to discharge herself of her Burthen; so neither will the Knowledge of the *Make or Texture, the specific Gravity, Force of Attraction, or the like*, of any Remedy, either simple or compound, the better enable us to form a Judgment what it can effect, before it has been administer'd, and found serviceable upon Trial, to answer the Intention.

I dare say none will alledge, that any one of these was ever given at first from the Knowledge meerly of their component Corpuscles (were they to be found out) or their Propriety hence, to answer this or the other physical Intention, whether obtain'd in the way of chymical *Analysis*, or any other.

As finding *Opium*, hereby, for Example, fitted to relax and take off the Tension of the *Membranes* and Fibres of the Brain, occasioning the Inquietude, with attending *Vigil*, thereby procuring Ease and Rest. That *Mercury* after the like Examination of its Parts, was found more fit than other Minerals, or Drug whatever to fuse the Humours, and colliquate the Juices, in such Manner as to force them to run off by the Glands of the  
*Fauces,*



*Fauces*, by which the whole Mass might be as it were refin'd and depurated: That *Steel* upon some such Trial, was first observed better qualified than others, to invigorate the Blood, break its *Cohesions*, divide its *Lentor*, and by these Qualities enabled to restore a good Complexion to *Cachectics* and *Chlorotics*; or that lastly, having in like Manner scrutinized the *Crocus* of Antimony, 'twas found by some of its component Particles, that being therein steeped for some Hours, it would imbue the Wine, and that without loss of its specific Gravity, with a Power of inverting the *peristaltic* Motion of the Stomach, and raise that particular Operation therein, which we call Vomiting. That these, I say, were therefore called into Use, upon the several Accounts here mentioned, but such particular Effects having been found the usual Consequents of their several Administrations, after repeated Trials, they have been therefore for these Reasons, and for these only made use of, when there seemed to us Occasion for them.

From all which I would only infer, that this same *Experience*, founded upon a just and sedulous Enquiry, and Observation of



what has, and is farther likely to ensue, under the same appearing Circumstances, must guide us in all such Cases, where through the Nature thereof, we can have no *Præcognita*, as I think in *Fevers* we have not, without regard to *Propositions* or *Theorems* of any Kind, which serve only to puzzle or perplex, and too often, through Mistake in Computation, subject us to fatal Errors.

I could tell you how I have been sometimes interrupted by Persons affecting this way of Conversation in the Practice of Physick: Particularly one, whose Head is ever full of the new Mode, was lately call'd in upon me: My Patient labouring under a *Peripneumony*, had been bled three Times in so many Days, a Blister had been apply'd between his Shoulders, and several Pectorals administer'd; but the *Dyspnœa* still continuing, with little Expectoration, and that a viscid Phlegm, hard to be rais'd, the oily Medicines effecting nothing, I propos'd now in Consultation, the *Oxymel Scyllit.* when the Gentleman objected the Hazard hereby, of relaxing the *Bronchiæ*, together with their orbicular Fibres, and hindering their contractile Power, which was  
now



now wanting to squeeze out the viscid Humour obstructing the same: And therefore he was for *volatile Medicines*, as better fitted to invigorate the nervous Fibres, to divide the *Lentor*, destroy the *Cohesion* of the Blood, and give a Spring to the *Machinulæ* of the Lungs.

I gave little Heed to this Harangue, only smil'd, and left him then to act as he thought proper; but acquainting the Patient's Friends with the great Danger he was in, having agreed upon more *Blisters*, I desir'd a third Person might be sent for, to meet us the same Day towards Evening. When by Appointment, coming together, and having farther consider'd our Patient's Condition, the *Oxymel* being mention'd, the same Person repeating his Fears of relaxing the *Bronchus*, &c. the grave old Gentleman reply'd, pray Sir, no more fiddle faddle, if you can tell us upon your own Trial, of a better Remedy than the *Oxymel* on this Occasion, let us have it; since there is no Laxity in the Bowels to forbid it, never fear the *Bronchiæ* being relaxed; if we can so far relax the Phlegm, as to fit it for Expectoration, 'tis all we have to do, nor  
do



do I know a better Remedy under the present Circumstances of the Patient, tho' all, I fear, will be insufficient; accordingly the Mixture was prescribed, but (suitable to the Prognostic) the Patient died next Day.

Not long after I had the Honour to meet the same Gentleman in a *pleuritick* Case, and here the Scene was chang'd: I know not how, nor what Axiom we went upon; but the *Oxymel* was now propounded to me. The Patient had taken freely of *pectoral Apofems*, *oily Draughts*, with *Linctus's* between whiles of the same Oils: He had also been as largely blooded four several Times, the Pain still continuing with as great Severity as ever; whilst I, who long since learn'd from *Sydenham*, and had the same Lesson confirm'd by the judicious Dr. *Freind* \*, objected now against this, and told him, I thought all Pectorals of little service in this Case, however preferable to other Remedies; the Disease lying out of their reach, as to Expectoration, unless complicated with Inflammation of the Lungs, or some way communicating with

\* See his Chapter of a *Pleurisy Comment. de Feb.*



the same, as in Cases of adhesion the one to the other: I therefore offer'd my Thoughts, since the Pulse flag'd, and discourag'd more Blood being drawn off by the Arm, to set on cupping Glasses on the pained Side, with light Scarification: Giving now the *volatile Medicines*, such as the *Spir. C. C. per se*, which he had recommended in the former: He ask'd, whether I propos'd the Cup by way of *Derivation* or *Revulsion*? I told him by the way of *Experience*, whence I had known much Benefit accrue in the like Cases; or where it was hazardous to proceed farther by the Lancet, through the Patient's Weakness. At length, after some *mathematical* Bickering, this was comply'd with; and thereby, together with the *Volatiles*, intermix'd with Boles *ex Sper. Ceti cum pulv. e chel. Canc. c.* with more Blistering he contended for to break the *Lentour*, divide the *Cohesions*, &c. we recover'd our Patient out of imminent Danger.

This, Sir, only for Illustration of what I must contend for, that a steady and diligent Observation of *Nature*, conflicting with a Disease, whose *Ratio formalis* we are not certainly acquainted with, together with what  
upon



upon a series of Success, we have found serviceable on the like Occasions, will conduct us most securely to the method of Cure: And whatever Liberty these Persons take with the Characters of others, who talk not in their way, on the foot of *Arithmetic* or *Algebra*, we find that the best Practitioners among them, can throw away their *Theorems* upon entering the Chambers of the Sick, and readily come into Measures with us, viz. *Observation* (assisted with Reason and sound Judgment) of what they have found most useful, under the like Circumstances of the same Disease; for I am sure it would be very difficult to find upon what *mathematical Propositions*, their common Prescriptions, more than other Gentlemen's, are founded. To instance in some of these from Dr. *Pitcairn* \*.

‘ A Disease is the circulatory Motion of  
‘ the Blood, too much increased or diminished;  
‘ a Fever the Motion of the same increased;  
‘ a Symptom is something in a living Body,  
‘ contrary to Health or the Actions  
‘ of a living Body, or some Part thereof im-

\* See his Summary of the Elements of Physick.



‘ pair’d; Life is the Circulation of the Blood,  
‘ thrown out of the Heart through the Ar-  
‘ teries, and returning again by the Veins;  
‘ Health is a healthful Life, or a free Circu-  
‘ lation of the Blood, without Pain, which  
‘ is injur’d by the Encrease or Diminution of  
‘ any Secretion; all Diseases of the Fluids  
‘ consist either in a Change of their Qualities,  
‘ or a Change of the Velocity in their Mo-  
‘ tions; the Qualities of Fluids may be  
‘ changed, and their Secretions either aug-  
‘ mented or diminish’d; by the Changes of  
‘ Matter and Motion, are produced all the  
‘ Diseases of a living Body, and their Cure  
‘ must be by adjusting the Changes of Matter  
‘ and Motion; these Changes, whether for  
‘ the better or the worse, are perform’d by  
‘ mechanic Laws; the Cure of every Disease,  
‘ whether of the Solids or Fluids, are to be  
‘ effected only by the said Laws; all the Se-  
‘ cretions in a living Body, are performed on-  
‘ ly by the Laws of Mechanism, and pro-  
‘ moted and restor’d by the same Laws.  
‘ From the Suppression of any Secretion, must  
‘ necessarily arise a Disease; all the Parts of  
‘ Fluids are in an Equilibrium; the Orifices

‘ of



‘ of all the secretory Organs are alike ; all  
‘ the Pores of the Glands are circular ; there  
‘ is no Difference but in their greater or lesser  
‘ Capacities ; in two Places equally distant  
‘ from the Heart, if the secreting Vessels are  
‘ equal in Number, the Quantity secreted in  
‘ the first Place, ought to be to the Quantity  
‘ secreted in the second, as the Orifices of the  
‘ first are to those of the second ; if the Ori-  
‘ fices of the Vessels are equal, the Quantity  
‘ secret’d in the first Place, ought to be to  
‘ that in the second, as the Number of the  
‘ secreting Vessels in the first Place, is to the  
‘ Number of the secreting Vessels in the se-  
‘ cond ; a Fluid whose Parts are all of the  
‘ same Gravity, will equally pass through e-  
‘ qual Orifices, and *e contra*. Where the  
‘ Parts are not of equal Gravity, the heavier  
‘ will descend to the Center, and the Mo-  
‘ tion of the flowing Parts will be increas’d  
‘ or diminish’d in a given Proportion to their  
‘ Gravity ; the heavier Parts of the Blood are  
‘ thrown upon Places where there is the least  
‘ Motion ; these are often lodg’d upon the  
‘ Joints, whence the Gout ; upon the Gall-  
‘ Bladder, whence the Gall-Stones ; upon the



‘ Renal Ducts, hence Gravel in the Kidneys:  
 ‘ If the Particles of the Blood have Inclina-  
 ‘ tions in respect to some centripetal, and to  
 ‘ others centrifugal, then a Separation of its  
 ‘ Parts will more easily happen after Blood-  
 ‘ letting, when it is left in the Vessels less  
 ‘ crouded.’

These, with an hundred others, as little to  
 the Purpose of a practical Physician, are set  
 down for wonderful Improvements, but con-  
 tain, I think, very little Instruction, I mean  
 particularly as to the Cure of the several  
 Species of Fevers. The Produce of the  
*Gout* and *Stone*, especially from the *heavy*  
 Parts of the Blood, seems an Explanation  
 scarce worthy the excellent Author, or  
 reconcileable to *mechanic* Laws; since there  
 must doubtless concur more than simple Gra-  
 vity therein, to the forming these Diseases,  
 except we could prove those who have the  
*heaviest Blood*, were most afflicted therewith;  
 and that these *heavy* Parts tend naturally or  
*mechanically* to the *Joints*, the *Gall-Bladder*  
 and *Kidneys*, which I think will be found a  
 Difficulty.

To these *Axioms* of Dr. *Pitcairn*, I shall



here annex a short Account of some *Propositions* from the notable *Bellini*, relating only to our subject: These two being the more remarkable in this Way, whence you may form the better Judgment what Advantage is to be gain'd thereby, as to Practice; and whether their Followers have much regard to the same, in their *Formulae* of medicinal Prescription.

‘ There is no Fever without some Fault in the Blood, nor can that be faulty without some Way affecting its Motion, Quantity or Quality, with each of which the Pulse must be also some Way vitiated.

‘ Since then every Fever is conjoin'd with a faulty Pulse, and this with some Fault in the Blood, it will be necessary to enquire after the several Ways the Blood may be disorder'd; and whether each of these can affect the Pulse: For having found that each, or all these Ways of rendering the Blood faulty, are necessarily conjoin'd with some Disorder in the Pulse, and the several Affections attending each particular Fever; we need not scruple to affirm that this or the other Fever is this or that particular Fault in the Blood, arising from this or the



‘ other Cause: And hence collecting all the  
‘ several Faults under one common Genus,  
‘ may we be able in general to define what  
‘ a Fever truly is.

‘ From a Fault then in the Blood’s Motion  
‘ the Pulse will be faulty, as also from its  
‘ Quantity, either encreas’d or diminish’d.  
‘ The chief Faults in its Quality are two,  
‘ viz. its Principles somehow vitiated, or its  
‘ Operations impeded: An Instance of the  
‘ one we have when the Cohesion of its con-  
‘ stituent Parts is increased, whereby likewise  
‘ the Pulse will be disorder’d, as from the  
‘ same much lessen’d; and from this faulty  
‘ Cohesion, possibly, tho’ not necessarily, may  
‘ arise a Vice in the Pulse.

‘ The Cause inhibiting the usual Opera-  
‘ tions of this Fluid, is extrinsic to the Blood  
‘ itself, arising from some foreign or adventi-  
‘ tious Particles, and is always attended with  
‘ a Fault in the Pulse, from Admixture of  
‘ the same.

‘ There is therefore no Fever without some  
‘ Fault in the Blood, its Motion, Quantity  
‘ or Quality, some one or all of these.’



Next of his *Definitions* of *Fevers*, both general and particular.

1. ‘ Every Fever is either *continual* or *intermitting*; the *continual* being either simply so, or *periodic*, or *erratic*. The *Intermitting* is only *periodic*, or *erratic*; this being the necessary Division of them, and containing the several Species.

2. ‘ A true *Ephemera* is a simple continual of twenty four Hours, finishing its Circuit sometimes in fewer, sometimes more.

3. ‘ The imputrid or *simple Synochus*, call’d *Inflativa*, consists also of one simple Fit, at the close whereof the Sick is no longer afflicted.

4. ‘ The *putrid* or *continent*, differs only from the former in its greater Heat, and more intense Affections, having one round also, when the Patient grows well.

5. ‘ The *Causus* or *Ardent*, that returns not by Period, differs also from the two preceding, in the severer Burning or Heat, with extreme Thirst accompanying.

6. ‘ The *Hætic* is a Fever with uniform Heat and Pulse, except, that after Meals, both of them are increased.

7. ‘ As



7. ' As to the *Malign* or *Pestilent*, all these  
 ' are either *primary* and *essential*, or *secondary*  
 ' and *symptomatical*, being for the most Part  
 ' of the continual Kind, altho' they may both  
 ' happen to intermit, especially when depend-  
 ' ing upon Causes 'thereunto disposing; of  
 ' which Sort are the *Phlegmonodes*, *Erysipela-*  
 ' *todes*, *Typhodes*, *Lenta*, *Morbillosa*, *Variolosa*.

8. ' The continued *periodical Quotidian*  
 ' is a Fault in the Quality of the same Fluid  
 ' the Blood, render'd less *fluxile*, by Means of  
 ' a certain Lensor or Viscidity therein, which  
 ' being always the same, returns every Day,  
 ' some terrene or earthy Parts sticking in the  
 ' capillary Arteries, whilst the thinner pass on  
 ' or perspire; this *Lentour* is supply'd from  
 ' the Bowels, or some particular part of the  
 ' Body; and constantly thus daily impacted  
 ' in the Vessels, gives rise to this particular *In-*  
 ' *termittent* or *Quotidian* Fever.

9. ' The *continued periodic Tertian* is like-  
 ' wise a Fault in the Quality of the Blood,  
 ' being render'd less *Fluxile*, through the  
 ' Means of a certain *Lentour*, &c.

10. ' The *continued periodic Quartan* is al-  
 ' so a Fault in the Quality of the same Fluid,

' not



‘ not *Fluxile*, but by Means of a certain *Lentour*, &c.

11. ‘ The *malignant*, in like Manner, is  
‘ from a faulty Quality owing to a peculiar  
‘ *Lentour*, moving up and down therein, and  
‘ therewith fermenting, when sometimes one,  
‘ at others, some other Parts are obstructed.

12. ‘ The *Plague* itself is a vitiated Quali-  
‘ ty also in the same Fluid, where, by a cer-  
‘ tain *Lentour* moving about, fermenting and  
‘ perspirable, some subtil Particles are enabled  
‘ to penetrate the Bodies of others, and con-  
‘ taminate the Blood of these in like Manner  
‘ as those they perspire from, so that many  
‘ are thereby destroy’d.

13. ‘ *Symptomatic Fevers* are of the same  
‘ Origin, and Production of the foregoing;  
‘ each depending on a viscid or lentous Hu-  
‘ mour in the Blood, or as in the Case of  
‘ *Worms*, from the Motion thereof vitiated:  
‘ That is, as oft as the *Stimulus* thereby oc-  
‘ casioned, is able to produce the Symptoms  
‘ concomitant to such Fever: Upon which  
‘ Account these *secondary* Fevers are reckon’d  
‘ under the same *Genus* with the foregoing,  
‘ already described, having nothing to dif-  
‘ ference



ference them, at least essentially therefrom.

14. ' The Fever of the *Small Pox* is a  
' Fault also in the Quality of the Blood,  
' which being dissolved, becomes partly *Len-*  
' *tous*, and partly *Liquid*, whence ariseth the  
' whole series of Affections above declared ;  
' and from whence is constituted this particu-  
' lar Fever, going under the Appellation of  
' *Variolous*.

' Now since there is no Fever given, be-  
' sides these already described, or if there was,  
' or could be given, but what may be reduced  
' thereto, we infer that each of them severally,  
' is a Fault in the Blood, its Motion, Quan-  
' tity, or Quality ; or that a Fever itself is  
' nothing else but this very Fault offending  
' one of these three Ways, or accordingly as  
' few or more of them are concern'd therein,  
' some, or all.' Q. E. D.

Lastly, a Word or two of his antecedent  
Causes of these Fevers.

' Whatever goes before every true *Ephe-*  
' *mera*, will some way vitiate the Motion of  
' the Blood ; of which kind particularly are  
' Passions of the Mind, preternatural Dis-  
' charges, too great or violent Exercise, Hun-

ger



‘ ger and Thirst, a hot Air, Perspiration  
 ‘ check’d by cold; so that this Fever is only  
 ‘ a Fault in the Motion, Quantity or Quality  
 ‘ of the Blood, one or all, of one Day’s conti-  
 ‘ nuance, arising from the recited Occasions,  
 ‘ as an *Ephemera* of more days than one is  
 ‘ the same Fault, protracted only to a longer  
 ‘ Space.

‘ Again, whatever precedes the simple Sy-  
 ‘ nochus or *continent* Fever, may vitiate the  
 ‘ Motion, Quantity or Quality of the Blood;  
 ‘ and from such Vice will necessarily ensue all  
 ‘ which is conjoin’d to either, or follows af-  
 ‘ ter; hence then the simple *Synochus* is a  
 ‘ Fault in the Motion, Quantity or Quality  
 ‘ of the Blood, either, or all, arising from  
 ‘ the same Causes, as the legitimate *Ephemera*,  
 ‘ but somewhat more powerful, and of longer  
 ‘ Continuance; whilst the *Continent* is also  
 ‘ the same Vice, but has yet a more power-  
 ‘ ful Cause than the simple *Synochus*, to bring  
 ‘ the same into act.

‘ Farther, whatever goes before the *Causus*,  
 ‘ or burning Fever, vitiates also the Motion,  
 ‘ Quantity or Quality of the same Fluid;  
 ‘ and all whatever is conjoin’d, or succeeds  
 ‘ thereto,



' thereto, ariseth from the like Causes ; so  
 ' that it is plain, that the *Causus* having no  
 ' Periods, may be refer'd to an *Ephamera* of  
 ' more Days, and is the most intense of all  
 ' the rest ; arising however from the same  
 ' Causes, acting in a more intense Degree,  
 ' produceable also by as many Ways as the  
 ' rest.

' To conclude, whatever so vitiates the  
 ' Qualities of the Blood, as to kindle a greater  
 ' Heat and Dryness than is natural, and de-  
 ' rive the same into the Habit of the Body,  
 ' will by its continuance bring on a *hectic* Fe-  
 ' ver, which said Fever has its Residence in  
 ' the said Habit, and is no other than a pre-  
 ' ternatural Heat and Dryness of the Blood,  
 ' affecting the same, without Change or Al-  
 ' teration, having no other Cause to constitute  
 ' its Essence than the foregoing \*.'

I have given you this tedious Account of  
*Definitions* and *Propositions* of these two great  
 Men: The last of which has been accounted  
 as an *Oracle* by some, and wonderfully e-  
 steem'd for having reduced *Fevers* by *mathe-*

\* Vid. Bellini Propos. de Feb.



*matical Problems*, to a certain Rule: That you might be enabled, if unacquainted with their Writings, to make a Judgment, what real Advantage, (as I have observed of the foregoing *Definitions*) is to be gather'd, or which way the Cure may be promoted thereby.

I must own that there are several also of these latter, which seem beneath so learned an Author to have obtruded upon us for Demonstration, unless we could allow of many Things, which are *gratis dicta*, for such.

There is indeed much Stir about a *Lentour* in the Blood, sometimes more, sometimes less, and at others, not at all *fluxile*, in which is placed its only Fault in Quality; but how or which Way the same gives Rise to the several Species of Fevers, or can produce the divers *Phænomena* of each, is so far from being proved (at least in my Opinion) that it cannot so much as be imagin'd upon such Foundation: Yet this, with *Quantity* and *Motion* increased or diminish'd, are the *Triumvirate*, it should seem, that preside in all *Fevers*.

'Tis granted that this *Lentour* may be thicker or thinner, moveable or fix'd: But why,  
in



in one, it produces *Coma Somnolentum*, in another *Vigil*; in one *Languor* and *Deliquium*, in another *Fury* and *Orgasm*, with increased Strength; in one a constipated Belly, in another violent Purging; in one a white and a moist Tongue, in another a dry, black and scabrous; Why, in one, there is thrown forth a Pustulary, whether *miliary*, or *variolous* Eruption; in another the *Rubeolæ*, *Petechiæ*, or the simple *rasby* Efflorescence, either *Morbillous*, *Erysipelatous* or *Scarlatine*; How these, I say, with an hundred others, specifically divers Appearances, in Fevers, are reconcileable to the more or less Fluxility of a simple *Lentour*, is hard to conceive; nor can I persuade myself, but that the true and real Cause of most of these *Phænomena*, as well as the *modus* of Nature, in preparing and fitting the Matter of the Disease, to be thrown forth, will ever be hidden from us. We may, 'tis true, perplex ourselves, to find out her Way of working, but how often does she disappoint us, in moving a direct contrary one, to that which Art was intending to impose upon her? How often does she ease herself by Sweats, which we were never able to force



out: How oft by Vomit or by Stools? How frequently by Spit, or by some *Abscess* unexpected, unforeseen? In a Word, how common is it for her to extricate herself, or get disintangled from a Weight, we thought was unfurmountable; as at other Times, we see her forced to lie down, and vanquish'd, when we believ'd she had got the Victory, and that the Danger was now past.

But lest I should seem trifling also and tiresome, by prosecuting these Remarks, I must only desire you, after all that I have here quoted, to observe whether the *Praxis* of these Gentlemen, some of them at least, is taken from their *Theorems*; or in what it differs from others? If so, whether their Success in curing Fevers by *Algebra*, *Geometry*, *Arithmetic*, &c. has exceeded that plain Method, which was gather'd by our honest *Sydenham*, from *Observation* only, without Regard to these? I dare say, if you look over the *Materia Medica* of Dr. *Pitcairn*, Master *Boerhaave*, or any other who have made the same Publick; you will find none better suited to answer the medical Intention, than those of that very heedful Physician, who

F

had



had nothing more in View than how to relieve oppressed Nature, in such way as she seemed of herself to direct, by some certain, but faint Overtures, and such means as a settled Practice, and multiply'd *Experience*, had warranted for the safest : By quitting whereof, and running upon *physico-mechanical Problems*, laid down in the way abovemention'd, I know many dangerous Mistakes are daily committed, by such as have not duly weigh'd them, nor rightly understood them.

Thus one tells us, that in every Fever the Blood must be drawn off in a large Quantity; the following are his own Words \*.

‘The first Thing incumbent upon a Physician  
 ‘in Fevers, is to let out a considerable Quantity of Blood, in order to remove the Cause  
 ‘of the same, which is founded (*for you see*  
 ‘*he cites his Voucher*) on the fifth and sixth  
 ‘Proposition of *Bellini de Feb.* in these Words.  
*Vena in omni morbo est secanda, in quo minu-*  
*enda quantitas, aut augenda velocitas, aut refri-*  
*gerandum, aut humectandum, aut aliquid adhærens*  
*vasis dimovendum, aut abripiendum;* he might

\* See Preface to the New Theory of Fevers.



have added surely, *aut aliud aliquid agendum.*

‘ A second tells us, that the Blood being  
‘ at these times too much rarify’d, whatever  
‘ takes off the Rarefaction, (and nothing can  
‘ do this so speedily as Bleeding) cures the  
‘ Fever of what kind soever.

‘ But a third says, the Blood divides too  
‘ fast at such Times, by which its *electrical*  
‘ *Attraction* is weakned; and therefore Bleed-  
‘ ing, as destroying the Medium between the  
‘ *centripetal* and the *centrifugal* Parts, must be  
‘ dreaded above all Things, as every Thing that  
‘ raises or depresses them above or beneath  
‘ the *Balance*.

‘ A fourth, on the other Side, again cries  
‘ out, that the Blood in every Fever is apt  
‘ to run into *Cohesion*, and that these viscid  
‘ Parts are best removed by *Phlebotomy* or *Ve-*  
‘ *næsection*; after which you must get ac-  
‘ quainted with Remedies to break the re-  
‘ maining *Lentor*, dig down the Obstruction  
‘ of the Glands, and drive forwards the Hu-  
‘ mours impacted in the smaller Canals, this  
‘ being the true *mechanic* Cure of Fevers.’

To this purpose, one of them has proposed  
*Steel Medicines*, another *Mercurial*, as the



most powerful glandular Detergents; but then wisely considering the Heat, and Disturbance given thereby to the Blood, by which the Fever, at least during some time, would be encreased, he dissuades the Experiment: Whilst another has proposed a *mercurial Salivation* in the worst kind of Fevers; but for the like Reason, *viz.* lest the Patient should die in the way to his Cure, or before the Salivation could be raised, as wisely forbids the same.

So strangely are Men of strong Judgment and clear Reasoning, oftentimes bewilder, especially when their Heads are turn'd this Way, or when they forsake *Nature*, for the sake of *mechanic Principles* in Physick, or *mathematical Problems*; which however contain little more than an *Hypothesis*, and that often of dangerous Consequence, terminating in useless *Theory* or Speculation: And surely, till we come to change this kind of *studying Physick*, as it is called, for the *study of Diseases*, and their natural Cure, we shall study to little Purpose: For the more we deflect from *Nature* and her Operations, laying aside *Observation*, and *Experience*, or building upon  
*Theorems*



*Theorems* of any kind, the more likely shall we be to destroy our Patients.

Dr. Sydenham, speaking of those *inflammatory* Fevers he calls *Intercurrents*, so far, saith he, ‘ as we can understand by weighing duly their Symptoms, and the Appearances belonging to them, and the Method of their Cure, they owe their Original to some peculiar Inflammation of the Blood, that is proper to each : and I count the chief business of Cure consists in cooling and qualifying the Commotion thereof. Upon which account I wholly endeavour to eject the morbidick Matter by such a Method as I find agreeable to the *Genius* of the Fever, and prov’d by *Experience*, to cure the same. For he only hits the Mark who certainly foresees by what Way the febrile Matter is to be excluded, as by *Bleeding, Sweating, Purging*, or other Methods.’ Which, as above, is better learned from *Experience* than any *physical Axioms*.

Had you but seen the Library of *Alcalinus*, you might have known his Opinion, that not many Books but much Business must compleat a Physician : For truly, it was a settled



Maxim with him, that the more of these a young Physician looks over, unless he is very careful in their Choice, the more sick People he will be sure to kill; and that a good Play or a Romance was better than any of them: But I can by no Means come up to this very supine and indolent Man's Thoughts herein; for doubtless without some Pains taken this way, or consulting those practical Writers who have gone before us, a young Man's Judgment can never be well grounded: It must be unstable, nor can he ever satisfy himself, or others, in what he is going about, or what he has to encounter, till he has made a sufficient number of Observations himself, Nature so often shifting from one Appearance to another: The Difficulty is in your choice of Guides; for 'tis our great Misfortune, that those Gentlemen who are able to do most this way, are for the most part silent; and the writing Task falls chiefly to the *Theorists*, who being big with some *Hypothesis*, are impatient till they are delivered thereof, or to the *mercenary* Scribes, who without other regard write for their own and their Bookseller's Profit, rather than the Reader's: How else surely  
has



has it fallen out, that for almost a Century past, *France* can boast but of one *Riverius*, and *England* but of one *Sydenham*? I mean as Compilers of a general Body of Physick, truly serviceable or useful to the practical Physician; by no means derogating at the same Time from many others, who have learnedly and solidly discuss some particular Parts thereof, with which it is convenient you should be acquainted. For though a fortunate *Genius*, with an uncommon Sagacity in the *medical Prediction*, without trouble of reading Books, procur'd to the Person we but now mentioned, great Wealth as well as Reputation; yet every one, you know, is not born to such Fortune, nor is it half so material whether you die a *rich* one, as an *honest* understanding Physician, and a *good Man*.

I hope now, from what I have here alledg'd, to take off any Gentleman's Resentment against me, as an Enemy to Learning, in which, how meanly soever qualify'd myself, no Man has a greater Value for the same, even for such *mathematical Enquiries* as will enable us to reason rightly, or upon certain Principles, about such physical Ap-



pearances in human Bodies, as the Subject of our Enquiry is truly capable of, but which this of *Fevers*, I fear is not, nor ever will, as to many of the *Phænomena* occurring daily to us in our Practice.

I can believe as much of the *Machinery* as any of them; that the Bodies of all Animals, together with our own, tho' not produced at first by *Mechanism*, are form'd according to *mechanic Rules*, subject to such Laws, and that all the Disorders happening therein, as well to the *Solid* as the *Fluid* Parts thereof, are to be rectify'd thereby, if we knew how. And when I have seen one of these notable *Mechanicians* make me but a *Fly*, or put Life into any other *Automaton*, how despicable soever, I shall own, when the same is sick, or which is all one, disorder'd in any of its *Machinulæ*, or other the hidden, and to me, imperceptible Springs thereof, (whether the same has happen'd to the *Solids contracted or relaxed above or beneath the Balance or Æquilibrium* appointed them, or by Means of the *Fluids running into Cohesion, and stopping at some Angle of Incidence*) that he will presently discover the Defect, and rectify it, with as much ease



as the Watchmaker does those in a Piece of his own Work; but till then, I dare say you will pardon me, whatever they may do, if I suspend my Thoughts, or deliver them in this Way, that the supreme Being who presided not only in the *cosmical Mechanism*, but at the forming all others therein, whether animate or inanimate, is only able to reduce Medicine in all its Parts, under these Principles: He who is acquainted with the *Primordia* or first Seeds of Diseases, before they come into act and produce Symptoms, by which only we can know them, and then too often but by guess: He, I say, that by an all-seeing Eye, and infinite Understanding, can at once survey the whole Machine, and view how his Handmaid *Nature* is at work, is the only *mathematical Physician*; and there is no Part of the Movement, whether relating to the *Hydraulic, Pneumatic*, or any other the *arithmetical* or *geometrical* Properties thereof, but he can instantly see through, and no one else.

Whether it derives much Honour to some, I will not say, who, tho' their Writings are full of these Terms, *Mechanism, mechanic Laws, settled and established Course* of *Nature*, and  
the



the like Phrases; yet, as the honourable Mr. Boyle \* observes, whoever takes Notice of the Mode of their Expression, (at least many of them) would be induced to think, that the *Natura naturata*, and not the *Naturans*, took up the chief Place in their Thoughts, or that these Laws were establish'd somehow or other, without a *Lawgiver* to appoint or direct them; so that there is less wonder, that to the Disgrace of both Professions, the *tres Mathematici* have been reckon'd with the *tres Medici*, as to their Principles of another Kind: But this being foreign to us at this Time, may seem a Deviation; and yet I cannot leave it without this farther Mark of Admiration, that *Physicians*, who of all People upon the Earth, by the anatomical Inspection of human Bodies where they see each Organ so stupendously framed, and so admirably fitted for their several Uses, have the greatest Reason to be convinc'd of the infinite Wisdom of the great Δημιουργός, as the *Mathematician* from his Knowledge of the exact Symmetry and geometrical Proportion thereof, together

\* Enquiry into the vulgarly received Notion of Nature.



with that of the celestial Bodies, falling under his Inspection, of his infinite Power, should yet be some of them the greatest *Scepticks*, to call them by no harsher Names: But so it happens, through the Force of Custom, or Prevalency of Habit, that like other loose principled Persons, the one sort overlook the Supreme Architect, and terminate all in what they call *Nature*, simple *Nature*, whilst the other are so absorpt as it were in Matter, that they can have no Idea of *Incorporeity*, *Immateriality*, or *Immortality*: These being *metaphysical*, and belonging to another Science, are out of their *Creed*, as not admitting that kind of Certainty they pretend to; altho' many Properties, even of Bodies themselves, such, particularly, as the common Cement or *Vinculum*, which holds their Parts together, is as hard to be come at, as the Knowledge of *angelic Beings*: So that the neglect of these important Truths cannot surely proceed so much from the want of Thought, (since none think more than Mathematicians) as that of due Reflection; for doubtless it cannot be overmuch Wisdom that has made them thus mad, nor can they be so conceited



as to believe there is no other than their own ; tho' I know it will be hard to persuade them that theirs, like the rest of the World's, is *Foolishness* : But lest by some of these, I should be thought preaching, which I own belongs not to my Province, a Mode of Discourse they are less accustomed to, 'tis time, perhaps, *ut manum de his, ex Tabula*. So that resuming our Subject, I will now endeavour to set this Affair in a better Light, and doubt not to shew, that after much Harangue on the Necessity and Usefulness of this Kind of Knowledge, to a practical Physician, they tacitly give up the Argument themselves, in owning, after much *Ambages* of Words, that it must be *Experience* which can enable us not only to foretel the Issue of the Disease, but the Effect also of the Remedy administer'd ; and that where we cannot have sufficient *Data* to go upon, all Argumentation of this Kind is but Amusement ; which we shall endeavour to make good from a late Proeme of a teaching *Phylomath* to his *Principles of Physick* \*, running thus,

\* See *Morgan's* Introduction to his Philosophic Principles of Physick.



‘ Since the Animal Body is a *Machine*, and  
‘ *Diseases* nothing else but its particular Ir-  
‘ regularities, Defects and Disorders, a blind  
‘ Man might as well pretend to regulate a  
‘ Piece of Clock-Work, or a deaf Man to  
‘ tune an Organ, as one ignorant of *Mathema-*  
‘ *tics*, and *Mechanics*, to cure Diseases, with-  
‘ out understanding the natural Organisation,  
‘ Structure and Operations of the *Machine*,  
‘ which he undertakes to regulate: And as  
‘ there are two Things necessary to constitute a  
‘ good Philosopher, namely, a just Acquain-  
‘ tance with the *Phænomena* of Nature,  
‘ grounded upon accurate Observations and  
‘ Experiments, and a competent Skill in *A-*  
‘ *rithmetic*, *Geometry* and *Algebra*, to enable  
‘ him to reduce the Forces and Operations  
‘ of Bodies to a *Calculus*, in order to find out  
‘ the Adequation and Proportion between the  
‘ natural Causes and their Effects; so the like  
‘ *mathematical* and *mechanical* Reasoning,  
‘ join’d with the *History of Diseases*, their  
‘ Symptoms and Cure, drawn from *Experi-*  
‘ *ence*, are both necessary in *Physicians*, and  
‘ one without the other is altogether insuffi-  
‘ cient.

‘ ’Tis



‘ ’Tis a little surprizing therefore, to hear  
‘ some Gentlemen of the Faculty, declaim  
‘ against *mathematical* and *mechanical Theo-*  
‘ *rems, in re Medica*, since this is in effect, to  
‘ maintain that Medicine is grounded upon  
‘ no Principle at all; that if Diseases are  
‘ cur’d, it must be by chance; and that con-  
‘ sequently there is no Difference but that of  
‘ a *Diploma*, between a *Physician* and a *Quack*,  
‘ (*who, by the Way, is seldom in want of that,*  
‘ *even from some of our own Universities.*)  
‘ ’Tis evident to all Experience, that new  
‘ Species of Diseases, or new Symptoms, at-  
‘ tending the same Diseases, daily arise, and  
‘ offer themselves in the Practice of every  
‘ Physician, in which the History of Diseases  
‘ can be of little Use (*and I am sure mathema-*  
‘ *tical Problems of much less*) and in this Case,  
‘ where Experience fails, as it will in one  
‘ thousand Instances, every one, how much  
‘ soever he may declaim against *Theories*, re-  
‘ curs to his own, such as it is, true or false,  
‘ right or wrong; and accordingly attempts  
‘ the Cure, at least for the Experiment’s Sake,  
‘ and the Patient often pays dear (*tho’ per-*  
‘ *haps he may come off cheaper than when tied*  
‘ to



‘ to a Proposition, *a la mode Matheſis*) for  
 ‘ what the Doctor decries, only becauſe he  
 ‘ does not underſtand: So that a moderate  
 ‘ Skill in this Science, and a tolerable Acquain-  
 ‘ tance with the *mechanical Powers*, begin to  
 ‘ be reckon’d a neceſſary Qualification (*if not*  
 ‘ *for a Teacher*) for one who would make a  
 ‘ Figure (*do you mind him*) in his Profeſſion,  
 ‘ and ’tis to be hop’d, that this, in time, will  
 ‘ come to be allow’d the true *Characteristic* of  
 ‘ a reaſonable Phyſician, (i. e. *a talking rather*  
 ‘ *than a practical one*) as diſtinguiſh’d from  
 ‘ an *Empiric*; and indeed, ſince it is the  
 ‘ Buſineſs of the former to aſſiſt Nature in  
 ‘ her Operations under the moſt nice and dif-  
 ‘ ficult Circumſtances, it is impoſſible he  
 ‘ ſhould acquit himſelf herein with Satisfac-  
 ‘ tion and Succeſs, or act otherwiſe than at  
 ‘ blind random, if he has not the Skill of  
 ‘ applying, as occaſion ſerves, *mathematical*  
 ‘ *Quantities* and Proportions, to the *mechani-*  
 ‘ *cal Powers*, upon which all the Laws of  
 ‘ the animal Oeconomy, with the Effects and  
 ‘ Conſequents of Motion, in the mutual  
 ‘ Action and Re-action of Bodies, entirely  
 ‘ depend.’

Be-



Before I proceed farther with this blustering Gentleman, and his bold Advances, give me leave to make some short and modest Remarks upon what he has deliver'd.

We have already own'd the Body of Man to be form'd *mechanically*, or in our Author's Words, to be an *Animal Machine*: And we think it necessary that every one, who sets about the rectifying its Disorders, ought to be well acquainted with the Structure thereof, which is gain'd only by anatomical Dissection, or a just Inspection of its Parts: But since the nicest Scrutiny we can make, will discover nothing to us of the Seeds of Diseases, nor of Nature's Process in encountering with the same, unless from what is past; so a diligent Observation thereof, made by a sound Judgment, together with a suitable Experience of what has best succeeded at such Times, or under the like Appearance, we believe the most necessary to a practical Physician; being by the one, enabled to form Diagnostic Signs, by the other the Prognostic, as well as Cure: But for any Man to tell us, that unless we can apply *mathematical Quantities* and *Proportions*, to *mechanic Powers*,  
and



and reduce the Forces and Operations of Bodies to an exact *Calculus*, in order to find out the *Adequation* and Proportion between *natural Causes* and their Effects (which is the sole Privilege of him that made them) we cannot acquit ourselves with Success, but must act at random, is both disingenious and disingenuous.

'Tis true, he owns, that to these may be added the *History of Diseases*, their Symptoms and Cure, drawn from *Experience*, not from *Arithmetic*, *Geometry* or *Algebra*, which we deny to be those necessary Qualifications he pretends to, as to the Cure of all Diseases.

If to this it should be answer'd, what Principles must we go upon, or how must we distinguish a *Physician* from a meer *Empiric*? I reply, we have the Principles of Reason, which when confirm'd by *Observation* and *Experience*, are all we can pretend to, or ever shall obtain, especially in the Cure of *Fevers*; all others we must renounce, and so must he, notwithstanding his Attainments in these Sciences: But if he thinks to acquit himself with the greater Reputation, he may, (if he can) persuade the Sick that he was recover'd,



by adjusting *mathematical Quantities* to *mechanic Powers*; and it is by this Principle of right Reasoning from *Observation* and *Experience*, back'd with a true Knowledge of the Structure of the Parts, not from any *arithmetical Calculi*, of which the *Phænomena* in Fevers are entirely incapable, that we distinguish a *Physician* from a *Quack*, who being ignorant of the Nature and Seat of the Disease, prescribes his Medicine, as our Author says, at random.

But tracing this *Phylomath* a little farther \*, we shall presently see, if he comes not to an Acknowledgment, that ours are the soundest *Principles*, after all this babble of *Quantities* and *Numbers*, at least the safest in which we can confide.

'Tis plain, saith he, that the Names of Diseases, under their common Acceptation, are affixt, not to their real internal Constitution, or morbid State itself, but to the complication of Symptoms, or outward sensible Appearances: which complication of Symptoms join'd together under a common Name, constitutes the *complex Idea* or

\* Idem ibidem.



‘ nominal Effence of this, or the other particular Sort or Species of Diseases.

‘ Thus when the biliary Ducts or Pipes, which convey the *Bile* from the *Liver* to the *Intestines* are obstructed, the consequent Symptoms, such as the *Yellowness*, the *hard white Stools*, the *Costiveness*, the *thick turbid Urine*, with the other Symptoms usually attending the Disease, being joined together, under a common Name and complex Idea, is called the *Jaundice*; which Disease would pass under the same Name, and admit of the same Cure, tho’ the Cause of it, or the Obstruction of the biliary Pipes, should be absolutely unknown, or never once thought of: but then ’tis plain in this Case, that the Obstruction of the *Bile* is strictly and properly the Disease; and the Complication of Symptoms to which the Name is affixed in common Acceptation, are only the Effects and Consequents of it. And after the same Manner, any original proper Disease, as it respects the internal State and Disposition of the Organs and Fluids, may be consider’d as the Cause of the consequent Symptoms: And this Method of reasoning from



' the Effects to the Cause, that is from the  
 ' Symptoms given to find out the internal  
 ' real and proper Disease, is of such Confe-  
 ' quence, that a Physician can make no ra-  
 ' tional Judgment without it. 'Tis this Ca-  
 ' pacity and Skill of Reasoning from the  
 ' Symptom to the internal, Original and pro-  
 ' per Disease, that distinguishes a *Physician*  
 ' from a *Quack* or ignorant Pretender; and  
 ' that renders his Judgment preferable to that  
 ' of a *Nurse*, a *Midwife*, or a *Country Farmer*,  
 ' who might chance by *Recipe's* to cure a  
 ' *Jaundice*, or any other Disease, without  
 ' knowing what it is, or from whence its  
 ' Symptoms arise.

' I have instanced here in a *Jaundice*, be-  
 ' ing a popular Disease, and commonly  
 ' known; but what has been said, may be  
 ' equally apply'd to a *Fever*, a *Dropfy*, or any  
 ' other Disease. 'Tis therefore a right Know-  
 ' ledge of the *animal Machine*, and a just  
 ' reasoning thereupon from Effects to their  
 ' Causes, from the outward sensible Appear-  
 ' ances to their internal and more remote O-  
 ' riginals, Sources or Fountains, that can a-  
 ' lone qualify a Physician to make such



‘ Judgment of Diseases, as must secure his  
‘ Success, and justify his Practice.’

But, pray Sir, after all this Elocution, or  
Fencing with fine Words, What is this to  
the adjusting *mathematic Quantities* to *mecha-  
nic Powers*? Or what that he asserts herein,  
which we deny! I have already told you,  
that a Physician is throughly to acquaint him-  
self with the Structure of the Body, as well  
in the State of Sickness, as of Health; that  
he is to be sedulous in observing how the Parts  
are alter’d by such Sickness; what Symptoms  
attend upon such and such Diseases, as well  
as such particular Parts diseased, with their  
usual Consequences; by which, when the  
like shall again happen, he may be prepar’d  
as well from *Diagnostic Signs* as *Prognostic*,  
to pronounce what the Disease is, and how  
like to determine. Lastly, I have told you,  
that from *Experience* of the Success ensuing  
this or the other Method, under the like Ap-  
pearances, he is farther enabled to prosecute  
the Cure.

To instance in the same Distemper, here  
given as a Specimen, by our Author, the  
*Faundice*, and that in our own Way: Is it



not by anatomical Dissection, and Inspection of Bodies deceas'd by Means of this Distemper, that we discover the Liver oftentimes *Scirrhus*, especially when the same was confirm'd, by which the bilious Juice, not being fecerned from its glandules, regurgitates into the Blood, and in its Circuit tinges the whole Surface of the Body, more remarkably conspicuous on the *Tunica adnata* or white of the Eye; or being separated, yet stopt by some crystalised Salts in its excretory Duets; particularly that which empties itself into the *Duodenum*, by which the same Effect is brought about, with excruciating Pains attending the said Obstruction. Do we not hence observe, that the *intestinal Fæces*, no longer ting'd thereby, contrary to their usual Colour, appear *Chylous*, or of a whitish Aspect; whilst the Urine of these People, now saturated beyond Measure with the bilious Salts, becomes *Lixivial*, loaden often with Contents of the same Complection? Do we not farther observe the Sick thus labouring, to complain of *Faintness*, *Choleric Vomiting*s, *Listlessness* to *Action*, *Itching all about his Body*? And lastly, do we not daily see the  
same



same complicate with a Dropsy, when by Reason of rotten *Viscera*, discover'd also by Dissection, the Case is fatal? All this, I say, we have from *Observation* of morbid Bodies, which afford us Signs both *Diagnostic* and *Prognostic* of the Disease in general. And is it not now from *Experience* only that we have found some particular Remedies, whether Simple or Compound, most prevalent in removing these Obstructions, in order to the Cure, when the Distemper is not too many for us: Such I mean as the *Rad. Rhei. Curcumæ. Rub. Tinct. Chelydon*, the *Cort. Berber*, the *Fol. Centaur. Hyper. Croci*? Is it not from the same *Experience*, that we observe *Acids* also, at some times, very prevalent in bridling the exorbitant Bile. Likewise *Lixivials*, particularly the *Sapo-Castil. sive venet.* than which there is certainly no better Remedy: Not forgetting *Chalybiats in puris Naturalibus*, or the *mineral Waters* therewith impregnated: the *Expression* of the *Millepeds*, with fundry others; and is not this Knowledge surely, these *Observations*, and these *Experiments* sufficient to distinguish a *rational Physician* from a *Quack*, *Midwife*, or a *Country*



try Farmer, unless the Knowledge of *Wind-mills, Water-works, Gageing, Measuring, Numbers, Attraction, Repulsion, specific Gravity*, and what not, must be added to the same? Or does this Gentleman believe, that without these *Observations* and *Experiments*, he can cure a *Jaundice* better by the help of his *Arithmetic*, his *Algebra* or geometrical *Diagrams*? Much less I am sure will he be able to do this in *Fevers*, where *Observation* only, and *Experience* can assist us; no *Dissection* here, nor *Mechanism*, I fear (whatever he pretends to) will avail, where all is transacted by imperceptible Causes; nor can we come at the Knowledge of Effects, till they are produced or brought into Act: How then is *Nature* to be assisted, having no *Præcognita*, but from *Experience* and a diligent Attendance upon her Motions.

Parent *Nature* (saith Dr. Sydenham) accomplishes the Generation of all Things, which at any time she brings to light out of the Bosom of imperceptible Causes, by most certain Rules known only to herself, hiding their Essences or constitutive Differences in the greatest Obscurity. Hence every *Species* of Diseases,



Diseases, no less than of *Animals* and *Vegetables*, is always allotted affections peculiar to itself, and univocal, flowing from the same Essence: And yet the question notwithstanding will not be so considerable as it appears, viz. how we should cure Diseases, whilst we know not their Causes? For that the Cure of most of them (*particularly give me leave to say Fevers and Cephalic ones*) is perform'd, not by the Knowledge of their primitive Causes, but by a proper Method found out by *Experience*, and confirm'd by *Observation*.

But why should I use farther Arguments, when you may see from what immediately follows the foregoing Flourish, he is forced to give up all, and to come into our Measures. For \*

‘ Such (saith he) is the inimitable Contrivance discover'd in the Structure and Constitution of an *animal Machine*, that more *Fevers* are prevented and restrain'd by the care and Providence of *Nature*, than are ever cured by *Physicians*: And since she is the original Standard and *Archetype* of

\* Ibid. p. 214.



‘ *Art*, there is no need of any Thing else  
‘ for the Information and Instruction of a  
‘ good *Physician*, how to proceed in these  
‘ Cases, but only to observe the Measures of  
‘ *Nature*: How she obtains her End, when  
‘ she is not somehow or other prevented,  
‘ hinder’d and obstructed in her Work.

‘ Again, tho’ it is plain, that *Fevers* may  
‘ arise as well from *Repletion*, which is the  
‘ Cause of the greater Part, as *Inanition*, yet  
‘ are they very much mistaken who think  
‘ the Cure consists therefore chiefly in *De-*  
‘ *pletion* or *Evacuation*: Or who set about  
‘ this Work at any time, without regard to  
‘ Nature’s Conduct: And indeed it is a Thing  
‘ of the greatest Consequence, carefully to  
‘ observe and trace the several Steps and Gra-  
‘ dations of *Nature*, under any particular sort  
‘ of *Fever*, in those who recover, without  
‘ Assistance from Art; and this I shall ven-  
‘ ture to say, that no Physician can stand up-  
‘ on good Ground, as to the Method he is  
‘ to take, or the Succours he is to afford in  
‘ the cure of any *Fever*, till he has diligent-  
‘ ly observ’d and inform’d himself, how Na-  
‘ ture



ture cures the same *Fever*, when she does the Work of herself.

Farther, the word *Cause*, as apply'd to *Diseases*, is sometimes taken for the *antecedent* Occasions, by which they are brought on, such as an *overheating*, *taking Cold*, *bad Air*, *Diet*, *immoderate Evacuations*, *violent Passions*, or any *Excess in the Non-naturals*; all which may help a Physician to form a right Judgment, concerning the original morbid Constitution, or the Disease itself; but as the same antecedent occasional Causes, produce different Effects at different Times, and in different Constitutions; so 'tis the Symptoms alone, or sensible Appearance of the Disease, that can certainly be depended on in this Case: And which being thus known and found out by the Symptoms, with the consequent Indications of Cure, the next Enquiry is after the Remedy, or such Medicines as will most effectually answer the same general Indications: And this is what can be only known by *Experience*, and can never be obtain'd by any Method of *Reasoning a Priore*: No chymical Tortures, microscopical Inspections,



‘ tions, or other Methods of Trial, without  
 ‘ *Experience*, could ever have inform’d us of  
 ‘ the Powers and Properties of Medicines, or  
 ‘ what Effects they will produce within us.

Lastly, to sum up all, we find him arriv’d  
 to this Acknowledgment \*; ‘ Where we  
 ‘ cannot come at the necessary Data (*our pre-*  
 ‘ *sent Case*) Philosophising is trifling (*and Ma-*  
 ‘ *thematizing also*) and they who in such Cases,  
 ‘ affect Eloquence and Ostentation, may a-  
 ‘ muse and surprise the Vulgar (*these are his*  
 ‘ *own Words*) while they will certainly ex-  
 ‘ pose themselves to the just Ridicule and Con-  
 ‘ tempt of the truly Learned (*as have done*  
 ‘ *most of our mechanic Smatterers this way.*)  
 ‘ Since the Powers and Properties of Medi-  
 ‘ cines, or the Effects they are capable of pro-  
 ‘ ducing within us, can be only known by  
 ‘ *Experience*, a faithful Account of which,  
 ‘ grounded upon just *Observation*, and a long  
 ‘ continued impartial Trial (*the Things we*  
 ‘ *accord with and contend for*) must certainly  
 ‘ be Matters of the greatest Consequence; and  
 ‘ if any one demands the Reason hereof (*viz.*

\* *Idem* in his Preface to his Philosophical Principles.



‘ the Operation of Medicines) I must own  
 ‘ that I know nothing of it, but from *Expe-*  
 ‘ *rience*, which plainly evinces the Matter to  
 ‘ be so in fact.

To the like Purpose, we find another of  
 the same Class \*, after the recital of many  
 Words, under the specious shew of Argument,  
 concludes thus in the whole.

‘ So far as a Person can consider a human  
 Body as a *Machine*, and by the known  
 Laws of Motion, demonstrate the Powers  
 and Operations of its several Parts, (*how far*  
*this will reach let others judge*) so far may he  
 with certainty know how to manage it, in  
 order to produce any Change therein; that  
 is, if he has proper Instruments, and upon  
 the same Principles understands their Effi-  
 cacy, and manner of Application; (*a great*  
*Difficulty this*) a large Number indeed of the  
 Instruments by which it is either injur’d  
 or mended, are so small as to render it im-  
 possible, with strict certainty to determine  
 their Efficacy, because it is not possible ex-  
 actly to assign their Bulk, Figure and Mo-

\* Quincy in his Introduction to his *Sanctorius*.



‘ tions; and therefore cannot their manner  
‘ of working upon the *animal Fluids* be posi-  
‘ tively known: the Seat of the Disorder  
‘ may also, at some times, lye so many Stages  
‘ from the first taking in of a Medicine, that  
‘ if at its first entrance into the Stomach, its  
‘ Properties were never so certainly known;  
‘ yet by the Actions of the several Parts upon  
‘ it, which it passes through, and the differ-  
‘ ent Mixtures and Strainers it meets with,  
‘ by that Time it gets to the scene of Action,  
‘ its first Properties may be quite destroy’d,  
‘ and new ones acquir’d, the Efficacy of which,  
‘ after so many Changes, can never be de-  
‘ termin’d.’

From all which, I think, Sir, you may plainly see how little Respect, in some Cases, is to be paid to *Theorems* or *Propositions* of this *Kind*: Which tho’ never so true in themselves, in regard to certain Portions of Matter, under a diverse Modification, or constituting specifically this, or the other particular Distemper, or Disorder in the *animal Machine*; yet will our Knowledge in the rectifying thereof be little advanced thereby, especially in those where we have nothing



but *Observation* and *Experience* that can avail us.

‘ *Experience*, give me leave to say, in the  
 ‘ Words of an honest Practitioner \*, which  
 ‘ is our surest, if not only Guide, by whose  
 ‘ Laws and Rules, unless Physick be exercised,  
 ‘ it were better there was no such Thing :  
 ‘ For the Life of Man is too much trifled  
 ‘ with, when on this Hand, *Empirics* that  
 ‘ are ignorant of the History of Diseases, and  
 ‘ the Method of Cure, set up only with Re-  
 ‘ ceipts : And on the other, vain *Tatlers*, that  
 ‘ place all their hope in *Speculations*, by which  
 ‘ more People are destroy’d than would, if  
 ‘ left to themselves, or Nature’s Guidance ;  
 ‘ but that is Practice, and that alone will  
 ‘ help the Sick, which draws its curative In-  
 ‘ dications from the very *Phænomena* of the  
 ‘ Diseases, and confirms them by the same  
 ‘ *Experience*, by which the great *Hippocrates*  
 ‘ obtain’d his height : For indeed without  
 ‘ *practical Observation*, that which seems at  
 ‘ first very reasonable, may perchance prove  
 ‘ nothing else than the shadow of Reason, or a

\* *Sydenham.*



‘ *Phantome*, that is mere Opinion, and the  
‘ oftner (*says the good Man*) I converse with  
‘ others, I am the more confirm’d how dan-  
‘ gerous it is, even for the most acute, to  
‘ rack their Brains in the search of any Art or  
‘ *Science*, unless they constitute *Matter of Fact*,  
‘ as Judge and Empire of *Truth* and *False-*  
‘ *hood*.’

‘ I mean such as follow from Things done  
‘ and from those Observations only, which  
‘ practical and natural Appearances suggest,  
‘ for these will remain firm and unshaken, so  
‘ that tho’ the Practice of Physic, if you re-  
‘ spect the Order of Writing, may seem to  
‘ arise from *Hypotheses*, yet when solid and  
‘ genuine, they must owe their Original to  
‘ Practice.

‘ For Example sake, in *Hysteric* Diseases,  
‘ I do not therefore use *Chalybiats* and other  
‘ Things that invigorate the Blood, forbear-  
‘ ing those which evacuate, unless upon some  
‘ Occasions, but rather *Paregorics*; because  
‘ I first took it for granted, that the Disease  
‘ proceeded from the Animal Spirits weaken’d  
‘ and broken: But when the constant Ob-  
‘ servation of practical Appearances, had  
‘ taught



taught me that the giving of purging Medicines, always increas'd the Symptoms, and that Things contrary were wont to quiet the same, I took, I say, my *Hypothesis* from this and the other Observation of the natural *Phænomena*; so that the *Philosopher*, must here serve the *Empiric*; whereas, had I began with an *Hypothesis*, I had been equally as wise as he who goes about to build his House without first laying a Foundation.

‘ Nor is it enough (saith he) that we publish particular Successes either of any Method or Remedy, if neither the one nor the other has been found to obtain universally, the Circumstances every way rightly consider'd: for we ought as certainly to know that this or that Disease may be cur'd if we answer this or that Intention, as we do that this or the other Remedy will answer this or that Intention, which from *Experience* we have observ'd, at least for the greater part, has so answer'd.

To the same Purpose also hear *Baglivi*.

‘ I observe it necessary to do this or that from *Experience* only, which has confirm'd

H

‘ this



‘ this or the other Method to have succeeded  
‘ best ; for Instance, that in the Beginning  
‘ of *Fevers* we must not purge, since no  
‘ wholesome *Crisis* is of a sudden, or the  
‘ Matter as yet fitted for Evacuation ; the  
‘ like of sweating Remedies, too early ad-  
‘ minister’d, unless we were so happy as to  
‘ be Masters of such ( which also must be  
‘ found by *Experience* ) that at once were able  
‘ to stifle the Disease, as the *Bark* does the  
‘ *Intermittent*, and the same found also to  
‘ answer, after many repeated Trials \*.

I would now hope, Sir, if not from my own Opinion, from what I have here collected of others, you may be convinc’d that every practical Physician is to take pure *Nature* for his Guide, or that he must be exceeding careful in his Observations of her several Dispositions and Tendencies, as also of the Success formerly of his own Endeavours, to promote such as seem most likely to relieve her, and to check those which are exorbitant, or by which she is in Danger of being overfet.

\* *Baglivi’s Practice of Physick*, p. 320.



These, I say, must be the *Principles* he must go upon in such Cases, especially where he can obtain no better (which are those doubtless of *Fevers*) or more certain on which to rely.

Nor do I mean hereby or from any thing I have said, that it is not proper for a Physician to study *Mathematics* or *Mechanics*, by which his Judgment, in the Solution of medical Problems, may be better'd, or that he may satisfy himself by the same *Principles*, how such or such Appearances in the human Body are brought about, and reconcilable to the settled Laws establish'd by its Maker; but that he presume not to make any such *physical Problems* or Deductions the Rule of his Prescription, in such Disorders thereof, as thro' their inscrutable Properties, however *mechanically* transacted by *Nature* herself, together with his limited Understanding, unable to unravel them, are incapable thereof; yet even here we may give him leave to talk *mechanically*, provided he practise by *Observation* and a well-grounded *Experience*.

For did we rightly consider the Importance of Men's Lives, with which we are entrust-



ed, we should not surely put the same upon the most uncertain *Calculus* of *Numbers* or *mathematic Theorems*, how curiously soever wrought by a philosophic Brain; neither yet upon any *Propositions* or *Diagrams*, which oftentimes have no other Basis than meer *Hypothesis*; nor (as is the Custom of some who are always in haste when they should be most at leisure) call for the Pen and Ink, and write, as we say, off hand: But deliberate thoroughly upon each Case, and reflecting what we have observed of the like, at least so far as Comparison may allow, propose our Remedy, diversifying however as Variation in Circumstances, or some differing Indications may require; for believe me, unless you do so, whatever others may assert of the Insufficiency of *Observation*, without *mathematical* Acquirements, I will be bold to say, the poor Patient runs a greater Risque of his Life, and is at more Uncertainty under the Direction of his *Mechanician*, than that of the less accomplish'd this Way, but more heedfully observing and experienc'd Practitioner: And I cannot but agree so far in the same Sentiment of a once eminent Gentleman of the Profes-



sion \*, that a *Genius* well adapted, with a competent Knowledge of the learned Tongues, and a thorough Acquaintance with the *History of Diseases*, from a constant and full Practice, will make a more safe and useful Physician, than a Head fill'd with philosophical *Axioms*, or *mechanical Theorems*, will be able to produce.

One of the last of these I have seen, ere now, at a Stand by the Bed-side of the Sick, through the Want of such *Observation* in the Distemper, unable to foresee, with the Help of all his *Algebraic* Acquirements, a fatal *Crisis* of a *Fever* just at hand, predicted by the Nurse, and quickly after confirm'd.

How vainly then do some of these inculcate to their Pupils, that the *Moments of a Fluid are a Rectangle under the Quantity of Matter, and the pressing Velocity*; or that *Moments are equal to a Rectangle under the Celerity and Quantity of Matter, at a Time when they ought to be appris'd that the Matter of greatest Moment, and indeed the Fundamental, is to have the chief Regard to the present*

\* Sir R——d B——r.



Appearances and *Indications*; or laying aside all *Theorems* to direct such Remedies, as upon their own constant *Observation* and repeated *Experiments*, they have found to answer the said *Indications*.

For alas! what avails our Knowledge here, *that Fluids gravitate with a lateral Pressure, perpendicular to the Tangent of the Circle; that the Center of Gravity is a perpend to the incumbent Weight?* If whilst we are busied about these Fooleries (for they are no other at these Times) we overlook the weightiest Affair of all; or unless by *Tangents* and *Diagrams*, we could save a dying Patient, which is now only attainable by proper *Cordials*, or other *Alexipharmics*, such as a languishing Pulse dictates, and oppress'd Nature calls for; and if our Minds are otherwise employ'd now, what do we else but sacrifice our Fellow-Citizens to *Numbers* or *Quantities*, perhaps mistaken by a wrong *Calculus*, or if true, yet foreign to our Purpose? What do we, I say, other than suffer our Patient to die, not so much according to *Art*, as *learned Nonsense*; and then who knows not the *Center* of his *Gravity* to be the Grave? or indeed in what better



better condition is he, if under this Management, than was their great Master *Archimedes*, who whilst he was intent upon his *Circles* and *Diagrams*, was knock'd on the Head by a common Soldier, whom otherwise he had escaped?

You will think, surely by this time, I have said enough to convince any considerate Person, that however these Qualifications, I mean *mèchanical*, may help in the Explication of certain *Phænomena* in human Bodies, whether healthful or diseased, with more Satisfaction than by other Principles can be obtain'd; yet with Regard to our present Dissertation, *i. e.* about *Fevers*, they will stand him in little Service; I wish I could say they might be found certain in many others; for notwithstanding they promise great Matters, I find few Advances among their Owners, either in the Way of *Proposition*, *Axiom*, *Problem* or *Theorem*, in which they are all rightly agreed one with another, or in which some have not oppos'd the rest. If you will give yourself the Trouble to peruse that elaborate Performance of *Michellotus* \*, you will find

\* De Secretione Fluidorum.



what I here alledge, to be verify'd in an hundred Places; but it is time I should now have done with this part of my Subject, intended chiefly to convince you, that as you ever expect to be a successful Practitioner, not a *talking Physician*, you must have a constant and careful Eye to Practice. I mean, having sufficiently inform'd yourself, of the Structure and Use of the Parts in human Bodies, both found and diseased, you are then by diligent *Observation* to collect such a Number of *diagnostic* Signs, as may give you a just and true Insight into the Nature of the Disease, such as may enable you to distinguish the same from others, how like soever in some common Appearances: Among them (where you can come at them) those especially which are *pathognomonic*, are of greatest Advantage: And when by a Series of these carefully collected from the Writings of the Antients, as well as practical modern Authors, such for Instance, of the latter Sort, as the judicious and learned *Riverius*, and the faithful *Sydenham*, more particularly verify'd by your own Observations, being beforehand as thoroughly acquainted with the *Materia Medica*, hav-

ing



ing hereby found out your Disease, you are then to direct the Remedy; such as you have also observ'd to have been recommended by the same or others the like honest Practitioners in the Case, and as your own Experience thereof shall after farther encourage.

During this, I think it expedient you make some short *Memoirs* of the Success from time to time, carefully noting every new or unusual Accident, which seem'd to frustrate your Endeavours, or perplex your Judgment in the Case, and minuting them down in like manner.

For as the Author \* we have often quoted, has justly taken Notice, a Physician may as certainly take his curative Indications from the smallest Circumstances of the Disease, as he does his *Diagnostics*: And had we once an exact *History of Diseases*, we should never be at a loss for Remedies suitable to them. The various *Phænomena* plainly shewing the Way in which we should at all times proceed, and which if carefully compared one with the other, would lead us to those obvious In-

\* Dr. Sydenham.



dications which are taken truly from *Nature*, and not from the Errors of Mens fancies.

But after a sufficient Collection of these, whether made to your Hand by others, or of your own, which carry with them the greatest Satisfaction, together with their Events, you are to found your *Prognostics*, that truly noble and advantageous part of the Profession, and by which an almost equal Honour, when rightly form'd and accordingly fulfill'd, accrues, as by the Cure, which of itself distinguisheth you sufficiently from a *Quack*, and will stand you in greater Use, than all the philosophical Niceties of which you can make yourself a Master.

As a help to this, your frequently dissecting Bodies defunct by Means of the same Disease, will sometimes afford much Insight, and confirm a well grounded *medical Presage*: Nor need you other *Principles* to go upon, or Basis on which to build, than the same close Attention upon *Experiments* and a rational Practice, furnish'd by a full Employment; till then, you are to make use of that of others, and which, as *Helvetius* takes Notice, is the only way to improve in this Profession  
of



of Physick: 'Tis this indeed, as that great Man farther observes, that with a large Stock of *Prudence*, and a larger of *Probity*, will furnish such a Physician, as may be able to discharge, with a good Conscience, the Duties requir'd of him.

This Gentleman, 'tis true, as well as certain others, tell us now that a Method must be observed, even in our *Observations*, which are therefore to be reduced to some Rule; having always an Eye to those immutable Laws, by which Nature has regulated the *Mechanism* of human Bodies \*.

As if we thought that *Reason* was to be excluded from our *Observations*, without which they must be lame and imperfect: Or as if one who could *reason* rightly about the same, and was truly expert in making them, was not the fittest Person to reduce the various *Specifications*, or different Appearances of the same Diseases, so far as possible, to their proper Class, any more than the *Botanist*, the several Simples of the same general Denomination, to their peculiar Tribes unto which they belong.

\* Essay on the *Animal Oeconomy*.



Mistake me not then, dear Sir, so far as to think I would have you lay your *Reason* aside, at a time when you will want it most, by taking care that your Remarks are just, upon Nature's several Motions, that your Inferences are rightly drawn, and that by Means of some Complication in the Distemper, you are not deceived.

Our Friend *Baglivi* will inform you \*, that the chief Pillars of Physick are *Reason* and *Observation*, and that the latter is the Thread to which the former is to point: For as *Nature* is the same, so every Disease afflicting her, has its certain and peculiar Mode, both at its first Onset, as well as at the time of its Increase and Declension. Now all these being brought about independently of the human Mind, so in tracing their *Nature*, we have not so much Occasion for a subtil or disguised way of Disputation concerning her Operations, so much as a repeated and sedulous Observation of what befalls the sick Person, which, as *Sydenham* (whose Words these are) has before taken Notice, requires neither *algebraical* nor *geometrical* Knowledge, but

\* Practice of Physick.



only such Acuteness of Understanding, as is conformable and obedient to Nature's Measures, and to her Instructions.

' It was *Necessity*, saith the former, that  
' gave Being to *Physick*, but *Experience* that  
' brought it to Perfection : In its Infancy it  
' was gross and stupid ; yet in progress of  
' Time, by the daily Accession of new *Ob-*  
' *servations* mutually illustrating each other,  
' and especially by the Light of *Reason*,  
' guiding and over-ruling all, it became a  
' *liberal* and learned Art.

And thus you see how these are to go Hand in Hand, for whose better Illustration, take here the ensuing Case, in which myself was concern'd.

When a raw Practitioner, being sent for to a Person labouring under a very acute Pain on the Side, I caus'd him presently to be let Blood, which I knew by the Approbation of all, was the prime Remedy : Afterwards I directed (as customary also) *oily Draughts*, *Sperma Ceti Boles*, with a *pectoral Decoction*; the Complaint continuing, I repeated Bleeding, but without Advantage. On the third Day, a Person of more Experience, and a  
founder



founder Judgment was call'd, who presently taking the Case, which I had mistaken, order'd a *volatile* Draught, with one Grain of *Opium*, which with a few Spoonfuls of a *carminative* Mixture between whiles, immediately remov'd the Illness; whence I was to my Discredit convinc'd, there was occasion both to observe, and to reason also: For had I, as a prudent and experienc'd Man, taken Notice, that instead of a hard and high Pulse, we had one that was low and deprest; in the Place of an inflammatory Urine, or a fizy Blood, the former crude and pale, the other florid; nor did my Patient cry out more at a time of Coughing or deep Breathing than at another; Symptoms all different from what happens in the genuine *Pleurisy*; I might have known this Case was only *spasmodic*, or purely flatulent, and that in vain were all my Endeavours, treating the same as an Inflammation, which in few Minutes I might have taken off, and saved my Patient's Blood, for which I had been answerable, had he miscarry'd thereby, or had not a more expert Practitioner step'd in to ransom him.

I have instanced the rather in this Case,  
there



there being none more common than such *Spasms* or Cramp-like Complaints, upon the nervous and membranous Parts of the Body, also frequently on those of the Trunk or Chest, imitating both *Peripneumony* and *Pleurisy*: In which neither Bleeding nor Expecto-  
rants, however serviceable in the true Affections of that Kind, are other than delu-  
sory and trifling: And where nothing takes off the Complaint like an Opiate, proportionate to the Degree thereof, together with the *Sal C. C. Vol.* or its Spirit *per se destil.* which I have found much more serviceable on these Occasions than in the inflammatory Cases, tho' here also it is customary to give them; neither must the Lowness of the Pulse at all Times, which is the Effect of the Pain arising from the *Spasm*, hinder the giving a suitable Anodyne unless forbid by some Disorder in the respiratory Organs; as in *Dyspnæa's* from pituitous Infarctions of the *Bronchiæ*, or other Obstructions, which will rise again immediately upon removal of the Pain.

To conclude: As the Design of the foregoing was to caution you from taking any curative Indications from *Hypotheses* or *Theories*  
of



of any Kind, which correspond not with *Observation*, or are contraindicated by the Touchstone of *Experience*: So on the other, to persuade the use of *Reason* in forming your *Observations*, and reducing them to such Method, that upon Occasion, having recourse thereto, you may readily find out the *Disease*, with the *Method*, which from a preceding Success under the same Appearance, had proved serviceable: Nor by any Thing I have said, would I have it supposed, that you are so ty'd down to simple *Experiment*, but that wherever there is room for it, you may also argue thereupon, as well in regard to the Disease you encounter, as the *Modus* of Operation, whereby the Remedy subdues the same: Which yet in Fevers, particularly of the nervous Kind, (the Subject chiefly of our present Discourse) is not, I think, to much Purpose: However should you at any Time hereafter see Cause to believe otherwise, I would enjoin you, if I could, for your Patient's Advantage, first to cure him by *Observation*, as *Nature*, not busy *Art* chalks out the Way, and that too by the most simple Medicines *Experience* dictates, when if you please, from what

*Hypo-*



*Hypothesis* you will, either *Physical* or *Mechanical*, you may explain the Process: I cannot persuade myself you will think this a *Postulate* unreasonable, for in those Cases, where we can only argue truly or rightly, unless *à postèriori*, or that all we offer *à parte antè*, will be deemed no other than a *gratis Dictum*, it is now soon enough to begin our Reasoning, *ex post factis*, which whether or no satisfactory to Conviction, is sure to be attended with this Advantage above the other, that it will not hurt your Patient, however it may affect your own Judgment and Reputation.

I am too well apprised of your Candour, to doubt your taking all in good Part, being very sensible, that if any Thing I here offer, may prove instructive to others under the same Cover, it will be equally satisfactory to yourself, as to,

S I R,

*Your Friend, and very*

Ex Musæo Die 25  
Martij 1727.

*Humble Servant.*



THE  
SECOND LETTER

TO A

YOUNG PHYSICIAN,

Directing his Regimen for the Cure,  
and his Conduct to the Sick.

---

*Medio tutissimus ibis.*

Ovid.

---

*Dear Doctor,*

**I**N my former, having advis'd you to trust to no *Hypotheses* or *Theories*, in your Attendance upon *Fevers*; or borrowing thence any *curative Indications*, which can be of no Advantage to your Patient, any farther than supported by *Observation*, or confirm'd by *Experience*: I shall in this take Occasion



caſion to deliver my Thoughts with the like Freedom concerning the *Regimen*, I mean the *Medicinal*, moſt ſuitable to the various Kinds thereof; ſuch as I have obſerved moſt available, and by which you may run the leaſt hazard of your Patient's Life, as well as your own Credit, when other Gentlemen, if of Probity equal to their Learning, ſhall happen to be call'd in upon you.

But before I enter upon this, I will here give you ſome general Definitions of the Diſeaſe, as well as touch upon the Subdiviſions thereof.

Fiſt, I obſerve Diſputes, as to the very *Eſſence* of a Fever, among the *Mechanicians* themſelves! Thus

A Fever, according to Dr. *Pitcairn* \*, is nothing more than an increaſed *Velocity* of the Blood's Motion, to which another of the ſame Form † answers, that it is fiſt of all a great Miſtake in thoſe who judge of the *Velocity* of the Blood, by the frequency or quickneſs of the Pulſe; as if a quick Pulſe always indicated an increaſed *Velocity*. And

\* Elements of Phyſick.

† *Morgan* in his Philoſophical Principles.



2dly, a greater, to define a Fever by an increased *Velocity* of the Blood: For nothing is more manifest to Experience than this, that the *Velocity* of the Blood may be encreased extremely without a *Fever*, as upon violent Motion, hard Drinking, or the like; and on the contrary, its *Velocity* is oftentimes diminish'd, as appears from the great Weakness of the Pulse in the worst of Fevers. ' So  
' that a Fever with this Gentleman, consists  
' in a preternatural Heat and Rarefaction of  
' the Blood, attended with Inflammation,  
' Dilatation of the Blood Vessels, and a consequent Compressure and *Obstipation* (*for you know these People delight in odd Words*)  
' of the *Lymphaticks* and *glandular Strainers*:  
' And according to the different Degree and  
' Quantity of these Causes, there will particular *Fevers* arise, of a higher or lower  
' Rank, and whose Symptoms will be more  
' or less numerous, grievous and threatening,  
' in proportion to the Degree of Force, and  
' particular determination of these general  
' Causes: And therefore it is plainly impossible in his Opinion, and the Attempt perfectly chimerical, to reduce Fevers to any  
certain



‘ certain and determinate Number, under  
 ‘ proper and specific Names, so as to ex-  
 ‘ clude any new Forms or Appearances; such  
 ‘ as might give Occasion for some other Spe-  
 ‘ cification: For from the different Degrees  
 ‘ of Quantity and Rarefaction, Inflammation  
 ‘ and Obstruction, in Fevers, the different  
 ‘ irregular Flux and Determination of the  
 ‘ Blood and other Animal Fluids, in particu-  
 ‘ lar Cases, innumerable Symptoms may a-  
 ‘ rise, some new ones every Day, which had  
 ‘ not been observ’d before.’

*Bellini's* Opinion of Fevers we have already  
 laid down in our former.

A late Writer upon the same Subject \*,  
 who has taken many *Axioms* from him, ac-  
 quaints us, that an unusual or preternatural  
 heat, along with a frequency or quickness of  
 Pulse, denotes a Fever; but this is liable to  
 the same Objection as the former, since what-  
 ever quickens the Pulse, will bring on Heat,  
 as we have instanced in Persons quickening  
 their Pace to make themselves warm, and as  
 in the Case of drinking over much strong Li-

\* Criticon Febrium by Dr. *Strother*.



quors: But the same Person doth acknowledge *that the frequency of the Pulse alone does not constitute the Essence of a Fever, till it degenerates into a Celerity*, nor surely then, if there be no other Attendant.

The excellent *Boerhaave* is more full in his Explication \*; for tho' with the rest, he tells us, whatever a Physician can discover of a *Fever*, is to be found by the quick Pulse, which hath for its Cause a quicker Contraction of the Heart, owing to the reciprocal Influx of the *Liquidum Nervosum*, with greater frequency than at other Times, dispensed to the Muscles and to the Cavities of the same Part, from whose irregular Influx, the Pulse will sometimes vary, as slower, faster, or intermitting: But then to difference this Velocity in Fevers, from that which may arise upon other Occasions, he says farther, that it must be attended at its first Onset with a *Chill*, a *Rigour* or a *Tremor*, after which ensues the Heat, greater or less, of longer or shorter Durance, according to the Nature of the *Fever*; for as these are more

\* Aphorismi de Febribus.



or less vehement, there will arise either the *acute* or the *slow* Fever, but in every one, proceeding from an inward Cause, there must be the *Horripulatio*, as well as the *Pulsus velox & celer, infecuta*.

It were both needless and useless to enter farther upon the Definition of a Disease, with whose real Nature we are so little acquainted, and therefore very prudently hath *Helvetius* \* fallen upon the surest Method, where he informs his Reader that a *Fever*, as other acute Diseases, is better describ'd than defin'd. Thus when we see a Person seiz'd with a preternatural Heat, and quickness of his Pulse, we are not to say that such a Person is in a *Fever*, unless these Symptoms are accompany'd with some Disorder in the natural Functions; for the Heat and quick Pulse may happen without a *Fever*, as before observ'd.

In regard likewise to its *Essence*, so also to the Cause, there is variety of Opinions: *Belini* and *Borelli*, the two principal of the *Mechanicians*, as we have before intimated,

\* Essay on the Animal Oeconomy.



allow of nothing else than *Motion* and *Quantity* in the Blood, increased or diminish'd, with its *Quality* alter'd, one or all of them, but which or how, seems difficultly explain'd, so as to conduce to the Production of the several Species thereof. This is said to be a very lucky Invention, as surely it must be granted, could the several Appearances therein be satisfactorily explain'd, without recurring to precarious *Hypotheses*; or that we could thence take better *Indications* for the Cure, than from some others, who have placed the same in a *fermenting Matter*, or a *disturbed Mixture of the Mass*, an *Acrimony of the Juices breaking the Globules*, and *shedding a poisonous Liquor thereinto*; contrary to which last I find the foresaid Author delivering his Opinion, \* viz.

‘ That all *Fevers* are caused by some gross  
 ‘ indigestible Humour, contain'd in the *Lym-*  
 ‘ *pha* or Serum of the Blood, whilst the *Glo-*  
 ‘ *bules* are unconcern'd, stagnating as it were  
 ‘ in the *Lymphatic Vessels*.

And according to the *Criticon*, ‘ the Mass

\* Idem ibidem.



‘ at these Times contains some unusual Mix-  
 ‘ ture of extraneous Qualities and Matter,  
 ‘ which makes the Motion thereof irregular,  
 ‘ and keeps it out of order, till the same is  
 ‘ separated therefrom: This is what gives  
 ‘ rise to all the Symptoms that in Fevers so  
 ‘ grievously afflict our *Oeconomy*: And tho’  
 ‘ *Bellini* doth assert there is nothing farther  
 ‘ contain’d in the Blood, save its different  
 ‘ *Quantities* of Matter, by which it fills the  
 ‘ Vessels to a certain Pitch, with its Degrees  
 ‘ of *Velocity*, which are but the Result of the  
 ‘ more or less active Qualities contain’d there-  
 ‘ in; yet no Man can practically assure you,  
 ‘ whether the bare increase of the *Velocity* of  
 ‘ the Blood’s Motion, may not rarify its  
 ‘ Particles, and fill each Section of the Vef-  
 ‘ sels in an equal Degree, as if the *Quantity*  
 ‘ had been really encreased \*.

Be this, however, as it will, and our Igno-  
 rance of the essential Causes of Fevers as  
 great as it may be, that there is (as this Au-  
 thor rightly observes) somewhat foreign to  
*Nature*, got into the Blood at these Times,

\* *Criticon Febrium*, p. 78.



is beyond Controversy, and evident surely by her *Luētus* or Strife to get clear thereof; of which we have for Witnesses our Senses, When any poisonous Drug is taken into the Body, occasioning the like Disturbance, as is rais'd frequently therein, by some malignant Fever, such as Thirst, dry and black Tongue, enormous Vomiting or Looseness, shedding of the Hair, breaking out on the Skin, &c. with other deadly Symptoms, unless she happens to get the Victory, in a hard Struggle for Life: Why then should we doubt but that some noxious Particles shut in, that ought to have perspir'd; or others entering from without, either inspir'd along with a contaminated *Atmosphere*, swallow'd with our Food, or finding any way Admittance, may not be able to raise an Effervescence or Perturbation of like Kind, to the endangering, if not subverting of the Animal Fabrick?

That this Liquor of the Blood is capable, and does naturally undergo a Sort of Fermentation, seems plainly deducible from the Heterogeneity of its Parts, I mean those composing the same, *viz.* our Aliments; which in their Comminution, admixt with those in



the Stomach, together with that of the *Salival* Juice convey'd along with them; and after entering the *Duodenum*, the *bilious* and *pancreatic*; being thus convey'd into the Mass, by the Thoracic Duct, they cannot, I say, miss fermenting and raising a Heat therein, which from a *natural* Degree may, by divers Causes (as in the Case of *Fevers*) become *preternatural*.

For, as *Helvetius* has pertinently noted \*,  
 ' the Blood has a threefold Motion, the one  
 ' of Fluidity, common to other Liquors, the  
 ' second *protrusive* from the Impulse of the  
 ' Heart and Arteries, herein differing from  
 ' those; a third *fermentative*, or a Motion  
 ' throughout of all its Parts; this (says he)  
 ' I call *Intestine*, agreeable to all Fluids, un-  
 ' der a State of *Fermentation*, producing the  
 ' various Humours of which it consists, and  
 ' giving warmth to all the Parts. The Mo-  
 ' tion of the Air is not the Principle of this  
 ' Fluidity, which rather coagulates the same,  
 ' as soon as expos'd thereto: This Quality  
 ' is therefore owing to the Motion of the

\* In his Essay.



‘ *Solids*, through which it passes, together  
‘ with the fermentative Motion within itself.  
‘ The protrusive Motion is then from the  
‘ Heart and the solid Parts, the fermentative  
‘ from its own dissimilar ones; for being a  
‘ Compound made up of various Particles, it  
‘ cannot fail of containing those which are  
‘ capable of *Fermentation*, when such Par-  
‘ ticles occur, by Reason of the Colluctation  
‘ thence arising, together with the violent  
‘ Commotion thereof.

‘ In vain is this deny’d which is so mani-  
‘ fest, such as the Heat thereby arising, and  
‘ communicated throughout the Body, the  
‘ Fermentation of the *Bile*, *Saliva*, and other  
‘ Humours, with their Power of Rarification,  
‘ which can only arise from this inward Mo-  
‘ tion of the several Particles; call it *Efferve-*  
‘ *scence*, *Ebullition*, or what you please, we  
‘ shall call it *Fermentation*; and that a *Fever*  
‘ is to be no otherwise consider’d than a Dis-  
‘ ease arising from some unusual *Ferment*,  
‘ stirred up among the Humours of the  
‘ Blood, disturbing both those natural Mo-  
‘ tions and Functions of the Body, taking  
‘ rise from several Causes, as the cold Air, a



‘ Debauch in eating and drinking; whereby  
 ‘ some Parts of the Aliment or Liquors taken  
 ‘ down, being hindred from perspiring, or  
 ‘ unduly retained in the Blood, will give a  
 ‘ quick and large Accession to such as are  
 ‘ disposed to ferment; and whence will  
 ‘ come on a brisker *Fermentation*, that is a  
 ‘ *Fever*.

And this, Sir, I think, is farther manifest, by what we call the *Crisis* thereof, which is nothing more than the same Fermentation finish’d, when the Blood, now as it were despum’d (after the Manner of other Liquors under that State, some of which require a longer, others a shorter Space for the same) the Strife ceaseth, if Nature gets the better; and the Mass by degrees recovering its former Condition, Health is again restored; otherwise being unable to accomplish the Work, she is forced to sink down under the Conflict.

Let this now suffice, as to the general Cause and *diagnostic* Signs of Fevers, the *Prognostics* whereof must be gather’d from the Nature and Tendency of the Fever itself; as whether to the *benign* or *malign* Species, or complicate with Symptoms more or less formidable;



midable; of which farther in our Observation of the several Sorts of them.

In the *Division* of this Disease, we find also as great Variety as in the *Definitions*; that of the Antients was the *Synochus simplex ac putrida*, the *Causus* or *Ardent*, the *Hectic*, *Intermittent* and *Malignant*. The two first went under the Name of *συνοχῆς*, the last was denominated *συνοχὸς*: The former differing little otherwise than in its less or greater Heat and Continuance. The mildest or lowest Degree of all is term'd *Ephemera*, as ending in a Day; yet sometimes running out to greater Length, *viz.* two or three. Opposite to the *Causus* or burning Fever, is the *Colliquative*, when instead of the violent Heat ensue as extreme Sweats, in which the Sick is, as it were, instantly melted down, the Humours going off, either by the Pores of the Skin, or by some other profuse Evacuations, *viz.* Stool or Urine, as in the Diabetes; also the *Epiala utriusque Generis*, in one of which the internal Parts seem cold, whilst the external are hot; in the other the internal Parts are hot, whilst the external ones are cold. To the former also belong the com-  
mon



## Let. II. Concerning FEVERS. 131

mon *Inflammatory*, which from the Part affected, takes its Name of *Anginalis*, *Peripneumonica*, *Pleuritis*, and the like: To the latter are adjoin'd, by some, the *Eruptive*, such as the *Variolous*, *Morbillous*, the *Erysipelatous*, *Miliaris*, *Rubeolæ*, *Rasby* and *Petechial*; tho' the three former, I think, should more properly be number'd among those of the *inflammatory* Class.

Others have differenced them only as *Remitting*, *Intermitting* and *Continual*; whilst a modern Author \* has farther confounded us with unheard of Terms of *Flatulent*, *Influent*, *Effluent*, *Inflatulent*, *Efflatulent*, *Influo-colliquative*, and *Effluo-colliquative*, with the like new Phrases, minted in a Country Town; and with some other *Mathematical* Discoveries brought lately to us in *London*. Proceeding now,

‘ *Fevers*, saith *Helvetius* †, may be distinguish'd as *Intermitting* and *Continual*;  
 ‘ all of them are occasion'd by some Alteration in the Juices or Humours, with which  
 ‘ the *Lympha* is clogg'd; and which are not

\* *Morgan* in his *Philosophical Principles of Physick*.

† *Essay*, p. 17.



' thrown off all at once; Part of them  
 ' unite with the *Lympha*, and are dis-  
 ' charged into the *Primæ Viæ*, the Sto-  
 ' mach and Guts; where assembling, they  
 ' tumultuate and corrupt the Aliment; after  
 ' which being here disingaged again, they are  
 ' thrown into the Blood, and raise a *Fever*;  
 ' when continuing to be dissolved and dis-  
 ' charged without *Intermission*, the Fever is  
 ' *continual*: But when to unfold and expand  
 ' themselves, they require any stated Time,  
 ' as several Hours or Days, they cause *inter-*  
 ' *mitting Fevers*, whether *Quotidian*, *Tertain*,  
 ' or *Quartan*; the Difference depending on  
 ' the Quality of the Humour, the Facility  
 ' with which it disingageth itself, and the  
 ' Time it takes up to get clear of the *Lym-*  
 ' *pha*, and to pass thro' the *Primæ Viæ*.

' Dr. *Pitcairn* has distinguish'd them as  
 ' *Legitimate* and *Illegitimate* \*. A *Legiti-*  
 ' *mate* Fever makes its Onset without any  
 ' Sense of Cold or Shaking, that is, when  
 ' there is no other Disease accompanying.

' The *Illegitimate*, is when the Fever is at-

\* See his Elements of Physick,



‘ tended with some other Disease, or if to an  
 ‘ augmented *Velocity* of the Blood (by which  
 ‘ you have heard he defines the Distemper in  
 ‘ general) some other Fault therein, or in the  
 ‘ *Solids*, is also join’d, as a Lensor in the  
 ‘ same, or some internal Ulcer; for then the  
 ‘ Disease is not a simple Fever, but compli-  
 ‘ cated, or with an adjunct, which is to be  
 ‘ consider’d in the Cure: So that if the  
 ‘ Cause producing a Fever, part of which  
 ‘ also is an augmented *Velocity* of the Blood,  
 ‘ produces a new Period, in any given Time,  
 ‘ before the foregoing quite ceases, the Disease  
 ‘ will be a *continued periodic Fever*: But if  
 ‘ it does not produce a new Period, until a  
 ‘ certain Time after the former has finish’d  
 ‘ its Course, it is then call’d an *intermitting*  
 ‘ *Fever*. In both therefore, whether a *con-*  
 ‘ *tinued Periodic*, or an *Intermittent*, accord-  
 ‘ ing to the Number of Hours between the  
 ‘ Periods, it is *Quotidian*, a *Tertian*, or a  
 ‘ *Quartan*: So that the Sum of all in this  
 ‘ Gentleman’s own Words is, that *a Fever*  
 ‘ *is an equable Augmentation of the Blood’s Cir-*  
 ‘ *culation, either remitting or intermitting.*

‘ Or a Fever (*according to the same*) may



‘ be otherwise distinguish’d, as already ob-  
 ‘ serv’d, into an *Ephamera* of one or more  
 ‘ Days, a *simple Synochus*, or a Fever from  
 ‘ Rarification, a *putrid or continent one*, and a  
 ‘ *Hectic*, which goes on uniformly, except-  
 ‘ ing that the Pulse and Heat are slightly  
 ‘ rais’d after eating.

‘ All these (*saieth he*) are *legitimate* and  
 ‘ *simple Fevers* so call’d, consisting of many  
 ‘ Periods, and free from *Remissions* and *Inter-*  
 ‘ *missions*; nor do they in any Manner differ,  
 ‘ (*if you can give Credit thereto*) than in the  
 ‘ Degree of the *Velocity* in the Circulation of  
 ‘ the Blood, and the consequent Rarification  
 ‘ and Heat, the Effect of both; the various  
 ‘ Degrees of which produce Symptoms,  
 ‘ which to the Unskillful (*I wish they prove*  
 ‘ *not so at some times to the more Skillful*) may  
 ‘ seem to be very divers, or of another Kind.

The following, which for your greater  
 Satisfaction, I have here inserted, is taken  
 from Professor *Boerhaave* \*, who informs  
 his Pupils, ‘ that a *Fever* is always the Com-  
 panion of some *Inflammation*, either *conti-*

\* Aphorismi de Feb.



‘ *nual*, remitting or intermitting; the most  
 ‘ simple of the continual being on all Sides a-  
 ‘ greed to be the *Ephemera* or *Diaria*, arising  
 ‘ from violent Exercise, or some Trespafs in  
 ‘ the *Non-naturals*; particularly eating and  
 ‘ drinking something disagreeable, which is  
 ‘ to be remov’d by Rest, Abstinence and Di-  
 ‘ lution: If it holds longer than a Day, it  
 ‘ is named a *continual imputrid Fever*, and  
 ‘ then may stand in need of Bleeding  
 ‘ and Refrigerants. The *Continual Putrid* or  
 ‘ *Synochus Putris*, ariseth also from a simple  
 ‘ Inflammation or Obstruction of the Bowels,  
 ‘ through the Perspiration disorder’d; this is  
 ‘ discover’d by its pungent Heat, irregular  
 ‘ Pulse, thick high colour’d Urine, some  
 ‘ times turbid, tho’ at others crude, without  
 ‘ a Sediment; and must be differently at-  
 ‘ tempted, according to Indications from the  
 ‘ Variety of attending Symptoms, the Con-  
 ‘ dition of Life, and the Time or State of the  
 ‘ Disease; and these are called *Continentes* five  
 ‘ *συνόχες*, having no Remission of their Heat:  
 ‘ *συνεχῆς vero seu continuas appellantur, quæ*  
 ‘ *continuæ sunt remittentes.*



‘ The *Ardent*, called also *Causus*, is a distinct Species, so named from its intense Heat, great Thirst, difficult Breathing with the dry Tongue, Anxiety, Restlessness: Which may also befall those who take long Journeys in hot Weather, or feed much upon acrid and spicy Foods, with strong inflaming Liquors; this being one of the most acute Fevers we have, destroying the Patient often before the fourth Day, seldom holding out to the seventh.

It was the Custom of the antient as well as modern Writers, to call every continued Fever by the Name of *Synochus*. If the same held only for a Day or two, as the *Ephemera*, it was then *Simplex* or *Synochus imputris*, when running longer out, *Synochus putris*, or a continual *putrid* Fever. Which Epithet I think is not always rightly appropriated: For should we grant with the last mentioned Author, that every Fever is the Companion of some *Inflammation*, which may hold good of the *Sanguineous*, or those which take rise from some Trespas in the *Non-naturals*, particularly the obstructed Perspiration: Yet I cannot think every *inflammatory* Fever has a

Title



Title (strictly speaking) to the Name of a *putrid* One. The *Angina*, *Peripneumony*, and *Pleurisy*, which are the highest inflammatory Fevers, are, properly speaking, not yet become putrid, till an Abscess is form'd upon the Parts, when by reason of some purulent Particles mixing with the Blood in its Circulation, the same is then truly a *putrid Synochus*. Whilst any Tubercle in the Lungs continues in its inflam'd State, the attending Fever may be call'd an *inflammatory Fever* from that part inflamed, but when the same apostematizes, and an Ulcer is form'd, it then becomes a *putrid Fever*, ending often in an *Hectic*. The like may be said of any Inflammation on the other *Viscera*, turning to an *Abscess*: As also of the *secondary Fever* of the *Small Pox*, which, as our *Sydenham* takes notice, is a different Fever from the *Inflammatory*, preceding both the *Eruption* and *Maturation*; but so soon (saith he) as those little *Pblegmons* are suppurated and turn'd to Matter, a new Fever arises, which is truly putrid, or a *putrid Fever*, properly so call'd, taking its rise from some putrid Particles suck'd into the Blood, and as it were now poison-



ing the Patient, till the same are thence discharg'd or subdued; which nothing does more effectually than large bleeding, by which those morbid Particles, which are as it were the *Fomes* of the Disease, are drawn off, whilst the rest are eliminated at the Termination of the Distemper by suitable *Catharticks*.

There is another Division I shall take Notice of, in relation to Fevers which is that from Dr. *Strother* \*, who divides them all into *Ardent* and *Heetical*: Under both Kinds comprehending the *simple* and putrid *Synochus*, as also the *Συνοχὸς* or *malignant*. The first he saith has a quick Pulse, Heat, and high coloured Urine with a copious Sediment, and lasts seven Days without Remission; the second has the same Appearances, but in a greater Degree, acquiring sundry Names from its various attending Symptoms, as *Elodes*, *Affodes*, *Epiala*, *Rheumatica*, *Pleuritica*, *Anginosa*, *Erysipelatosa*, &c. The latter is a continual Fever of the worst sort, usher'd in with the most threatening Appearances, as the dry and black Tongue, *Vigil*, *Delirium*, *Sub-*

\* In his *Criticon Feb.*



*sultus*, pale, straw-coloured, unconcocted Urine; which is farther subdivided into the *Simple*, *Malignant*, *Pestilential* and *Pestis*, bringing them all however under the aforesaid two-fold Denomination; for if the Heat be either above or below the *natural Standard*, we either burn with a *Causus*, or are afflicted with a *Hectic*: These two, *viz.* *Ardent* and *Hectical*, according to our Author, contain the summary of Fevers, whilst their Extremes are the occasion of all the supervening Symptoms, if we add some Qualities conjoin'd, from whence they may be said to have their *Esse*. For if the *fiery* Particles are plentiful in regard of the *humid* ones, the *Ardent* is produced; but if the *humid* or *serous* superabound the *Hectical*: And this he will have to be also the most useful Division of them, under which are contain'd both *Intermitting*, *Remitting* and *Continual*, as well as the *Malignant*: The *Eruptive* are reckon'd of a *neutral* Sort; but in the farther prosecution of the same Subject, he tells us, that if we rightly consider, we shall find that Fevers differ only in *Degrees*; that an *Ephamera* is the lightest of all, where the Urine settles



at the very beginning; that this *Ephéméra* may turn to a *Synochus Simplex*, and that to a *Putrid*, which has its *Remissions* and *Exacerbations*, but no certain *Intermissions*: And this *Putrid* may degenerate into a *Malignant*; that each may turn to an *Intermittent*, which begins with Coldness, as does the *Remitting*; whilst the *Malign* comes on with *Rigor* if of the *hectic* Species, but a *Horror* when of the *Ardent*: So that all are attended either with *Algors*, *Rigors* or *Horrors*, returning with each *Paroxysm* of the *Intermittent*, but not so in the *Remittent*, where the same appears only at the first, unless shifting as they do frequently, the *Continual* remitting, the *Remitting* growing into *Continual*, and both running into *Intermittents*: A plain Indication, saith he, of their differing only in the *more* or *less*.

The last Account I shall give you of this Disease, shall be the following from Dr. Sydenham, which tho' divested of all *Theory* and *mechanic Solutions*, affords us as much Knowledge as the Nature of the same (for ought I know) may allow, especially that of the *Epidemics*, viz.

“ That



“ That of Fevers of this Sort some proceed  
 “ from a secret and inexplicable Alteration in  
 “ the Air, infecting Men’s Bodies, and not  
 “ depending on any peculiar *Crafts* of the  
 “ Blood and Humours thereof, otherwise  
 “ than that occult Influence has imprinted  
 “ the same upon them. And these continue  
 “ as long as this particular Constitution of  
 “ the *Atmosphere* and no longer.

“ There are others which arise from cer-  
 “ tain Irregularities of particular Bodies, by  
 “ trespassing some Way in one or other of  
 “ the *Non-naturals*: Which being not pro-  
 “ duced by any general Cause, invade not  
 “ promiscuously at the same time, but ap-  
 “ pearing every Year, and at all times of the  
 “ Year, we call them *Intercurrents* or *Spo-*  
 “ *radics*.

“ Whether or no the former of these come  
 “ in any regular Course, or keep within  
 “ the same Circle of Times and Revolutions  
 “ of certain Years, I am not certain: But  
 “ this I know by many Observations, that  
 “ each new *Species* differs from the former,  
 “ and that the same Method which prov’d suc-  
 “ cessful one Year, may prove destructive in



“ another. And farther, that when I once  
“ light upon that Method which this or that  
“ particular *Species* did particularly require,  
“ I scarce ever fail’d of Success during that  
“ particular Constitution, respect being had  
“ to the Age, Temperament, &c. of the sick  
“ Person: Till the old being extinct, some new  
“ *Species* did arise; when I was again doubt-  
“ ful how to steer so as I might not endanger  
“ the Patient; and unless I took great heed,  
“ I could not help but that one or two of  
“ those I first encounter’d, would be in Dan-  
“ ger, till I had found out the *Genus* of the  
“ Disease, when I could go on again readily  
“ to the Cure of the same.

“ But though I have observ’d with as much  
“ Diligence as possibly I could, the divers  
“ Dispositions of divers Years, as to the ma-  
“ nifest Qualities of the *Air*, that from  
“ thence I might learn the Causes of this  
“ great variety of *Epidemics*, yet I have re-  
“ ceived no Benefit thereby. For I have per-  
“ ceiv’d that those Years which did agree as  
“ to those obvious Qualities, were yet infest-  
“ ed with divers different Distempers: And  
“ thus it falls out that there are many of



“ those morbid *Constitutions* of Years, which  
 “ proceed neither from Heat nor Cold, nei-  
 “ ther Moisture nor Drought, but from some  
 “ secret unintelligible Alteration in the Bowels  
 “ of the Earth, whereby the Air about us is  
 “ contaminated with such Particles as dispose  
 “ Mens Bodies to this or that Disease, as long  
 “ as that *Constitution* prevails, which in a cer-  
 “ tain space of Time withdraws, and gives  
 “ way to another: Each being accompany’d  
 “ with a Fever proper and as it were peculiar  
 “ to itself, which is not to be found at any  
 “ other time, and therefore I call these Fe-  
 “ vers by the Name of *Stationary*.

“ Besides these, there are particular *Tem-*  
 “ *peraments* of the same Year, wherein, tho’  
 “ according to those manifest Qualities of the  
 “ Air, those Fevers that follow the general  
 “ *Constitution* of the Year are more or less  
 “ *Epidemical*, or come sooner or later, yet  
 “ chiefly those which appear every Year (and  
 “ which we named *Intercurrents*) owe their  
 “ Rise to this or the other manifest Temper  
 “ of the Air: Such as the *Pleurisy*, *Quinsy*  
 “ and the rest of this Tribe, proceeding com-  
 “ monly from sudden Heat following pre-  
 “ sently



“ fently a severe cold Season. ’Tis therefore,  
“ I say, probable, that these sensible Qualities  
“ may be instrumental in producing those  
“ Fevers which exert themselves in every  
“ Constitution: but not such as are peculiar  
“ to any one Particular. Though we deny  
“ not that the abovementioned Qualities do  
“ more or less dispose Mens Bodies to gene-  
“ rate this or that *epidemic* Disease, which  
“ may be said likewise of any Error in the  
“ fix *Non-naturals*.

“ Again, when any *Constitution* produces  
“ various *Species* of *epidemic Fevers*, we are  
“ to observe that each differs in Kind from  
“ those that have the same Name, but are  
“ under another. Yet how many soever  
“ peculiar *Species* there may be that invade  
“ under one and the same *Constitution*, they  
“ still agree in the same general Cause that  
“ produces them, *viz.* in this or the other  
“ peculiar *Diathefis* of the *Atmosphere*, as also  
“ in their Encrease about the same Time.  
“ Moreover, this must be noted, that in those  
“ Years wherein various *Species* break forth,  
“ they all make an Assault near the same  
“ Time,



“ Time, after the same Manner, and with  
 “ like *Symptoms*, at their first Invasion.

“ Hence it appears, seeing the *Specific* Dif-  
 “ ference of *popular Diseases*, viz. *Fevers*,  
 “ arise from the secret *Constitution* of Years,  
 “ that such Persons labour in vain as go about  
 “ to deduce the Reasons of divers Fevers from  
 “ some morbid Cause reserv'd in the Body :  
 “ Since it is evident that if any Person who  
 “ is very well, travels to some Parts of the  
 “ Kingdom, he will be seized with the Fe-  
 “ ver that rages there : And yet it is scarce  
 “ credible that any manifest Change should  
 “ be impress'd by the Air, as to its obvious  
 “ Qualities in so short a time, upon the Body  
 “ of this Man. Nor is it less difficult to  
 “ accommodate general Rules for the Cure  
 “ of such. Wherefore in so great Uncertain-  
 “ ty, it is surely best to pause a while when any  
 “ new Fever arises, and to proceed gently to  
 “ great Remedies (*meaning doubtless Bleeding,*  
 “ *Purging, Vomiting, Sweating, and the like E-*  
 “ *vacuations*) observing diligently the *Genus* of  
 “ the *Fever*, and likewise those Things that do  
 “ Good or Harm, that we may choose the  
 “ first and avoid the last.

Give



Give me leave now, my good Friend, to acquaint you, that after all these several Distributions, Descriptions, and Definitions of Fevers, were it proper for me to introduce one of my own, they should be principally distinguished, without referring to their Causes, either remote or proximate, as *Sanguineous* and *Nervous*. Not that we are to suppose the Blood in the latter to be unconcern'd, but that together therewith, some deleterious or morbid Impression is also fix'd upon the *fluid* of the *Nerves*, either someway impeding its Secretion at the Fountain Head, the Brain, or its regular Dispence by those Tubes to the Heart, Lungs and other Parts of the *Machine*; hence the Difficulty of Respiration, as well as Circulation to the Blood in general; the *Suspiria*, with Oppression on the *Præcordia*; the low, creeping and intermitting Pulse; the Prostration of Spirits, and Languor that comes on, and suddenly destroys the Sick labouring under the same.

This indeed is the *Febris Mali Moris, ac pessimæ Indolis*, which the common People (*having doubtless been so taught by some of the Faculty*) call Fevers of, or on the Spirits, which



which whether so or not, may possibly serve better to direct the *Regimen*, than that Division aforesaid into *Heſtical*, and *Ardent*.

Under the first, *viz.* the *Sanguineous*, I would have comprehended all of the *inflammatory* Kind, such as are attended with great Effervescence or Ebullition in the Blood, with strong and high Pulse, deep Urine, great Thirst, Inquietude, Vigil, Phrensy, &c. The particular Fevers under which Appellation, are those which accompany the *Quinsy*, *Peripneumony*, *Pleurisy*, and all such as are attended with, or have adjoined to them, either a general or particular *Plethora* of the Vessels, or excessive Rarification of their Contents.

Among the *Eruptives*, under the same, I should reckon the *Small Pox*, *Measles* and *Scarlet Fever*; whilst some others of the *Rashy*, *Miliary*, but especially the *Petechial*, as having the Symptoms just before enumerated, some or other of them attending, should be placed under the *Nervous*. And the *Intermittent* may stand *Neuter*, if truly such, at least distinguishable only as *primary* and *secondary*: By the first understanding the common *Ague*; by the last, the *Synochus* or any other *continent* Fever,



*Fever*, after some Days, taking the Type of in *Intermittent*, either *quotidian* or *tertian*; which being duly form'd, admits of the same Cure with the *Ague* itself.

I have now done with the several *Definitions* and *Divisions* of Fevers which I found nigh at Hand, and will hasten to the Cure, presenting you first with an Essay towards the same, in the *mechanical* Way, from a Gentleman I have already often quoted, the learned *Pitcairn* \*.

‘ First, it is manifest, that the Cure of e-  
 ‘ very *legitimate* Fever, accompany’d by no  
 ‘ others, is most expeditiously done by Bleed-  
 ‘ ing, and by Remedies that abate the Blood’s  
 ‘ Rarification; such as Sugar of Lead, purify’d  
 ‘ Niter, Spirit of Sulphur, Juice of Lemons,  
 ‘ distill’d Vinegar, Emulsions of the cold  
 ‘ Seeds, and more especially Blisters, which  
 ‘ draw off part of the Serum too much rari-  
 ‘ fy’d; and these are the Remedies to be used  
 ‘ in every *legitimate* Fever, till we have the  
 ‘ good luck to find out one, that will imme-  
 ‘ diately abate the Blood’s Rarification, and

\* Elements of Physick.



‘ diminish its circular Motion, without bringing on worse Symptoms.

‘ Secondly, you are carefully to observe that you do not easily administer *Sudorifics* in these Fevers, because they will keep up the augmented *Velocity* and *Rarification* much longer, and we ought never to prescribe such, but when there are Signs of *Concoction* (which before were not) in the Urine: And such Signs will denote it not to be a *legitimate* Fever in every respect, but a Companion to some other Disease, which arises from a Viscidity of Humours capable of *Concoction*.

‘ And thirdly, when this *Viscidty* begins to be so broken, as to be capable of Separation in the Kidneys with the Serum, it is a Sign of a *Concoction*: And when the same Matter, which can pass the *Renal Streiners*, by a farther Diminution, is render’d fit to be carry’d through the *cutaneous Glands* in Sweat, then, and not before, *Sudorifics* may be administer’d with Safety; which Time may be discover’d by the Signs of *Concoction* in the Urine, which is a Sediment equal and copious, with re-

L

gard,



‘ gard to the Disease: And thus much of  
‘ the *legitimate* or simple Fevers and their  
‘ Cures.

‘ But Fourthly, the Cure of a *continued*  
‘ *periodic Fever*, cannot be well understood,  
‘ without being first taught the Cure of *In-*  
‘ *termittents*, as such; because the Cure of  
‘ *Periodics* is compounded of the Cure of a  
‘ *simple Fever*, and an *intermittent*, as such,  
‘ respectively.

‘ Therefore unless old Age, or a worn out  
‘ Constitution forbids, at the longest Di-  
‘ stance from a subsequent Fit, in an *Inter-*  
‘ *mittent*, a Vein ought to be open’d; both  
‘ on the Account of the *Fever*, which threa-  
‘ tens when the Fit is at the highest, and  
‘ upon Account of the *Viscidities* from whence  
‘ it has its Origin; for Bleeding diminishes  
‘ the *Viscidities* of the remaining Mass.

‘ And Lastly, since this *Viscosity*, for the  
‘ most part has its rise from what is taken in  
‘ by way of Diet, and the *Lentor* is de-  
‘ riv’d from the first Passages: And because  
‘ *Vomits* more effectually remove such *Lentor*  
‘ than *Purges*, and by the necessarily greater  
‘ and more frequent Contraction of the Sto-  
‘ mach



‘ mach and Abdomen, press out that *Lentor*,  
 ‘ which adheres to the small Vessels, in a  
 ‘ short time, which *Purges* would hardly  
 ‘ reach in an Age, and because Delays are  
 ‘ dangerous in a Fever; therefore a *Vomit*  
 ‘ ought always to be timely enough given,  
 ‘ for its Operation to be over before the re-  
 ‘ turn of the Fit; which may be repeated  
 ‘ once, and sometimes twice, at due Distance,  
 ‘ if the Patient is able to bear it, and is not  
 ‘ subject to vomit up, or spit Blood.

‘ When the vomiting is over, some *febri-*  
 ‘ *fuge* Medicines are to be given, (though im-  
 ‘ properly so call’d) and which ought rather  
 ‘ to be term’d *attenuating* or *aperient*, of  
 ‘ which generally the *Bitters* are esteem’d the  
 ‘ best; among these however the *Cortex Pe-*  
 ‘ *ruvianus* is yet much the more preferable.’

After this *Specimen* in the *mechanical* Way,  
 I shall proceed to my own Method, and that  
 I may observe some order therein, pursuing  
 the Division of Fevers into *sanguineous* and  
*nervous*, shall begin with the former or *Inflam-*  
*matory*, in which through an extraordinary  
 Heat and Rarification thereof, the Blood is  
 thrown with Violence on some particular



Parts, either external or internal ; giving Rise, as we have formerly observ'd, to a peculiar Epithet, thence borrowed, *viz.* *Anginalis*, *Pleuritica*, &c. as a Note of Propriety, or belonging to the same ; and here before I proceed farther, give me leave to entertain you for a minute or two, with the Opinion of a late Author \* concerning the Nature of an *Inflammation* in general : With which for its Novelty and Force of Persuasion, being myself well pleased, it may not perhaps be unacceptable to you, my Friend, if yet unacquainted therewith, *i. e.* his new Distinction of the *lymphatic Vessels*, into *Arteries* and *Veins* ; the former delivering (like the Arteries the Blood) their Liquor to all the Parts : The latter (in like manner as the Veins) carrying it back to the Cistern or Fountain ; the rise of which Vessels, we have already given you from the same Author, when speaking in our former, of the Nature of *Secretion*, with the *Modus* of discerning the several Fluids from the Blood.

\* *Helvetius* in his Essay on the *Animal Oeconomy*.



‘ Anatomy (as he tells us) confirms this  
 ‘ Notion, which tho’ it shews only the most  
 ‘ considerable of these Vessels, and is not  
 ‘ able to distinguish the greater Part, too  
 ‘ minute and intricate to be plainly discern’d,  
 ‘ as in their natural State, carrying only a  
 ‘ thin translucent Liquor, nevertheless do but  
 ‘ observe the numberless small Vessels, In-  
 ‘ jections offer to our View: Consider they  
 ‘ neither appear Red, nor are full of Blood  
 ‘ during the Life of the Animal, unless by  
 ‘ Accident, or under an inflamed State; and  
 ‘ then we shall easily perceive, that they can  
 ‘ be nothing in reality but *lymphatic* Vessels,  
 ‘ tho’ by most Anatomists, appropriated to  
 ‘ the Blood.

‘ It will not therefore be improper to ob-  
 ‘ serve by the Way, that these fine Injections  
 ‘ do often serve rather to lead us into Error;  
 ‘ and are more for Ostentation than Instruc-  
 ‘ tion and Use. They may indeed guide us  
 ‘ to more important Discoveries, but they  
 ‘ are also capable of hiding a great many  
 ‘ Truths from us, and of stifling several Dis-  
 ‘ coveries: The Confusion into which they  
 ‘ throw the *sanguinary* and *lymphatic* Vessels,



‘ frequently hinder us from distinguishing  
‘ them with the necessary Exactness.

‘ In their natural State, these *lymphatic*  
‘ Vessels cannot admit the Blood, because  
‘ where they commence, they are too slender;  
‘ or rather because the *Lympha* which they  
‘ contain, is a Fluid wholly differing in its  
‘ constituent Parts, from the *Globules* of the  
‘ Blood; and indeed, tho’ it circulates in  
‘ the Blood Vessels, along with those *Glo-*  
‘ *bules*, yet does it never perfectly mix with  
‘ them, as is seen by the help of Glasses, in  
‘ the *Mesentery* of the Frog, or in the *Fins*  
‘ and *Tails* of certain Fish; but when the  
‘ *lymphatic* Arteries happen to be dilated, or  
‘ the Blood put into any violent Motion, it  
‘ does sometimes open itself a Passage into  
‘ them, as in the Case of every Inflammation  
‘ falls out; for then the Force is greater than  
‘ the Resistance either of the *lymphatic* Vessel  
‘ itself, or the Fluid it contains, as in the  
‘ Case of *Fevers*, where sometimes the Rari-  
‘ faction of the Blood is so great, as very  
‘ much to dilate its own Vessels: The  
‘ *Lympha* in like manner will be rarify’d,  
‘ and its Vessels dilate either through the  
‘ Rari-



‘ Rarification of their own Liquor, or by  
 ‘ means of the Dilatation of the Blood Vef-  
 ‘ sels, which being distended will necessarily  
 ‘ enlarge the Orifices of the other, which are  
 ‘ connected to them.

‘ When the Blood then at such Times  
 ‘ (i. e. *the Patient in a Fever*) is forced in-  
 ‘ to the *lymphatic* Arteries, from whatever  
 ‘ Cause; no wonder it should stagnate, and  
 ‘ stretch these tender Vessels, whence Red-  
 ‘ ness, Pain and Tension, with great Heat  
 ‘ about them; the first is occasion’d by the  
 ‘ Blood got into these Parts, which before  
 ‘ looked white, as carrying in them a thin  
 ‘ transparent Liquor: It must require a  
 ‘ greater degree of Heat, since the Blood in  
 ‘ this Case fills a greater number of Vessels,  
 ‘ and in greater Quantity than it did before:  
 ‘ The Pain arises not only from a stretch of  
 ‘ the Vessels themselves, but of the nervous  
 ‘ Membranes betwixt which they are placed.  
 Finally to confirm this his Opinion, or by  
 way of farther illustrating the same, he  
 brings an Instance of the common *Ophthalmy*,  
 or *Bloodshed Eye*.

L 4 ‘ The



‘ The Redness or Inflammation of the  
‘ Eye, is here caused by the Blood having  
‘ passed out of its own, into the *lymphatic*  
‘ Vessels, belonging to the Part; whence we  
‘ infer, the same of all the other *lymphatic*  
‘ Arteries from the capillary Blood Vessels,  
‘ which are distributed in great Plenty  
‘ through all parts of the Body; the Case  
‘ being the same in every *Inflammation* of all  
‘ the other Parts, which is occasion’d by the  
‘ Blood’s flowing into the *lymphatic* Arteries  
‘ of such Parts, as observed now, of the Eye,  
‘ and as we see happen, even without reflec-  
‘ tion, in the *lymphatic* Vessels of the Skin,  
‘ when by any means, some unwonted *Effer-*  
‘ *vescence* appears thereon, as in sudden Flush-  
‘ ings or the like.’

The Reason why these Vessels are destitute of Motion, he tells us, is because they are out of the Force of the Heart, in like manner as are the Veins.

To detain you now no longer, I shall hasten to the *Regimen* of these Fevers in general: And as *Plenitude* of the Vessels from some *Crapula*, or obstructed Perspiration, for the most part, gives Being to the same, at least



least the Blood's being too much rarify'd therein; so a *Depletion* of them by Bleeding, as the Strength will allow, together with other suitable cooling Remedies, which the Case shall require, are here indicated: After which the setting open the Pores by a Draught of some thin dilating Liquor or other gentle Remedy may be farther useful.

The Signs of this *Inflammation* or *Plethora* in the Vessels, you are to take from the Patient's Habit, frequently *sanguine*, with a florid Complexion: His way of living, with the antecedent Cause of the Ferment stirred up in his Blood, the inflamed Urine and high Pulse, the tensive Pain in the Head and other parts of the Body: But here you are to note, that oftentimes through a meer Fulness of the Vessels, in this kind of Fever, the Pulse will be oppress'd, and the Stroke seem feeble, or from the excessive Rarification of the Blood, as it were stifled, which after Ventilation by the Lancet, recovers itself and beats strong and high.

In drawing off a sufficient Quantity of Blood, altho' the same appears florid at the first, yet if Pains upon the Membranes accompany,



company, as in *pleuritic*, and *rheumatic* Affections, you will find it after *sizy*, or like melted Fat, streaked oftentimes with a yellow or blewish Cast at the top; and this hint about the Pulse, I thought convenient to give you, that you may not be discourag'd, by the lowness thereof at such Times, and in those *plethorick* Habits, to bleed your Patient, especially at the first Attack of the *Fever*, before his Strength has been thereby impair'd, which in the *State*, much less at the *Declension*, cannot be so safely enterprised.

After Bleeding, repeated as you see Cause, if a Debauch either in Eating or Drinking gave occasion to the Disease; or otherwise, if any loathing or retching so require, a Vomit ought to be administer'd of the *Rad. Ipecocuban* given in Sack Whey, Carduus or green Tea, or Chicken Water, as your Patient shall like best; which being over, he is to be put into his Bed, with the same covering he has been us'd to; and now for his Thirst, let him be indulged in the same thin Liquor, particularly the Whey, or an Emulsion of the cold Seeds and Almonds in Barley Water, likewise the antient *Ptisan*: Nor  
would



would I be so rigorous as at all Times to forbid a Draught of Table-Beer with a Toast, between whiles, provided no rheumatick Pains, *Cholic* or *Dirrhæa*, attended; for this being our common *Diluter* in the Time of Health, or what we have been ever accus-  
tom'd to, is not always to be denied in Sick-  
ness, when desired, under the Restrictions a-  
bovementioned.

I must insist upon this Method of giving a Vomit, such as here directed, at these times, after bleeding your Patient; because I know of nothing so likely to draw off the Fuel, and thereby lessen the Fever, let the Nature thereof be almost what it will. You may trespass indeed, in bleeding, but I think, you cannot in this particular Evacuation, if the Sick is not subject to a Spitting of Blood, in any Stage thereof, where a *Nausea* shall indicate, and the Dose of the said Remedy is suited to his Weakness, of which thus given, where such call for it appear'd, even under the greatest, I cannot say that I have once repented.

The Vomiting being over, if the Fever still runs high, or seems to threaten the Head by



a too rapid Course thereof, you may venture to take away more Blood, if the Strength admits after which, the Sick being uneasy, where something farther is not done to remove his Complaint, and (as he thinks) to shorten his Disease, you are to give some *Alexipharmic Bole* or *Powder*, wash'd down with a *cordial* Julep between whiles.

But here, that you may rightly understand me, I must explain myself what I mean by this *Alexipharmic*, and what by my *Cordial*. First then, negatively, I mean none of those jumbled Compositions of the Shops, the *Theriac* & *Mithridatum*, which are now so far from deserving that Title, that they may rather be termed *Pharmaca*, as implying in the worst Sense of the Word, *Poisons*, and which I am afraid, through their indiscriminate Use, have carried off more People than all the Plagues we ever had in *England*: Nor by the Word *Cordial*, would I be understood the *Treacle-Water*, or any other distill'd Compound, much less the *Tincture* and *Syrup* of *Saffron*; for tho' both these are allowable in some of the *nervous Fevers*, so called, especially towards the Declension, when Na-



ture flags, and the Spirits are unable to expand themselves, the Pulse grows feeble, together with the native Heat: Yet at these Times, or in our present Case, a Morfel of the *Conserva Lujulæ*, with a few Grains of *Niter* is the best *Alexipharmic*, as a Draught of an *Emulsion ex Sem. Fr. cum Amygd. in aq. Hordei*, the only *Cordial*.

These may be given at a due Distance, till the Ebullition of the Blood is over, or that the Pulse is reduc'd to its wonted Tenure, before which a moderate breathing Sweat usually appears, the Urine also together therewith, forboding a *Crisis* now at hand, from its intense Colour turns paler, drops a Sediment, and the Sick recovers; when it may be necessary to give some lenient Purgative, that without raising a Commotion in the Humours of the Blood, may discharge the morbid Feculencies therein remaining; nor must you all the time forget to empty the Bowels daily, or each other Day, of the intestinal Fæces, by some cooling laxative Clyster, if they do not answer of themselves.

This Regimen will serve in common for all Fevers, attended with great Heat and *Inflammation*,



*flammation*, or which may be termed *sanguineous*, as those of the *Angina*, *Peripneumony*, *Pleurisy*, *Rheumatism*, saving that these usually require more frequent Bleeding, and in larger Quantities, wherein truly the whole curative Scope in a Manner consists, especially that of the *Pleurisy* and *Quinsy*; but in the true *Peripneumony*, the Oyls and expectorating Remedies are also to be prescribed, as peculiar to the same.

I have purposely forborn the Mention of *Blisters*, not only for that I cannot come into them myself, so readily, as is now the Mode among us, in every of these Fevers without Exceptions, unless in some of those just now mentioned; except some obstinate Head-ach or Stupidity encourage their Application; but for that, I intend presently to give you my own, with the Sentiments of some others, about them. Nor can I see Reason to alter this *Regimen* in some *eruptive Fevers*, of the *inflammatory* Kind, I mean particularly the *Small-Pox*, especially in full or sanguine Habits, of the *coherent* or *confluent* Sort, setting aside the repeated Bleedings, which too may be requir'd from an over-bearing Heat, as well



well before the Time of Eruption, as at that of the *second Fever*, attended with Phrensie and streight breathing, as also the clystering and purging, before the State of Maturation.

And this is all I have to offer for your general Observation concerning the Fevers of this Class: For as I intended not to give any particular *Formulae*, or to stuff my Letter with *Præscripts*, so neither is there Occasion for what every Physick-Writer rather too much abounds with, and with which you are already very well furnish'd: To be plain indeed herein, tho' I scarce know any Physician who is ignorant of one Remedy or other, to answer the several *physical Intentions*, yet perhaps it may not be so easy to find those who are rightly appris'd at all Times, when this or that *Intention* are the true *Indicata*, or require to be answer'd.

To the same purpose, is that excellent Remark of Dr. Sydenham \*, viz. ' That the true  
' Practice of Physick consists chiefly in being  
' able to find out the genuine *Indications* of  
' each Disease, when none will be at a Loss

\* In his Preface to his Book of acute Diseases.



‘ to find *Remedies* that may answer each.  
‘ And truly he that is more taken up about  
‘ these *Remedies* than tracing out those *Indi-*  
‘ *cations*, is only instructing *Empirics* how  
‘ to ape the *Physician*.

One of the best Authors upon this Subject, if we except the learned Dr. *Freind*, and our Friend *Sydenham*, is a very antient one, but lately reviv’d among us, by Recommendation of the former, I mean *Lommius*, whose Treatise is worthy your perusal.

This honest Writer set forth his Book of *continual Fevers* in the Latin Tongue (in which the same is now reprinted) above 150 Years past, wherein you will find, without one *R*, he places the Cure of these Fevers in *Bleeding*, *Dilution* and *lenient Purgation*; neither the first nor last, however, to be enterpriz’d, but with Regard to the Strength of the Patient, evinced by that of the Pulse, and the Time which is the Beginning of the Invasion, for bleeding; as that of the Declension of the Disease, for *purging*; the untimely Use of both, as he judiciously remarks, having been the Death of some, as the heaping up of Medicines, has been of more; especially



cially those by which Nature has been somehow interrupted, or put aside the Work she had began, and, perhaps, otherwise completed.

About the *State* or *Time* of *Concoction*, he takes Notice of the *Fons frigida*, a large Draught from whence he now thinks proper to give the sick Person, by the Example of *Galen*: Whence, he says, the Heat being driven outwards, either a *critical Sweat* follows, if not *Vomiting*, or else a *bilious Flux*; so uncertain, it seems, stands the Issue of this Experiment, which is to finish the Disease and restore Health: But then observe, he exceedingly blames those who, upon any Pretence whatever, shall dare to administer this Remedy at any Time of the Fever, which was the Custom of *Avicen*, and has been lately inculcated among our People, by a crack-brain'd Divine, in his *Febrifugum Magnum*; in respect to which you may consult some Remarks lately publish'd, as an Appendix to the *Modern Quack*, by Way of Answer to this extravagant Advance; I must own, indeed, I think it so hazardous an Experiment, that I cannot advise you should try



it at any Time ; for if the Evacuations should not follow or prove critical, as unseasonably administred, before Nature was prepared, when the Strength is much enfeebled, and she unable to rouse up, and discharge her now double Burthen of the *Disease*, and the intended *Remedy*, by one or other of the Ways here specified, what must ensue but Suffocation of the vital Heat, and the absolute Destruction of the Patient ?

But I shall now give you my Thoughts about the *Regimen* of the Fevers I call *Nervous*, and which (as the Pulse must direct you) is, generally speaking, to be different from the foregoing ; for here no Evacuations, unless those of *Vomiting*, *Sweating*, and *Blistering*, are to be admitted. When contrary also to the former, being still guided thereby, as the Pulse is weak, and the Patient complaining of great Langour or Lowness of Spirits, so the warmer Remedies will be sometimes required to raise the same, to invigorate the Blood, and quicken its Motion ; of which Kind are the *Lapis Contrayerva*, the *Pulv. ad Guttet.* the *Pulv. e chel. Canc.* C. with a few Grains of *Crocus* or *Castor* ;  
or



or where this last is nauseated by the weak Stomach, the *Spec. Diamb.*: And when by these Means, together with the diluting Liquors, a seasonable Sweat breaks out, I always allow my Patient under great Languor, a Glass of some soft agreeable Wine, such as that of *Sherry*, once, if not oftener, in twenty four Hours, instead of a *Cordial*: Nor can I see Reason to forbid the same, at these Times, any more than the *Pearl Julep* so customarily taken.

And having here made mention of the *Bezoardic* Composition, or the *Pulvis Gasconicus*, I can do no less than advocate in its Favour, so far as to believe it the best Remedy (considering how the Practice of Physick is manag'd with us) that ever could have been invented.

The worst I have heard objected against it, is, that of its being a chargeable, insignificant, or mere *absorbent*, and that but an indifferent one, in Comparison of some viler we trample daily under our Feet; and farther that we trifle while we use it.

I wish I could say no worse of our *Treacles* and *Mithridate*, with some others, daily in



Use: For since the most knowing among us can understand very little of the real Essence of these *Fevers*, or fathom the several Processes of Nature, in attempting her Rescue from the same; which of us can be at all Times positive, he has not some Way hindred, as well as promoted her imperceptible and inscrutable Way of working this Deliverance?

Happy, my dear Friend, shall we be at the long run, if we can accuse ourselves of nothing more than a harmless trifling at these Times: Happy, I say, if under any Dilemma, we have that inward Peace and Satisfaction, that we do no Mischief. How this can be the Lot of such as are forcing Fire-Balls down Mens Throats, of *Theriac. Mithridate, Camphir. Snake-Root*, with those Creatures thereof, the *volatile* and *fix'd Salts*, and these every three or four Hours, wash'd down with as hot a Mixture of some Spirits, which they call a *Cordial*, at a Time when the Sick are scorch'd, as I may say, to Death; Witness the dry and parch'd Skin, the black and brushy Tongue, the crusty Fur upon the Teeth, and other Signals of an *Incendium* within:



in: How these, I say, can have that inward Assurance that they never do worse than trifle; or that instead thereof, they have not actually destroy'd those Lives with which they were intrusted, I cannot see, nor I think any considerate Person whatever.

If then, upon this Occasion, it must be said we trifle, because, perhaps, we give no Medicines at some Times, or none but what are safe and innocent; thus trifled our great Master *Hippocrates*, who, tho' constant in observing, gave but few, or for some Days none at all, till he could see what Nature call'd for, and the Method which she aim'd at for helping of herself: And thus trifled our late famous *Sydenham*, who tells us, that finding his Patient one Day no worse than the Day before, and the Day following in the same Condition, thought it his Duty still to wait her Motion, fearing, by intermeddling, he should do some Hurt, till Dame Nature shew'd him what Way he was to take, by some more manifest Indication than he was yet Master of, or what kind of Remedy she stood in need of.



‘ I am not ashamed (saith he) to own that  
‘ more than once I have advised best for  
‘ my self and Patient, in doing nothing,  
‘ when it was not plain to me what ought  
‘ to be done: For whilst I was thus lying  
‘ by, and waiting for an Opportunity, the  
‘ Fever either went off gradually of itself,  
‘ or was reduced to such a Type, as I knew  
‘ how to cure it. But it is a sad Thing that  
‘ most of the Sick will not understand that  
‘ it is as much the Part of a skillful Physician  
‘ at some times to do nothing, as at others to  
‘ give the most effectual Remedies, by which  
‘ they deny themselves the Benefit of a just  
‘ and fair Proceeding: Accounting this the  
‘ Effect either of Negligence or want of  
‘ Judgment; little considering that the most  
‘ ignorant *Quack* knows how to heap one  
‘ Medicine upon another, as well as the most  
‘ judicious and skillful Physician.

Returning now to the *Bezoar*, which a  
learned Gentleman \* so much decries, and  
endeavours to depreciate; I must advise you,  
notwithstanding, to entertain a good Opinion

\* *Dr. Stare* in his *Observation and Experiment upon Bezoar*:

thereof,



thereof, either by itself or in the *compound Powder of Crab's Claws*, in which the same is an Ingredient; and where your Patient can pay for it, I would never have it now omitted in your Prescription, at least, that you make it a Part thereof; by which I think I may ensure you this one Advantage, that no Physician, besides the last mention'd, who shall chance to be call'd in upon you, will say you have done amiss; or, if he be a Person of any Candour, find fault for your so doing, which I cannot promise shall not happen, at our present low Ebb of Honour, under any other.

The late learned Dr. *Edward Tyson* had a great Opinion of the *Bezoar*, who was no superstitious Physician, nor regarded traditionary Accounts of the Virtues of any Drug or Medicine, that was not confirm'd to him by Experiment or Observation: I have heard him say, when I had little Experience of it myself, that he was satisfied of its cordial Virtue, from many Instances, but in none more remarkably than in a very antient Alderman of *London*, Father, in his Time, (as usually termed) of the City, and President of



*Bridewell*, the famous Sir Robert Jefferys, who being through Age meerly, and a Defect of natural Heat, seized with a Mortification on his Toes, took half a Dram of the *Eastern Bezoar*, in the Manner some Gentlemen now give the *Cortex* every four Hours, which gave him (as he express'd himself) new Life and Spirits: Infomuch that after few Days, the Mortification stop'd, and the dead Parts being removed, his Lease of Life was farther lengthen'd: And farther that it had this Property beyond most other cordial Remedies so denominated, of being agreeable to Nature, and to the weakest Stomach, which cannot, indeed, be said of some others, (as in particular the *Cortex*) that it fired not the Blood, (tho' a kindly *Sudorific*) by exagitating its Mass, and causing a Perturbation among the Humours therein; of all which I am long since fully satisfy'd, by Experiment upon myself.

And it will be surely time enough to discard this friendly and most innocent Remedy, when we have a Substitute that will do more Service and less Hurt: The Chalk, nor yet the caustic Salt, which the same Person, who  
finds



finds fault with *Bezoar*, recommends, are doubtless none of these; the first, however a great *Alkaly* or *Absorbent*, being so far from a *Diaphoretic*, as he would insinuate, that we have few better *Anti-sudorificks*, or which will do more in repressing the melting Sweats of *Hecticks*, binding up the loose Texture of the Blood, and preventing its farther Diffolution; and the last, tho' suited to take off the symptomatic Vomiting in Fevers, and to stop the Progress of some *Intermittents*; yet where there is a Tendency to Stools, not safe to be given, since by pricking the Fibres of the Stomach, it will increase the Looseness, and that way endanger the feeble Patient.

But I shall enlarge no farther in the Commendation of this most safe, and often serviceable Remedy; since all the Rhetoric its Opponent has used, with the sugar'd Words to sweeten up the Ladies \*, they still hold it, with the much greater part of the Faculty, in as good Esteem as ever.

There is another Composition coming now into Request, upon the same Occasion,

\* See *ibid.* His Vindication of Sugars dedicated to the Ladies.



wherein *Bezoar* has a share also, with some of the other *Aborbents*, and which I advise you should at these times make a part of your Prescription, that is the *Confectio Raleighana*, of great Repute long since in private Practice, and now recommended to the College, from the good Opinion a leading Gentleman therein has conceiv'd thereof; and which others I think should the rather entertain, if it were upon no other Account, than that of its being more temperate and agreeable to the Sick in general, than many others going under the Name of *Alexipharmicks*, which are commonly prescribed.

These Fevers having run on some Days, do frequently intermit: The *Συνοχὸς* turning, as we have noticed before, to a *Συνοχὴς*: As a Presage of which the Urine now shews some tendency to Concoction, and from a crude, becomes first turbid, afterwards letting fall a lateritious Sediment, a Sweat breaks forth, and the Symptoms grow milder.

In this Case, it will behove you to wait the Circuit of a second *Paroxysm*, which being fram'd in such manner, that you can be assur'd of the Intermision, you may then,  
but



but not sooner, administer the *Cortex*, giving it at such Distance, and in such Quantity, that your Patient, if possible, may take four or five Drams, before the approach of the next Fit; as if the Interval exceed not ten or twelve Hours, you are to order ℥ij. at least, if not 3j, where the Sick can bear it, every two Hours, but if the same is longer, once in three or four: Observing diligently that you begin not before the hot Fit is over, and the Sweat breaks forth; that you are also as cautious in prescribing it where you have not Encouragement from the said *Hypostasis* in the Urine, or that the Intermiſſion is irregular and uncertain; for whilst the former is crude and unconcocted, you can hope for little Benefit by the Bark, and as little room to give it under dodging Intervals.

We have, I know, some Gentlemen among us, and those of Note too, I could name, who are very early, I fear sometimes overhasty, in giving of this Drug before the Fever Fit is form'd, or that they can have Satisfaction, there is more than *Remission* and *Exacerbation* thereof; and this altho' the Breast is straitned, the Breathing anhelous,  
with



with other the Symptoms of an Eruptive Fever little favouring its Exhibition; for which they alledge the Danger by Delay, of missing an Opportunity for giving it at all afterwards.

But truly, Sir, I have seen so many Mis-carriages, which I could impute to nothing more than the unseasonable use thereof, such as *Coma*, *Delirium*, Oppression on the *Præcordia*, tremulous Nerves and subsultory Tendons, with encrease of all the Symptoms; that being therefore deter'd myself, I would caution you against an over-forwardness, or till you are satisfy'd, the pretended Shiver was other than some nervous Rigour, the Heat, a simple Exacerbation, the Sweat symptomatical, and the Respite a short and simple Remission only.

I must acknowledge, under this Difficulty I have been sometimes concern'd, that I have not comply'd with the Importunity of others, for their Satisfaction I think, rather than my own, in giving this Remedy; but I have been much oftner pleas'd, that I did delay it, where quickly after I had reason to believe, it would have proved fatal to the  
Sick;



Sick; and I think I may say, it has been seldom, if ever, that I repented on my own Part, not giving it, till I was convinc'd by a second Circuit of the Fever, that the *Type* was form'd to justify the same.

As a farther Security to my Patient, under these Doubts, and at such Times, I always apply Blisters, if there be room for them, or those laid on before, have ceased their Discharge; as behind the Ears, extending to the sides of the Neck, the Arms and Legs: The opening whereof will be a great Security to the nervous System in general, and to obviate the Symptoms thence arising.

Among these Fevers, there is none we more frequently meet with, or which carries with it a worse Aspect, even in the beginning, than that attended with a languid Pulse, Oppression on the Breast, and an Appearance of a faint Rash or marbling thereon coming forth, and presently retiring in again, a ferretty Eye, with a confused Aspect, like one amazed: Soon after the Tongue grows black, and feels scabrous, yet without Thirst; and in few Days more, the Patient falters in his Speech, a crusty black Furr adheres to his  
Teeth,



Teeth, he makes a bilious, and sometimes pale, Straw-colour'd Urine, takes no Notice of any Thing about him, but lies as it were in a neutral State, neither dead, nor scarce alive.

In this Case, I have been sometimes at a Stand, and doubtful what Method I should take, by which my Patient might be least endanger'd; for tho' the dry Tongue, the furred Teeth, and the parched *Fauces*, give the Signal of great Heat within, and seem therefore to indicate a cooling *Regimen*; yet the low and creeping Pulse, the chill and clammy Sweat about the Head and Face, the great Faintness and sinking of the Spirits, require seemingly the warmer Medicines.

Upon which Account, that I may proceed with the greater Security, I usually treat the Sick under such Prædicaments, as I observe our best Writers upon that Subject, did the *Pestilential*: Neither with *Theriaca*, nor yet *Mithridatium*, much less the *Egg Electuary*, and the *serpentry Root*: But the *Conf. Lujulæ* and *Lap. Contrayer.* adding thereto at some times a few Grains of Nitre, or when



subject to *Deliquium*, Saffron, in a small Draught of the *aq. Lact. Alex. & Theriacalis*, edulcorated *cum Syr. Limon. vel e Cort, Citri*, or in place of this, I give ʒij. of *Raleigh's Confect.* with as much of the *Pulv. e chel. Chanc. C.* made into a Draught, with the same Cordial Waters, or a Bole with either of the Syrups, which I repeat once in six Hours, shifting the *Epispastic* from one Place to another, as the preceding are drying up.

But alas! how few under these Circumstances can we retrieve, either by this or any other *Regimen* whether hot or cold, in Comparison of those who sink, a little farther Conversation with them who are thus seized, will convince you.

There is indeed a great Oversight, of which our common People are guilty, which is, that the Fever not burning out like the *sanguineous* or *inflammatory* Species, they are less careful to keep from the cold Air, till their listlessness to Action, insensibly, as it were, stealing upon them, they are unable longer to get abroad, yet will still be moving about House, or sitting by the Fire side, complain-  
ing



ing they are giddy, faint and sick, for which some have inadvertently both purged and bled, in the usual Form of their other Disorders; but think themselves not bad enough to be confin'd to the Bed, or send for the Physician.

And here I must remark of Dr. Sydenham, that he was surely less heedful than so prudent a Man could have been expected, in not sufficiently distinguishing these Fevers from the common *Inflammatory*, advising the Patient to be kept out of Bed, forbidding even the most temperate *Alexipharmicks*, and imputing the *Malignity* of the Fever itself, to those Remedies.

Many Scores of these People I have found after several Days Illness, in their Cloaths, crying out of extraordinary Faintness, with a scarce perceptible Pulse, and that often intermitting; when opening the Breast, I have discover'd a sort of pale marbling in the Skin, or a faint rashy Appearance, by which, and the exceeding Languor attending, the Case now appear'd in a manner desperate; and the Medicines which at the first onset, with timely taking to the Bed, might have proved



successful, are at this time directed to little Purpose.

To this eruptive of the nervous Kind, belong the *Rubeolæ*, or the red circular Spots, *instar Morsum Pulicum*, saving that the Mark of the *Proboscis*, in the Center, is here wanting: They are sometimes of a deep red, at others pale or pink coloured; also the *Miliary*, the large *Pustulous* and the *Petechial*: By these last, you are to understand those brown, purple, and sometimes livid Spots, frequently complicate with the worst kind of the Small Pox, or attending other malignant Fevers; in which there appears a gangrenous Disposition of the Blood, these are much less in their Circumference than the *Rubeolæ*, seldom exceeding that of a large Pin's Head, tho' both lie even with the Surface of the Skin.

As for those we call *Crystallines*, I do not take them so much for Harbingers of Danger, as denoting a *Lympha* which is tenacious, and not fitted to perspire, is detain'd by the *Cuticle*, in its excretory Ductus's arising from the *sudoriferous Glands*, or those which compose the *Papillæ Pyramidales*; and as



the same in cold Weather, where a Person thrusting up his Sleeve suddenly, and exposing his Arm to the ambient Air, represent those in a deplum'd Fowl: So when by violent Exercise, or a more than usual covering of Bed-Cloaths, the same Person is thrown into a sudden Sweat, the ferous Humour stop'd herein, and unable by its Consistence to pass through, appears in these *Hydatids* or *guttulæ Crystallinæ*, with less danger or ill Symptom, when they are by themselves; tho' they are frequently interspers'd with the miliary Eruptions, from which they are easily distinguish'd by their diaphanous or translucent Appearance: These last having small red Bases and white Heads, and which, like the *Variolæ*, undergoing their several States of Crudity and Concoction, the Matter being first ferous, and then ripening, the Heads crumble off by the least touch of the Finger.

Sir D——d H——n, (whom I always thought better qualify'd for the Chirurgical Operation of Deliveries than the medical Province of Prescription) wrote a Treatise some Years past professedly upon this Fever, which about that Time was very popular: Whose  
Cause



Cause he imputes to the great Serosity and acid Acrimony of the Blood and nervous Juice. But his *Rationale*, like that of many others, is very deficient, his Arguments unsatisfactory and inconclusive: His Cases every where demonstrating too great an Opinion of his own Abilities, and too mean of those of other Gentlemen who happen'd to be call'd in upon him; upon whose deviation from his own form or variation of Prescription, you will find him always laying the Blame, where the Patient deceas'd, as on some Mismanagement otherwise before he was consulted, if the same Misfortune ensu'd, and he stood singly by himself. So that tho' his History of this Fever may afford you some Entertainment, I doubt it will leave you as much in the Dark as it did myself, in regard to the real Nature or Essence thereof, or its peculiar and specific Difference, as I may say, from some other *Eruptives*.

Between the *Miliary* and the Small Pox, there is a sort of intermediate Pustle, attending frequently upon these *nervous Fevers*, and which denotes them to be *Mali Moris*. It keeps out for some Days, and then dies away



like the rest, not disappearing, and again returning, as do the marbly Appearance and *Rubeola rotunda*, from both which it differs, as it does indeed from most of the rest, in a troublesome itching; and wherever this Disturbance goes along with an Eruption, excepting that of the Small Pox, I have observed there is less Danger, than where the Patient is altogether insensible thereof.

If we enquire now after the Nature, and Manner of these Eruptions, we shall find, that as in some others, of her *Phænomena* (whatever some vain Philosophers may boast) *Nature* has kept them as a Secret to herself, and all our *Mathematizing* or *Mechanizing* either, is but poor Conjecture, or jejune Argumentation.

Whatever gives Rise to them (as is very probable, some hidden *Diathefis*, as *Sydenham* calls it, in the Air, rather than any of its obvious Qualities) puts the Blood under some new change of Texture; at least upon such peculiar Effervescence, as that certain Parts or Portions thereof are disposed to be thrown out by the *Emunctories* of the Skin; where being detain'd by the *Cuticle*, according to  
their



their several Sizes and Dispositions, they form various Appearances, which is all we know of her *Apparatus*, for their Exclusion; unless that we find them constantly specificated to the same peculiar Fever, unto which they severally appertain.

However, if you think your Judgment may be better inform'd by *mechanical* Solutions, take here an Explanation of one of our *mathematical* Physicians, Dr. *Pitcairn* \*, in the following Words.

‘ Since the Blood is a Fluid, endow’d with  
 ‘ many small Parts, which can in their perspiring affect the Organs of Feeling, with  
 ‘ a Sense of Heat, the Rarification which always accompanies its increased Velocity,  
 ‘ will also excite a greater Heat than ordinary,  
 ‘ so as to be troublesome both to the Patient  
 ‘ and By-standers: And if a small part of  
 ‘ the Blood only can squeeze out to the Skin,  
 ‘ then Pustules or Spots arise, generally of a red  
 ‘ Colour: By Rarification and Quantity of Motion, the *Serum* is so attenuated, as to flow  
 ‘ plentifully out at the Pores; hence the Fever

\* In his Elements of Physick, p. 111.



‘ terminates in Sweats; if the Pores are more  
 ‘ dilated, so as to receive also Particles of  
 ‘ *Bile*, then the Fever will be solved in a  
 ‘ Jaundice.’

Thus you have the *Mechanism* of the Heat, Sweats and cuticular Eruptions, attending Fevers. Whether the Philosophy of another great Man in his Way, will be more instructive upon the same Subject, I know not, but shall present you with his Opinion thus \*.

‘ As to the Nature and Manner of Production of these Spots, we assert in general,  
 ‘ that all of them are the Production of the  
 ‘ Blood and nervous Juice, smitten as it  
 ‘ were by the Venom, and divided into grumous Parts, as it happens in its Circuit to  
 ‘ be seiz’d on by the same; for as much as  
 ‘ the animal Spirits residing in both Liquors,  
 ‘ especially the Blood, are no sooner put to  
 ‘ flight by some malign *Aura*, or putrid  
 ‘ *Atoms* but a Coagulation is induced on the  
 ‘ now dispirited Liquors; even as Milk growing  
 ‘ sour and curdled by the admixtion of  
 ‘ some acid Juice: Upon which Account

\* *Willis* de Feb. cap. 13.



‘ certain Parts of the same thus alter’d by  
 ‘ the said Venom, separate into Clots or  
 ‘ Grumes, in like manner as Blood extrava-  
 ‘ sate or let forth the Vessels, soon turneth  
 ‘ black, when presently the Motion of the  
 ‘ rest is hindered, not only in the Vessels ad-  
 ‘ joining, but also in the Heart itself; and  
 ‘ by reason of the putrid Ferment, other  
 ‘ Parts are still liable to the same *Coagulum*.

‘ Now whatsoever is thus turned into gru-  
 ‘ mous Clodders, unless the same presently be  
 ‘ thrown forth, by giving a check to the Cir-  
 ‘ culation, must presently cause Death; but  
 ‘ being cast out to the Circumference of the  
 ‘ Body, deprived of all Spirits, and lodg’d in  
 ‘ the Interstices of the Vessels, or their *Angustiae*, it appears on the Surface perfectly  
 ‘ mortify’d, representing Spots, at some times  
 ‘ black, at others purple; or else having the  
 ‘ Salt and Sulphur exalted by the malign and  
 ‘ pestiferous *Ferment*, it effects some new  
 ‘ Production, and formeth Tumours of di-  
 ‘ vers Kinds.’

‘ Whilst another \* acquaints us, that the

\* S. Pauli Digres. de Feb. Malign.



' same Thing happens to the Mass of Blood  
 ' at these Times, especially at the *Anastomo-*  
 ' *sis* of the Veins and Arteries, which befalls  
 ' a frozen River, when the Frost is broke;  
 ' for as then the Ice is melted by the kindly  
 ' Heat of the Sun, so Nature being about to  
 ' set upon the Disease, by the Benefit of the  
 ' animal Fire, and innate Heat, cooling e-  
 ' specially after the State of the Disease, and  
 ' burning no more so preternaturally as be-  
 ' fore, melts the Blood, thicken'd and made  
 ' rough by the febrile Heat in the Veins, and  
 ' as it were congealing because of abundance  
 ' of Salt in the Extremities; and as a Tor-  
 ' rent or River carries Fragments of Ice ra-  
 ' pidly down the Stream, so the Blood in  
 ' the Veins throws off small Portions of this  
 ' preternaturally fixed Salt, which are them-  
 ' selves indeed the Spots, or at least make  
 ' them. *Sed*

—————*Quis talia fando*

*Temperat a Rifu?*—————

Leaving these Speculations, as no Ways  
 instructive, I come to the *Regimen* of these  
 Fevers,



Let. II. *Concerning* FEVERS. 189

Fevers, which as in the foregoing, or the last I recited, must be mild and temperate, especially in the beginning, if not throughout; for where there is the dry or parchy Tongue, altho' the Pulse is low, and the Spirits languid, the Skin also bedew'd with a clammy *Mador*, I never could perceive good from the hot and fiery *Alexipharmicks*: So that I have always prefer'd the *Conf. Lujul.* with the *Lap. Contrayer.* (adding sometimes a little *Crocus*: or the *Conf. Raleighanæ* with the *Pulv. e chel. C. C.*) to the *Theriaca*, *Mithridatium*, *Serpentar.* &c. tho' at some times in very manifestly malignant Cases, where the Sick has felt rather Cold than Hot, I have directed a Tincture of this last, drawn in Treacle Water, after the following Manner, to be given by Spoonfuls.

℞ *Rad. Serpentar. Virg.* ʒij. *Contrayer.* ʒj. *Coccinel* ʒj.

*Infunde in aq. Theriacalis* ʒvj. & *Colaturæ addendo Syr. Croci* ʒss. *f. Mixtura, cujus Capiat Coch. duo Bolorum vel Haustuū Spatiis intermediis.*

To the same Purpose, as I said before, I  
allow



allow a Glas of Wine rather than a Draught of the *Aqua frigida*, in his Sweats.

When I am call'd early to these Fevers, and find the Sick complaining of a *Nausea*, I immediately prescribe a Vomit of the *Indian Root*, or *Rad. Ipecocubannæ*: After which, the Patient being put to Bed, a Blister is to be laid between his Shoulders, not only for the Relief of his Head, but for the Security of his Nerves, from the malign Quality of the Fever.

The Vomiting over, some temperate *Alexipharmic* is given him, such as I have now mention'd; or as the Pulse shall dictate, together with the Temper in which I find him as to Heat or Chill: Some Days after, I frequently discover the Eruption, which perhaps kept out of sight, for want of being in his Bed, till now; but by the sighing, low Pulse, unusual Faintness, and sinking about the Heart, to which the Patient points, I can easily presage to what Species the Fever belongs: which difficult and interrupted manner of Respiration, with the Sickness and Languor, are the true *Characteristics*, and as it were *pathognomonical* to an eruptive Fever,  
either



either *Rubeolæ* or *Miliary*, as the Cough, Sneezing and watery Eye to the Measles, or the *Lumbago*, Vomiting and Head-ach to the Small Pox; nor have I, unless rarely, been deceiv'd in my Expectation.

After this, if the Appearance keeps up, or the Rash holds fresh and red, the Patient seeming less oppress'd, I go on as before; but when I perceive it of a sudden growing pale, faint and retroceding, I appoint two more Blisters for the inside of the Arms, above the Elbows; and the next Day, if no Sweat breaks out, but that his Skin is dry, as also his Tongue, his Eye red, or the Blood crowded in the Arteries thereof, (a very discouraging Symptom) two more behind his Ears, reaching to the sides of his Neck. I also leech the Temples, and shave his Head; which, tho' not pain'd after the manner of a common *Cephalalgia*, yet if I find him in great Confusion, looking as it were hurried, and muttering somewhat out of the way, like a Person in a Dream, tho' his Eyes are wide open, and he gets no rest, lies as it were stupid, and calls for nothing: At these Times, as I shall take notice presently, I think



think I have known Benefit accrue from an *Epispastic* continued some Days upon the back part of the Head.

And thus I go on with the same temperate *Regimen*, only varying the Form, as I see needful, and once at least in 48 Hours applying fresh Blisters to several Parts, till I perceive some sign of Concoction in the Urine, and a critical Sweat appear; which continuing, gives a turn for the better, the Eruption all this while keeping out, and running its usual Stage, according to the genius of the Fever, from seven to fourteen, nay, one and twenty Days, as the *Miliary* will hold out, and then dry away of themselves; nor am I all this while solicitous about Stools, rather guarding against loose ones: However if the Patient is very hot and restless, with Head-ach accompanying, I allow of Milk and Sugar to be thrown up as a Clyster, once in three or four Days; if the exceeding weakness of the Pulse does not contra-indicate.

About the Close, when every Thing seem'd to take a fatal Turn, you have frequently an *Aphthæ*, which may be conjectur'd coming on, from the great Dryness of all Parts of  
the



the *Fauces*; but especially, those more backward, attended with some Difficulty in the Patient's passing off his Liquors: When this proves white, and separates kindly, after few Days, he has still a good chance for an Escape: But if black, shining or glassy, spreading farther over the *Palate*, too long durable; or if casting off, returning again, there is little to be expected as to Recovery.

This Thrush is not to be meddled with, but suffer'd, like Fruit duly ripened, to fall off itself; nor can I advise any Thing unless a little of the warm pectoral Decoction, to be thrown in at these Times: For Nature, who has found out the way of this particular *Crisis*, will, in her own Time, best fit it for throwing off, which Art may possibly interrupt, by a too hasty Separation, from the Use of maturing *Gargarisms*, or fix them faster by *restringent* ones.

As the *Aphthæ*, thus appearing of a mild and tractable Disposition, has ransom'd many, so others, as I have already noted, after a desperate Struggle of some Days, the Fever taking the Type of an *Intermittent*, have thereby escaped; of which, with the Method of its

Exhibi-



Exhibition, and the time of taking off the same, by the *Cortex*, I have already made mention. But when neither of these present, and that the Pulse still flags, the *Tremor* encreases with *Subsultus*, the Tongue falters, he lets go his Urine, falls into a *Coma*, the Features sink, as does the Sick down in his Bed, he gathers up the Cloaths, picking them with his Fingers, his extreme Parts are cold, as are his Sweats: What Hopes remain? Or what can we prescribe, that will avail? Yet even here you must not give him up as absolutely lost, how great soever may be the odds against him, for Reasons with which you shall be presently acquainted.

These, Sir, are the Fevers which have ravaged our City of *London*, through all the Quarters of the Year, for many of those past. These have been a sort of *stationary* Fever with us, whatever *Intercurrents* have passed between: And at some times, as I may say, *Epidemical* among us: These like a milder *Pest* have carry'd off great Numbers of our Inhabitants, insomuch that scarce a quarter Part, who have been thus seized, whatever Management they underwent, have recover'd  
from



from the fame; or if they have, (*ex Luto quasi Meliore formati*) they have been indebted, (as remark'd above) to an *Aphthæ*, or else the Fever of itself, fortunately changing from a *Συνοχὸς* to a *Συνοχὴς*, and either gradually, perspiring off its *Fomes*, or coming to intermit, has had its Ferment extinguish'd by the *Cortex*.

Nor truly can I say by way of *Prognostick*, that I could ever gain much Assistance from *Uroscopy*, at these Times, so as to form any certain *Præfagium* thereby; for this at some times appears pale and crude; sometimes wheyish, at others turbid; often a promising *Enæorema*, sometimes the Appearance of an *Hypostasis*: Whilst yet the Fever still goes on. How frequently are we deceived by an offer therein towards the *lateritious* Sediment, with the resemblance of a *Paroxysm*, such as the Chill, the Yawn, the Heat and Sweats? yet all suddenly going off, and in one Night's time changed for the worse, with *Subsultus*, *Delirium*, *Spasm*, and the direful train of nervous Symptoms, presently succeeding.

So fickle are our curative Indications: So inscrutable Nature in her Turns and Changes,



who scarce leaves any Thing but the Pulse to guide us, and that too, (tho' not so often) sometimes fails us.

The next I intend to speak to, is the *intermitting* Fever, which I have differenced before, as *primary* and *secondary*: And this last I have already observed, where I took notice that by the same, was to be understood any of the *continent* Kind, taking the Shape thereof, and admitting the same Cure, *viz.* the common *Febrifuge*. By the *Primary*, you are to understand what our People call an *Ague*: A Distemper so well known, as to want no Description; tho' in its Cause, at least its Appearances, and Returns with the *Gnomon* on the Dial to the same Hour, as intricate (if not more so) as the rest.

No wonder then that in the Ages of Ignorance and Superstition, a Disease that carry'd so much resemblance of *Inchantment*, should be set upon by *Charms* and *Incantations*: Or that Physicians themselves should give into the same, as they did in others, where there seemed more of the *θεῖον τι* or unaccountable: As the *Epilepsy*, which was named *Morbus Divinus*, also *Passio Sacra*,  
 3 the



the *Chorea Sancti Viti*, and the *Plague*, with sundry others, undertaken the same way: Hence also the Rise of *Amulets*, with the *Pericarpia*, still in use among some, and countenanc'd by the Success of Experiments luckily tim'd, the Disease going off at that juncture, or owing meerly to the force of Imagination impressing the Spirits, and thereby giving such surprising turn to the Humours, that many have been thus freed, insensibly as it were from these Distempers.

Having mentioned the *Chorea*, I shall here give the Description thereof, from *Sydenham*, which I take to be the most graphical any where to be met with; and of which he tells us, he cured five Children by bleeding and purging alternately for a little time, and then ordering some Remedies, he has enter'd in the same Place, for strengthening the *nervous Genus*.

‘ *Chorea Sancti Viti* (in our Author’s Words)  
 ‘ is an odd sort of Convulsion which chiefly  
 ‘ invades Boys and Girls, from ten Years of  
 ‘ Age to Puberty: First it shews itself by a  
 ‘ certain Lameness, or rather Instability of one  
 ‘ of the Legs, which the Patient drags after

O

‘ him



‘ him like a Fool : After in the Hand of  
‘ the same side, which he can by no means  
‘ keep in the same Posture for one Moment,  
‘ if it be brought to the Breast or any other  
‘ Part, but it will be distorted to another  
‘ position or place, by a certain Convulsion,  
‘ let the Patient do what he can. If a Cup  
‘ of Drink be put into his Hand, he repre-  
‘ sents a thousand Gestures, like Juglers, be-  
‘ fore he brings it to his Mouth ; for where-  
‘ as he cannot carry it in a right Line to  
‘ the same, his Hand being drawn hither and  
‘ thither by the Convulsion, he turns it often  
‘ about for some time, till at length happily  
‘ reaching his Lips, he flings it suddenly into  
‘ his Mouth, and drinks it hastily, as if the  
‘ poor Creature design’d only to make Sport.

Proceeding now, I need not tell you, what  
a Handle this has been made of late, to a-  
buse our credulous People, with *Necklaces* to  
hasten the cutting of their Children’s Teeth,  
together with a *febrifuge* Liquid, bound up-  
on the carpal Artery, to remove all sorts of  
Fevers, without other Medicines ; *Gout Stones*  
to be carried in their Pockets, when the Ven-  
der has pickt the Money out ; with others



as ridiculous, our News Papers are daily full of; but in an Age of so much Light and new Discovery, 'tis less admirable these *Phænomena* of *Agues* should be *mechanically* solved, at least attempted, whether truly or not I will not say: But this I am sure I may, that their Cure, by a lucky Discovery, is now more successfully enterprized than heretofore: When the Cause being placed in some certain Humour of the Blood, as *Pblegm*, *Choler*, *Melancholy*, giving rise to the divers Returns; *viz.* daily, every third or fourth, so much Time was taken up in preparing the said Humours, by some aperient Medicines, before they were fitted for Evacuation, by *specific Catharticks* also, as the *Pblegmagogue*, *Cholagogue*, and *Melanagogue* Draughts, or Apocems: That the Sick was hereby miserably haras'd between his Distemper and his Doctor, and at length sometimes destroy'd; in-somuch that the *intermitting* Fever was in those Days as truly an *Opprobrium* to the Physician, as the *Gout* in ours. And if the Patient was at length set free, as by the advance of the Spring Season, the Strength of



Nature, or otherwise, it was often rather owing to her, than the Undertaker.

But now a Word or two in the way of Explanation of the Symptoms of an *Intermittent*, which I shall give you first from one of our principal *Mechanicians*, Dr. *Pitcairn*, who in his *Elements* lays down the following, founded upon *Bellini's* 20th *Proposition* in his *Tract. de Feb.*

‘ The sense of Cold in the attack of an  
‘ Intermittent, must proceed either from the  
‘ Obstructions of the capillary Vessels, about  
‘ the Extremities of the Body, or from the  
‘ Blood’s being too thick in those Parts:  
‘ But since the Pulse is also low, or the  
‘ Artery but weakly distended, the Blood  
‘ must be less rarify’d; whence that Obstruc-  
‘ tion is necessarily from too great a thickness  
‘ of the Blood: But when the Heat after-  
‘ wards arises, the Lensor being washed out  
‘ of the Arteries, into larger Veins, where  
‘ there is more room for Rarification, and  
‘ from thence into the Heart and Lungs;  
‘ and the Heat being perceived in the Parts  
‘ nearest the Heart, where the Velocity is  
‘ greatest, sooner than in the Extremities,  
‘ and



‘ and most remote Parts: It is manifest that  
 ‘ the Motion and Rarification of the Blood  
 ‘ is increased; whereby the obstructing Vif-  
 ‘ cidities being broken, Sweat breaks out,  
 ‘ and there is an end or determination of the  
 ‘ Fit.’

Farther, as to the stated Returns, the *Cri-  
 ticon* tells us, that the febrile Matter, which  
 is put off thus periodically in different Indi-  
 viduals, cannot be capable of equal Attenua-  
 tion, in equal Times: Some requiring four,  
 others ten, others twenty Days, before it is  
 ripen’d, and comes to its state of Exclusion,  
 which holds true in *continual* Fevers, requir-  
 ing the same Space in the whole, tho’ inter-  
 rupted, or at different Times, which *Syden-  
 ham* had formerly remark’d, and whence our  
 Author has borrow’d the same; we may con-  
 clude the Blood’s mixture so very heteroge-  
 nous, as to contain several Quantities of this  
 Matter, each having its different Degrees of  
 Cohesion, altho’ of the same Species: One  
 Parcel of which is already fit for Exclusion;  
 another not till to-morrow at the same time  
 or longer: Hence the exactness of Turn, and  
 the due distance of Fits: Hence *Tertians*



change into *Quotidians* at some times, and *vice versa*: hence it is we often see fix or seven Fits and no more: hence its longer Duration from a greater Quantity of these unequal Cohesions, requiring exactly so many Circulations, before their Maturation: So that suppose a Person (*taking in a little Algebra*) seized with a *Tertian*, and that the Quantities of Matter be expressed in the Letters following, *a, b, c, d, e, f, g*; let us suppose (*for we are still in the way of Supposition*) the Particle *a* to begin on *Monday*, then the Particle *g* will produce a Fit on the *Saturday* sev'n-night; if they are cur'd at *g*, then *g* has required fifteen Days Maturation, and therefore must *a* too; hence it is we are often disorder'd for some Days before Fevers and Agues \*.

Again, saith he, some deny that there is an *acid* in the Blood, altho' the same is apparent to the Senses, in several of the Humours secreted thence; by which being coagulated, there ariseth this Sense of Cold in Horrors; and the Reason why it returns pe-

\* *Criticon Febrium*, p. 83.

riodically,



riodically, Dr. *Willis* will have owing to a certain Quantity of the depraved Juices, necessary to produce a *Paroxysm*; and that such Quantity is gather'd at a stated Time, according to the genius of the *Intermittent*, as in one Day, two or three.

The last Opinion I shall quote here, relating to the regular Returns of these Fevers, shall be that of *Helvetius* \*, ' who placing  
' the Cause of Fevers in general, as we have  
' formerly observed in the *lymphatic Juice*,  
' clog'd with some foreign Humours, which  
' flowing into the Vessels of the *primæ viæ*,  
' come after to mix with the Blood: First,  
' thickning it by Means of that Sourness and  
' Crudity they bring along with them; by  
' which its fermentative Motion is abated,  
' and consequently the Heat of the Parts,  
' with the Strength of the Pulse; thence  
' succeeds the Coldness with slowness thereof,  
' shivering, yawning with other Symptoms,  
' which go before the *Paroxysm* of an *inter-*  
' *mitting* Fever. This is the State which is  
' called the *cold Fit*; at this time the Hu-

\* Essay p. 20.



‘ mours in the Blood cannot long circulate,  
‘ but they must dissolve and meet with a  
‘ number of Particles disposed to ferment :  
‘ They therefore cause a Fermentation, whose  
‘ briskness is in proportion to their Quantity :  
‘ This is what kindles the Fever and renders  
‘ it more or less burning: And when all  
‘ these Particles have boiled for some time,  
‘ and have no longer a Disposition to ferment  
‘ together, the Juices cease to be agitated,  
‘ their Tumult is quieted, and their natural  
‘ State returns. During the *Paroxysm*, these  
‘ indigested Humours, which were intangled  
‘ in a thick *Lympha*, and detain’d in the  
‘ *lymphatic* Vessels, do not sufficiently par-  
‘ take of the general Motion of all  
‘ the Fluids; so that what passes in the  
‘ Blood, is not able to dissolve them, they  
‘ requiring a fixed and limited time for their  
‘ Digestion and Dissolution: And this is  
‘ what makes the *Type* of intermitting Fevers  
‘ so regular; so that the difference between  
‘ the *continual* and *intermitting* Fever, con-  
‘ sists in this (*if we may credit this French*  
‘ *Author*) that in the first, the Humours are  
‘ thinner and more disengaged than in the  
‘ last,



‘ last, hence those continue to disengage  
‘ themselves without Interruption ; whilst  
‘ these cannot, unless at stated Times or re-  
‘ gular Periods.’

What sort of *Mechanism*, or what *Philosophy* we have here, to solve the *Phænomena* of *intermitting Fevers* or *Agues*, I shall leave you to judge : Whilst on my own part, notwithstanding all that has been here recited, I must still believe the same one of Nature’s *Arcana*, or hidden Mysteries, and however *mechanically* transacted in the Blood, yet scarce *mathematically* to be solved, as to the real *Modus*. Nor do I conceive it of great moment to pry farther thereinto, since a kind Providence has directed us to an *Antidote specifical*, if any Thing can deserve the Name (*viz.* the *Cortex*) or by which the Disease is subdued, as we say, at once ; the manner of whose Exhibition has been so well deliver’d by *Sydenham* and others, and so continually in Use among us, that I may doubtless save myself the trouble of more Words about it. I am sure no *Theory* nor *Hypothesis*, either *Physical* or *Mechanical*, gave the first hint of this divine Remedy, which was found out meerly by *Ob-*  
*servation* ;



*servation*; and from repeated Trial, brought into Practice: but after the same is once discover'd, we then go upon solving *Problems*. Thus according to one of these \*, *whatever hinders Coagulation of the Blood, will cure these Fevers; and if you bleed upon the Cortex, the Blood will keep its Fluidity: The like of Crab's Eyes, Sal Absynth. & Armon. which hinder the Blood's Coagulation.* Yet these, I fear, unless very rarely, stop the Fits of the same Fever; however if by their property of preserving the Fluidity of the Blood, this Alteration is effected, how comes it that *Alum*, of which this Gentleman makes mention, among some other *Febrifuges*, so frequently produces the like? Whence others have, with more Reason, taken up a Persuasion, that the Cure is here brought about by its Power of constipating, or locking up the *Ferment*, that gives Rise thereto; and this is doubtless very plain to our daily Observation, that we have not a more noble *Ifchaema*, or blood *Stauncher*, where the same arises from any inward Breach of the Vessel, or sweat-

\* Idem Ibid.



ing through by Reason of its Acrimony and Tenuity, especially if attended with a feverish Heat, than this of the *Cortex*: So vain and precarious are most of our *Hypotheses*; so diverse and disagreeable our Argumentation about some physical Appearances: from which we may obtain indeed this Satisfaction, that both the Nature or real Essence of most Diseases, as well as the manner of the Operation of Medicines, or the Remedies which subdue them, are often conceal'd from us: And that we ought to be exceeding cautious, lest in attempting the Solution of such *Problems*, as Nature herself has not sufficiently discover'd to us, we do not lay open our own Ignorance instead of her Transactions.

This one Thing however let me farther advise, with respect to the *Bark*, that before you give it, the Stomach be well cleansed of its slimy Contents, by a Vomit, the Morning or Evening before the Fit; and indeed I think it were much to be wished, that we were Masters of some Preparation thereof, that might conceal it from the Knowledge of the Patient, and render it more facile to be taken by some of these. As no small Advantage



vantage might accrue hereby to *Pharmacy*, so likewise to certain prejudiced People, who are to be cheated into Health, and will by no Means admit of it knowingly, altho' we cannot otherways help them.

The *Infusions* or *Tinctures* and *Decoctions* thereof, as also the Refine I have try'd often, but I cannot say with that Certainty and Dependence, as when taken in the Substance.

I have seen also an *Extract* here in Town, that has answered much better than either of the former; but it is difficult to hit rightly, or preserve a due Consistence, with full Energy; being so apt to grow dry and refinous, and to crumble, unless moisten'd with Spirit of Wine, so as to form it into Pills.

Some put a large Quantity, as two or three Pound of the best *Bark* grossly powder'd, into a suitable one of rectify'd Spirit: Which having placed in *Balneo*, the refinous Parts are then dissolved, and a deep rubicund Tincture drawn; after which the *Fæces* are boiled in a watery *Menstruum*, to get forth its stiptic Parts, which being strongly exprest, and  
the



the greatest part of the Spirit drawn off, in order to preserve the same for the like or other Purposes, the remaining *Tincture* is mix'd with this *Expression*, and gradually evaporated to an *Extract*, a Scruple of which in three Pills, or half a Dram at most in four, for grown Persons; with half this Quantity for Children, has answer'd double the same of the Powder.

Whether the *Magma* calcin'd, would afford any Quantity of *fix'd Salt*, I know not, never seeing it try'd; but if it would, and were added to the *Extract*, as in *Raleigh's Confection*, it would, if no otherwise, certainly contribute to keep it from growing hard, and so very brittle, as will any other *Alkaline Salt*.

Of near Resemblance to the foregoing, or much the same, is this ensuing Recipe from Dr. *Pitcairn*, which he terms a *French Preparation* thereof: And gives from ʒß to ʒi. four Doses, in the interval of the *Paroxysm*: Having once or oftner vomited the Patient, before the Exhibition thereof.

R. Cort. Peru crasso modo pulv, ℥ij. Indatur Matracio, & affunde Spir. Vini ℥ij.



℥ij. Sit vas tertia parte vacuum, quod sæpius debet agitari. Stet bene clausum in Arena moderatè calida, frequenter, ut dictum est, concutiendo: & cum Spiritus purpureum Colorem acquisiverit (Signum Solutionis partium Corticis resinofarum) augeatur Calor, adhuc continuando donec Menstruum plene saturatum est: dein frigescat vas, & colatur Tinctura bis terve per pannum lineum, fortiter exprimendo, & infunde Colaturam in phialam alteram. Indatur residuum in Matracium, & iterum colloca super Arenam calidam, tunc affunde Vini Gallici ℥ij, & concute ut antea: cum tam Colore quam Sapore, apparet Salinas partes Corticis absorberi, coletur ut prius. Misceantur liquores, & unà indantur vitreo Cucurbito super Calorem temperatum, evaporentur, dum partes resinofæ lateribus vasculi adhærentes, remonentur, ut in fundum subsideant; & tandem cum pars major humiditatis hoc modo sit absumpta, infunde residuam in vitreum vasem, super Arenam ponendo, & addendo ℥iij. Syr. e succo Cbermes, leni agitatione &



*& Calore evaporetur reliqua pars humiditatis ad Consistentiam Extracti.*

To each Dose of this Extract, or each other, if a *Diarrhæa* happens, may be added half a Grain or a Grain of the *Extract*.  
*Thebait.*

A thin Extract also of Gentian Root with Chamomile Flowers, he says, may be substituted in the Place of the foregoing, where that succeeds not; or this Mixture of *Dekker's*, cry'd up by some.

*R Cort. Lign. Guaj. Fraxin. ana ʒj. Extr. Rad. Angel. Gentian. Antimon. Diaphoret. sal. Vol. Armon. ana ʒi. Myrrh. ʒij. m. f. Pulvis in octo Chartulas.*

The following from *Fuller*, I have known sometimes take Place, when the *Bark* has been ineffectual.

*R Sal. Absinth. ʒß. Antimon. Diaphoret. ʒj. flor. Chamomel. ʒijß. m. f. pulvis in totidem (viz.) octo Chartas.*



Or this more simple which I much prefer.

℞ pulv. flor. Chamomel. Sal. Absinth ana ℥j.  
Ol. Nuc Mosc. gut. i. Syr. e Cort. Aurant.  
q. s. m. f. Bolus sumendus et repetendus  
quarta vel quinque quaque hora per dies  
aliquot.

Bates has another, which he calls *Febri-  
fugus certus*, vide *Pharm. Bat.*

The *Empirical Cure* is this, which has  
often answer'd, and was a great Secret with  
Dr. Brooks.

℞ Aluminis ℥j. Nuc. Mosc. pulv. ℥ij. Sac-  
char. ℥ß. m. f. Pulvis dandus quarta  
quaque hora cum quolibet Vehiculo in  
intervallo Paroxysmi, vomitorio præcedenti.

To the *Intermittent* appertains an *Anoma-  
lous* one, frequently observed in those Seasons,  
where the Genius of the *stationary Fever* in-  
clines that Way, or becomes *Epidemical*,  
which it must surely have been about the  
time when Dr. Morton pen'd his Observa-  
tions.



It is called *Anomalous*, not for its irregular Returns, but its appearance like a Counterfeit, under the shape of some other Disease, as Head-ach, Pain in the Side, Colick, Cholera, Nephritic Illness: Nay, even a Tooth-ach and Ophthalmy, which I have seen several Times coming periodically, and miserably afflicting the Patient for many Hours, then leaving him till the next return: So that indeed in every Illness afflicting the Body at stated Periods or Intervals, altho' the usual Symptoms of Shivering, Heat, or Sweats, do not appear, this Remedy ought to be tried, and rarely fails, especially where the Urine, by its brick-dust Sediment, betrays this *Proteus* like Enemy, or conceal'd Ferment, to be got into the Blood: And surely those Practitioners know very little of this Drug, who use the same no otherwise than as a *Febrifuge* for *Agues* and *intermitting* Fevers: Since there is scarce a better Remedy to be met with, for giving a Sprightliness or new Life, as it were, to the feeble and impoverish'd state of the Blood, to bind up its lax Texture, and secure it from breaking forth its Boundaries, when by its Heat and Acrimony



mony (as we have remark'd before) it is liable thereunto: Nor in *hysterical* and *hypochondriacal* Cases, when a Constitution has been shatter'd by some *chronical* Illness, whereby both Solids and Fluids have been much weaken'd in their Tone, have we a more noble corroborative or restorative Medicine, than the Bark, given in proper Quantities, and at due distances of Time.

This farther I would also have you take Notice of, as you may of *Opium*, *viz.* where there is a proper Indication for them, there is hardly any thing to contra-indicate their Use.

Thus as no Man in his Senses would venture an *asthmatic* Person, at other Times, with a Grain of *Opium*, or a Dram of the *Cortex*, by reason of their constipating or incraffating Qualities: Yet in a very extreme Colick, or other Spasm, as the former must be directed, so to put by the *Paroxysm* of a regular *Intermittent*, we may also safely administer the latter.

“ As to the Use of the first of these in  
 “ *Fevers*, take the following Remark from  
 “ *Sydenham*, *viz.* That from a faithful Col-  
 “ lection



“lection of many Observations, he had  
 “found, that in the beginning State, and  
 “much more in the increase of the *Fever*,  
 “they did no good, how great soever seem-  
 “ingly the Occasion, as in *Phrenetis*, and  
 “constant *Vigil*, but in the decline of the  
 “Distemper, as on the 12th Day, and still  
 “better on the 14th, if Care be taken that  
 “the same be not heighen’d by *Cordials* and  
 “a hot *Regimen*, they were administer’d with  
 “Success: This only by the way.

The last of the Fevers I shall touch upon,  
 shall be the *Hætick*, which the best Writer  
 upon that Subject, Dr. *Moreton* \*, has di-  
 stinguish’d as *original* and *symptomatical*: The  
 first of these he tells us is also divided into  
 two, an *Atrophy* and a *Consumption of the*  
*Lungs*.

But whoever rightly considers, will find  
 few Instances of this Distemper, which are  
 not some way *symptomatical*, or that take  
 not their Rise from some preceding Illness.

Thus when a Tubercle, one or more (as I  
 have already observ’d) through Obstruction of

\* *Phthisiologia*.



some excretory Ducts, formed in the vesiculous Substance of the Lungs, increases and begets a Difficulty in breathing, which after a while inflaming, a *Symptomatic* Fever is occasion'd, till at length impostumating, the Blood being tainted or imbued with certain purulent Particles in its Passage, a *putrid Fever* as formerly observed accedes to the *Inflammatory*, with all the dire Train of Symptoms following, and gives rise to this particular Denomination of a *Consumption of the Lungs*, because that is the Organ where the Malady began; but if the like Aposteme, whether by Stones or Inflammation otherwise stirred up, is formed in the Kidney (a Case very common) there is surely as much Reason to term this a Consumption of that Part; or suppose in any other *Viscus*, than which nothing more so, and attended with the like mischievous Symptoms, as polluting the Blood, kindling a Flame therein, &c. Why, I say, may not these, by the same Right, be named Consumptions of the several Bowels where the Abscess is first form'd, and by which the Blood and nervous Fluid are in like Manner vitiated and render'd unfit

to



to be assimilated in the Way of Nutrition, or supply of the daily Waste upon the Parts?

I own the Aposteme of the Lungs, being the most common on the Account of its spongy and lax Texture, liable to be stuf with fuliginous Recrements, and foreign Corpufcles drawn in with the Air, and a Breach in its Substance, through the constant Motion in Respiration, hardly, if ever, consolidated: This, I say therefore, in the Way of *Empbasis*, is called a *Consumption*, and that *original*, tho' no more so, than those from *Abscesses* elsewhere, which take their Rise from some other Distempers going before; such as the *Scrofula* or *Struma*, the *Scurvy* or other saline *Discrasy* in the Juices of the Blood, internal *Hæmorrhages* from a Solution of Continuity in some of the Parts, by which the Vessels are laid open; the *Lues Venerea*, *Fistula's*, the Consequence of some inward Apostemation, which cannot be healed, nor with Safety laid open; *Cachexies* or *Chloroses*, with whatever heaps up Obstructions in the *Mesentery*, whereby the chylous Liquor is either soured, intercepted, or work'd up, by



Means thereof, into a putrid and preternatural Effervescence, destroying the Balsam of the Blood, and kindling this particular Fever, which being slow and lingering, the Patient is often deluded with vain Hopes of his Recovery, when his Case, to the discerning Physician, is truly hopeless and incurable: But of this before, in our general Division of *Fevers*.

The nervous *Atrophy* takes its Rise more particularly from some Defect in the Fluid of the Nerves; for as this, together with that of the Blood, seem to contribute to the Motion of the Body, as is manifest by the Ligature made upon the great Artery, by which the Passage thereof is hinder'd to the Limbs, as well as on those of the Nerves, whereby the Parts below are deprived of the same, so both surely have their Share in its Nourishment; and as the latter, polluted some how, or vitiated in its *Crafsis*, gives rise to the hectic Disorders of which we are now speaking, and have already enumerated; so the first, after a more peculiar Manner, is concerned in those we call *Consumptions* of the *Nerves*, or *nervous Atrophies*, derived from the  
Greek,



*Greek, ex a particula privativa, & τρέφω nutrio, i. e. without Nourishment, the Distinction between which two is so absolutely necessary, that unless he observes the same, no Man can direct a proper Regimen for the Cure, which is (at least ought to be) as different as that of the sanguineous and nervous Fever.*

For as the *Consumption*, so call'd, of the *Lungs*, and others, proceeding from Inflammation or *Abscess*, which lay the Foundation for what we call a *Hectick*, fixing upon the Habit of the Body in general; as these, I say, require the most temperate, humecting, refrigerating and edulcorating Remedies, to soften the *acrid* Humours, and extinguish this predatory Fire kindled therein; such, for Instance, as the *Sarsa* and *China Decoctions*, the *Absorbentia*, with the *Ass's Milk*, *Almond Emulsions*, and the *Milk Diet* in general: So the *nervous*, in which the Sick complains rather of Cold than Heat, calls for a warmer Method, as *Chalybeats* and *Bitters*, to comfort and fortify the Digestion, and mend the Appetite; which being, as it were, pall'd, is neither craving for Food,



nor able to concoct rightly what is receiv'd. Hence in general the *Atrophia Partium* is a Consequence of the *Atonia Nervorum*, and the *Marasmus* ensuing these *Consumptions*, owing, as I said but now, rather to some Fault in the *nervous*, than *sanguineous* Fluid, taking its Beginning oftentimes from Grief, Melancholy, or some other Passion, without a Trespass in the other *Nonnaturals*; so that after all, it may be made a Question, whether we have any *Consumptions original*, unless the *hereditary*, or those which from the Parent are imprest on the *Prima Stamina Vtæ*, in the *Offspring Fætus*.

From both, however, whether *sanguineous* or *nervous Consumptions*, we may, in the Way of *Corollary*, make this just Observation; that since there is no solid Part of the *Animal Compage* destroy'd thereby, the most thin and meager Person having the same Number of Muscles and Membranes as the corpulent, not a single Fibre, unless in the Case of Ulcers, either external or internal, destroy'd, all which is lost in Weight being the *Parenchyma* so call'd, made up of divers Liquors, lodg'd in their several Vesicles or Cells, together  
with



with the Fluids passing in their proper Pipes: These, I say, which like a *Tomentum* or Stuffing, give bulk as well to the Muscles as to the Viscera, and other the contain'd Parts, now wasted, dry'd up, or drain'd away, their membranous Enclosures coincide, as do the *Vesiculæ* themselves, leaving little other than dry Skins and Fibres; a plain Indication, surely, that the whole Body, excepting the more stable Parts, the Bones, is really *vascular*, and that the Cure of a *Pthisis*, or, indeed, every *Consumption*, taking the Word in its greatest Latitude, or vulgar Acceptation, is only by a supply of fresh Juices to recruit or fill up these *Vesiculæ*, and repair the Waste, if we knew which Way the same might be accomplish'd; and this possibly contains as much of the useful *Mechanism*, at these times, as is necessary we should be acquainted with.

We have had many Treatises of late publish'd upon this Topic of *Consumptions*, with what View, I mean whether to the public Good or private Gain? let the Performances speak for themselves: But you know, Doctor, that it has been too much in Use, for some of much Leisure or little Business, to  
single



single out a popular Distemper, on which to harangue, no Matter how, in Expectation that the Sick of such Disease may be thereby allur'd to consult them; the Title Page of which being often advertis'd, supplies the Place of a *Quack-Bill*: But since I understand this particular one of the *Consumption* has been lately handled by a *Mechanician*, and all the several Gradations thereof, explain'd by *Neutonian Principles*, I will hope at least we may live to see this cruel Article left out of our *Weekly ones*, by which certainly more Honour will redound to our new *Microcosmeter*, as well as Emolument to the whole Kingdom, than has ever happen'd since the Foundation of *Coos*, renowned for the Births of those two great Men in their Professions, *Hippocrates* and *Apelles*.

I shall now take the Liberty to break off the Thread of my Discourse concerning *Fevers*, either in *general* or *particular*, which yet, to render as useful as I can, I would not, methinks, leave without some farther Hints as to those common Evacuations, practis'd in their Cure, and taken from the Method which Nature has been observ'd to use herself,



self, as I find them summ'd up by Dr. *Freind* \*, in the Manner following.

The Evacuations, saith he, which *Hippocrates* observ'd to fall out among those he attended under *Fevers*, were these following, *Bleeding, Sweating, Vomiting, Abscess, Spitting, Stools, and Urine.*

These are set down as Marks for our Imitation, whereby to relieve *Nature* oppress'd, in such Way as she seems to have indicated herself.

As to the first, by what Part soever, if the Eruption of the Blood be *critical*, as sometimes falls out, we are hereby encouraged in *Fevers*, especially of the *inflammatory Species*, to draw off the same in such Quantity as the Patient's Strength will allow, and indeed in Cases of *Repletion*, or where there is *Plethora*, either *general* or *particular*, by which the Vessels are distended from the Quantity or Rarification of the circulating Fluid, what can be the Remedy, unless *Depletion* of the same, or *Inanition*, to such a Degree as the Pulse directs? Which at the

\* Comment. de Febris.



Beginning of the Seizure, whilst this is strong and high, may be done with Safety ; or if seemingly depressed from Fullness of the said Vessels, at this Time with as great Security and Advantage, of which before.

As to the Manner or Way, whether *derivative*, *i. e.* drawing more towards the Parts affected, or *revulsive*, *i. e.* calling off the same by one directly contrary, or opposite : the Nature of the Complaint, and the Part grieved thereby, will best demonstrate ; about which, also, I would advise you should look over our Author's second Commentary, already refer'd to.

The *French*, and some other Foreigners, in almost all the *cephalic* Disorders, practise this *Revulsion*, by opening the Veins of the Feet, which is rare, with us, especially in Men (the more the pity) we rather choosing the *Derivative* at such Times, as by those of the Neck ; or content ourselves with the general Depletion from the Arm, the Circulation of the Blood rendring these Disputes about the Election of the Vein perhaps less momentous.



The second Evacuation taken Notice of by *Hippocrates*, as the *Crisis* of Fevers, is that of *Sweat*; but then you must observe they were those of Nature's own raising; and whether these put a final Conclusion to the Disease, or appear'd only at its going off, is not observed; yet whether so or not, 'tis plain, according to our learned *Commentator*, that in the *Greek Hippocrates* there is no Mention of any *Sudorific* Medicine, and in the *Latin* one, falsely ascribed to him, only once.

With great Vehemency, therefore, does this Gentleman, in his ninth *Comment.* exclaim against them, as fit only for *Quacks* and *Chymists* to make their boast of, together with the practising Gentlewomen in the Country, or the understanding Nurses here in Town: And altho' I cannot come entirely into the Opinion of this worthy Man, as to some Particulars about this Matter; yet I want no Arguments to persuade me, that the common Method of forcing out Sweats, by their boasted *Diaphoreticks* or fiery *Alexipharmics*, in the Beginning of Fevers, putting the Patient, as it were, into a hot Press, under an unusual Weight of Bed-cloaths, has  
been



been highly destructive; and I cannot choose but admire that any one related to the Profession, should give into this pernicious Custom, which tho' not in so great Degree, since the Time of *Sydenham*, yet still (as the same Person observes) too much prevails among us: For if the *Cocta non cruda*, mention'd by *Hippocrates*, are the Humours only fitted for Discharge, how can we think that Nature, who is tenderly to be led on, and not driven by any Means, can at the first Dispute with her Enemy, have made room for his Expulsion? Or what is this but taking the Work by Force out of her Hand, and (putting her by the Way she was taking to save) to destroy the Sick?

Do we not generally find that all these hasty Sweats are *symptomatical*, seldom lessening the *Fomes* of the Disease, but encreasing the same? Or what do we hereby, but quicken the Motion and Heat of the Blood, driving it with greater Force to the Head, and exciting either *Coma*, *Vigil*, or *Delirium*?

Let me therefore importune you, in the Beginning of any Fever, not to meddle with  
any



any other *Sudorific* than a Draught of warm Sack-Whey, or such like diluting Liquor, nor to suffer more Cloaths upon the Patient than he has been accustom'd to; neither yet to administer (which for Form sake, or to make the Patient easy, must be comply'd with) any Medicine unless the foresaid *Pulv. e Chel. Canc. c. the Conf. Lujulæ* and the *Sal. Nitri*, especially in a *sanguineous* or *inflammatory* Fever, under the Notion of *Alexipharmics*, or *Sudorifics* either, and then wait for *Nature's*, or the *critical Sweats*, which breaking out about the Time of the Urine's Separation, may bring good Tidings with them.

It must be yet granted, to find the Patient with an agreeable Damp, or a moderate Breathing, through the whole Course of a Fever, is more eligible than the dry Skin, with great Heat and Burning, unless under a *Paroxysm* of an *Intermittent*, before the Sweat breaks out; since it is very manifest that nothing can go well, even at these Times, with such a Temper: So that notwithstanding I am as much an Enemy to the hot and fiery *Alexipharmics*, or the *Diaphoretics*, so called,

as



as the Doctor can be ; yet I must differ from him in this, of thinking it so rare for Fevers to be determin'd by *Sweats* only ; being persuaded in myself, that the greater Part by far have had no other perceptible *Crisis*, than that of the *sensible Perspiration*, or that the same is more certain than all other Evacuations, whether by *Bleeding*, *Vomit*, *Abscess*, *Spitting*, *Stools*, or *Urine*, here mentioned by *Hippocrates*, put together in the Computation : Nor can I find the Doctor himself, after all he has said, so rigorous, as utterly to reject the more mild and temperate Remedies, now in request with us, under such Denomination, as you may perceive by his own Words.

*Nollem hæc quæ hætenus dicta sunt, ita accipi, quasi nulla in Febris curandis Remedia, quæ Sudores eliciant suaderem : Etenim quæ medicæ materiæ sunt, & temperata habentur, multo cum Emolumento adhiberi & posse & debere, haud inficiar. Ista de quibus ante dictum est (nimirum Rad. Serpentar. Sal. C. C. & similia) cum utrinque a Mediocritate nimium*  
*absint,*



*absint, tanquam plane pernicioſa, ex Medentis ſupelleſtile, penitus rejicienda ſunt* \*.

And what can be more natural to conceive, than that a Diſeaſe, which has evidently proceeded from a Stoppage of the Pores, ſhould, when *Nature* herſelf has prepared the Humours in order thereunto, be carried off by the ſame Paſſages, or ſetting thoſe Pores open again, eſpecially if the Work can be accompliſh'd by Means which do not diſturb or overheat the Blood, and is attempted at ſuch Times and in ſuch Caſes as ſhe herſelf does indicate?

I know well that our famous *Sydenham*, is frequently exclaiming againſt this Method, “aſſuring us from his own conſtant Experi-  
“ence, that moſt Fevers are more certainly  
“cur'd by *Bleeding* and *Purging*, (*meaning*  
“*Lenients*) or *Glyſters* alternate, for ſome Days,  
“than by *Diaphoreticks*; and that nothing ſo  
“powerfully cools the Blood and keeps the  
“Fever out of the Head, eſpecially if the  
“Patient be kept up a-days, as this Method.  
“Whereas on the contrary, that which is

\* Vid. Comment. 3.



“ busied in eliminating the febrile Matter  
 “ through the Pores of the Skin, as it is less  
 “ certain, so it is more troublesome and tedi-  
 “ ous, and if it chance the Sick to escape  
 “ Death, yet he must be punished with a  
 “ load of Remedies, to take off those Symp-  
 “ toms which the same have brought on,  
 “ whilst the Cure is endeavour’d by the hot-  
 “ test Remedies, which according to the  
 “ *Genius* thereof, requir’d the coolest. For  
 “ tho’ Sweating, to speak properly, is Nature’s  
 “ own Way, by which she casts out the fe-  
 “ brile Matter, and is more natural and com-  
 “ modious than the rest, when she is left  
 “ to herself, by first digesting the offending  
 “ Matter, and being rightly concocted, gent-  
 “ ly expelling it through the Habit of the  
 “ Body: Which happy Event, when *practi-*  
 “ *cal* Physicians had observ’d, the *dogmatical*  
 “ took hence the occasion, to draw Inferences,  
 “ that all Fevers must be set upon the same  
 “ Way, and by no other. Yet should we  
 “ grant this, how much soever *Art* would  
 “ seem to imitate *Nature*, it cannot  
 “ arrogate to itself this Privilege, of cu-  
 “ ring Fevers certainly in this Way. For  
 “ first,



“ first, *Art* knows not by what Means the  
 “ peccant Matter should be fitly prepar’d  
 “ to undergo Expulsion: Or if it did, it  
 “ has no certain Signs by which to be ad-  
 “ monish’d of the due Preparation thereof,  
 “ and consequently ignorant of the Times  
 “ of provoking this Discharge before a due  
 “ Concoction; for by forcing the crude Mat-  
 “ ter upon the Brain, it adds Oyl to the  
 “ Flame. And according to *Hippoc. Coëta*,  
 “ *non cruda, sunt expellenda*. Farther saith  
 “ He

“ This is moreover to be observ’d, that as  
 “ those Sweats which come at the beginning  
 “ of the Fever, are altogether symptomatical,  
 “ not critical, so those thus early forced  
 “ by *Diaphoretics*, conduce as little for the  
 “ most part to the Cure as the former.  
 “ Again, as *Art* is ignorant of this fit Time  
 “ to promote Sweats, so neither does it know  
 “ how long to persevere in forcing them:  
 “ And should they be continu’d beyond the  
 “ due Time, by which the Matter, occasion-  
 “ ing the Disease, is wholly expell’d, a Waste  
 “ of those humid Particles, by which the  
 “ Blood should be diluted and attemperated,



“ will make the Fever continue longer, and  
“ farther heighten the same.

“ It is evident therefore, how uncertain  
“ this Method is, whereas on the contrary,  
“ it is in the Physician's Power to moderate  
“ the other Way, as he pleases, in which  
“ the febrile Matter is sent forth first by  
“ Bleeding, and then by Purging: besides  
“ this Method is preferable, for that if the  
“ Physician should mistake his Aim, yet he  
“ will not hurt the Patient, which is other-  
“ wise in the use of *Sweating* Medicines:  
“ For the Heat of one who is kept continu-  
“ ally in Bed, contrary to his Custom, to  
“ say nothing of Cordials, which are always  
“ used in this way of Cure, confound the  
“ Oeconomy of Nature, and bring on Con-  
“ vulsions, by which she is oppressed, and  
“ which are now imputed to I know not  
“ what sort of *Malignity*: Which Inven-  
“ tion, either as to the Nature or Notion  
“ of it, has been much more destructive to  
“ Mankind than even that of Gunpowder:  
“ Forasmuch as these Fevers are chiefly said  
“ to be *malignant*, in which the Inflamma-  
“ tion is higher than in others, and for that  
“ Reason,



“ Reason, Physicians have betook themselves  
 “ to Cordials and Alexipharmicks, to the  
 “ end they may expell through the Pores of  
 “ the Skin, the Poison they dream of. Up-  
 “ on which account they have prescribed the  
 “ hottest Remedies and *Regimen*, for those  
 “ Diseases which required, above all others,  
 “ the coolest of both: As is evident both in  
 “ the *Small-Pox*, one of the hottest Diseases  
 “ in *Nature*, and in the Cure of other *Fe-*  
 “ *vers*; into which Error they were led by  
 “ seeing the *Petechiæ* and purple Spots,  
 “ with other Appearances of the same Kind,  
 “ all which owe their Rise, in most Sub-  
 “ jects, to an Inflammation superinduced up-  
 “ on the Blood of the Sick, too much  
 “ fir’d by the Fever: Forasmuch as they  
 “ rarely happen except at the beginning of  
 “ the Plague, and these *Flux Small-Pox*  
 “ that partake of the highest Inflammation.

I have here given you a Translation at large, that you may better judge of the Strength of his Argument. The Difference between us, lies surely in the want of distinguishing the *Inflammatory* or *Sanguineous*, from what I call the *Nervous Fever*. This Au-



thor you will find is every where declaiming against a hot *Regimen*, and keeping the Sick from Bed a-days, lest the Heat of the Cloaths, and the decumbent Posture of the Body, should impell the Blood too hastily to the Head, and occasion Phrensy or Delirium, as well as to prevent intempestive *Sweats*. In all which he is surely right, so far as regards the former of these, such as the *Angina*, *Pleurisy*, *Peripneumony*, the *varolous* or *flux'd Small-Pox*, as also the *Measles*: But in those *Eruptives* I call *Mali Moris*, such as the *Rasby*, the *Rubeolæ*, and that of which we are now speaking, the *Miliary*, this Method will not hold: Which induces me to think these Species rarely happen'd, or were less *Epidemical* at the Time he wrote, otherwise his just way of Reasoning as well as Observation, would have convinc'd him, that neither of these would suffer these repeated Evacuations of Bleeding and Purging, much less could the Patient, without the utmost Hazard of these Eruptions falling back, be kept out of his Bed, which is not the Result of a hot *Regimen* but rather of some *malign* and poisonous Matter implicated with the *Blood* and

*nervous*



*nervous Juice*, which *Nature* has no other way of separating, than by throwing forth the same to the Confines of the Body: And wherein we know of no better way of assisting her than by temperate *Cordial Remedies*, together with *Vesicatories* and the kindly warmth of the Bed; for whatever our Author has advanc'd against the Notion of *Malignity*, we are fully satisfied that the *Fomes* of these Fevers is of a more subtle or spirituous Nature, and of a diverse *Indoles* from the rest: And calls for a different *Regimen* also, and that from the Symptoms attending, the Oppression on the *Præcordia*, the *Languor*, the weak, low and staggering Pulse, the *Tremor* and other train of *nervous* Symptoms, which are not the Effects of *Regimen* either hot or cold, but proper *Diagnosticks*, I might say *pathognomonic* Signs: that these I say therefore are not improperly stil'd *Malignant*, and how great a Prejudice soever he had taken up against the usual *Alexipharmicks* prescrib'd at that time, he is yet so candid, as to own sometimes great Mischief might happen by the opposite Method, giving rise to the same Epithet. ' For there is nothing (saith he) more



‘ frequent with unexperienc’d Physicians,  
‘ than to blame *Malignity* when with *Cold*  
‘ *Medicines*, and the preposterous use of  
‘ *Glysters*, they have so loosen’d the *Crafsis*  
‘ of the Blood, and so weaken’d Nature in  
‘ performing the Despumation thereof, that  
‘ Faintings and other Symptoms (which are  
‘ really the natural Effects of such Hinder-  
‘ ances) fall out.’ Which different Opinions  
of the same Gentleman we cannot well re-  
concile, unless by supposing the first, the  
*Hot Regimen*, is meant of the *Inflammatory*,  
this last, the Cold of these *nervous Fevers*.  
As to the Cunning or Knowledge of *Art*,  
in the one more than the other, it stands  
sure upon the same Level. For *Art* knows  
as little whether the febrile Matter, one part,  
is of that Nature as to be let out by the  
Lancet, whilst the other must be discharg’d  
by Stools, thus alternately repeated; much  
less are we sure that in this Method, if we  
do no Good, we can do no Harm, so that  
we must leave both to the Umpire of Expe-  
rience, as he acknowledgeth. Thus if I find  
in the inflammatory Fever, by keeping my  
Patient out of Bed for some time in the Day,  
by



by drawing off Blood, for two or three times at proper Distance, and throwing up of *Glysters* on the Days between, together with the cooling Diluters, the offending Matter is drawn off, and the Heat extinguish'd: But if on the other Hand in the *Nervous*, either the rashy or miliary, if I bleed, altho' but once, much more if I go to purge him, when Nature is intending the Expulsion of the malign Particles to the Skin, and still more especially if I take him out of Bed, and expose his Body to the Air, at this critical Juncture: If by this proceeding, I say, together with a Cold, in the room of a Cordial, at least temperate *Regimen*, I find the Eruptions retroceding, and the Sick daily sinking till the deadly Symptoms approach: This Experience, I say, must guide me in opposition to all *Theories* and *Hypotheses*, when the one and the other Method of proceeding is to take place: Nor must I forget to acquaint you what the same Author observes in his *Recapitulation*, in the Words following concerning the febrile Crisis by the sensible Perspiration.

“ And



“ And thus in the Space of fifteen Years,  
“ wherein the foregoing Observations were  
“ made, there appear'd five sorts of Con-  
“ stitutions: Some certain and peculiar Dis-  
“ position in the Air, producing so many  
“ several *Species of Epidemics, viz. Fevers,*  
“ the first of which reigning in those Years,  
“ wherein Autumnal Agues were most fre-  
“ quent, seem'd the only regular in disposing  
“ the febrile Matter, prepar'd by due Con-  
“ coction, to go off at a certain Time, ei-  
“ ther by a sufficient Sweat or large Transpi-  
“ ration: And which therefore I call the  
“ *depuratory Fever*, which I reckon indeed  
“ to be the chief and primary Fever of *Na-*  
“ *ture*, both as to the regular Method she  
“ used in preparing the morbidick Matter,  
“ and in digesting the same at an appointed  
“ Time: And also because this more fre-  
“ quently occur'd than other Fevers. And  
“ it is probable that *intermitting Fevers*  
“ raged *epidemically* in former Days, much  
“ oftener than other Diseases, if we consider  
“ the many and large Tracts publish'd by  
“ the old Writers concerning them: Tho'  
“ they have appear'd less frequently since the  
“ last



“ last great Sicknefs in *London*, and indeed  
 “ that *pestilential Fever* was the forerunner  
 “ of all those Inflammatory ones which came  
 “ afterwards. Again, (saith he) unless I am  
 “ deceiv’d, all those excellent and necessary  
 “ *Axioms* which *Hippocrates* and the *Antients*  
 “ have deliver’d, must have been adapted to  
 “ this *primary Fever* abovemention’d, where-  
 “ by it is so to be govern’d that the febrile  
 “ Matter may be prepar’d to make a true  
 “ Crisis by Sweat. For I do not rightly un-  
 “ derstand how those *Aphorisms* can be ac-  
 “ commodated to those subsequent Sorts that  
 “ have a different Nature, and are seldom  
 “ cur’d by that Method.

And this shall suffice if I thought it not more than sufficient, to prove that albeit there are some which are best remov’d by *Bleeding* and *Glystering*, thus alternately repeated, yet the *primary* and *original Fever* was always judg’d by Sweats.

The third of the Evacuations observ’d, as determining Fevers, among the Patients of *Hippocrates*, was that by *Vomiting*; yet this I think is seldom the Case with us, in Comparison of the foregoing by *Sweat*.; for as that  
which



which falls out in the Beginning thereof, very rarely concludes the Distemper, so what after ensues of this Kind, through the other Stages, is for the most Part a *Symptom* only.

'Tis true, it may so happen, as after a Debauch or some noxious Drug taken into the Stomach, Nature sets about her own Deliverance, by instantly returning or throwing out what gave her the Uneasiness, whereby the Poison getting no farther, or not being admitted into the Blood, a Fever may be prevented: And this Advantage we have certainly gain'd hereby, that as she from the *Nausea* and Retching, gives the first Hint, so there is scarce any, where we may not with Safety pursue her Steps; and as I have already acquainted you, begin the Cure by giving a Vomit, than which the *Commentator* himself does acknowledge there is no Remedy more wholesome, or so effectual to take off the Head-ach or Sicknes, usually accompanying, whereby also not only the first Passages are empty'd, the crude Matter therein abounding restrained from passing farther, but by the Force of the Shock from the Muscles concern'd in the Operation (*which according*



to mathematical Calculation \* is equal to 260 thousand Pound weight, neither a Grain over or under) all the Bowels within reach of the same (and surely none will need to be left out) being drawn into Consent, are enabled to free themselves from any obstructing Matter, sticking to their Sides, or stopping up their finer Passages; besides which, some Particles of the Medicine, together with the diluting Liquors poured down, after insinuating into the remoter Vessels, and mixing with the Blood, the Humours heaped up therein, are fitted to be thrown out by *Sweat*, usually succeeding the Work of Vomiting †.

As to the fourth way by *Abscess* which, as *Sydenham* says, is Nature's Instrument whereby she frees the Flesh from any thing offensive, as by a *Fever* the Blood; the whole Process being her Handwork, where, by some critical Translation of the morbid Matter upon certain parts of the Body, such *Abscess* is formed, and which, according to those Parts where it is discharged, proves either *salutary* or *fatal*; this, I say, is so much

\* In the New Theory of Fevers.

† See Comment. IV. of Dr. *Freind* de Feb.



her doing, as not to be imitated by Art, who can only assist in hastening *Maturation*, when any Tumour appears that gives Encouragement thereto, which then belongs properly to the Surgeon's Province.

The fifth is by *Spitt*, meaning particularly the Expectoration, so necessary in the Diseases of the Breast, such as the *Peripneumony*, and *vomica Pulmonum*: The *pleuritic Affection*, as we have already noted, is little advantaged by such Remedies, as forward this Discharge, but in a manner wholly depends upon the Lancet; however, as helps to attenuate the Heat, and abate the Inflammation, *nitrous Medicines* with *Emulsions* may be beneficially prescrib'd: As to take off the Tension of the inflamed Membranes, *Sperma Ceti Boles* and *oily Draughts*; but of this before, and for your farther Instruction therein, I would desire you to refer to the v. Comment of this Author.

But besides this Method of Expectoration, in these *pulmonary* Diseases, there is another critical Discharge made by the *Salival Glands*, I mean that in the *flux Small-Pox*, where Nature at the appointed time, endeavours to  
throw



throw off some part of her Burthen in the Way of *Salivation*, on which the Life of the Sick depends; or which not rising at all, or suddenly declining, the Case is for the most part fatal.

Dr. Sydenham takes Notice, that about the Year 1667, a Fever appear'd which much resembled this Distemper, and seem'd one therewith, excepting the Eruptions: So that he made no Scruple to name it a *varolous Fever*, only with this difference, that as in the last, the morbid Particles were expell'd by the Glandules of the Skin, as well as those of the Tongue and Cheeks, in this, they were put off by these last only, both having the symptomatical *Sweats* at the Beginning: Nature seeming to intend no other *Crisis* in this Fever than that by *Salivation*, tho' she was often put by this Course, either by a Looseness or *Colliquative Sweats*, which were both *Symptomatical*, and did not judge or cure the Disease, any more than those at some times happening in *Pleurisies*, *Peripneumonies*, and other *inflammatory Distempers*. It is to be observ'd, that at this Time the

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Constitution favour'd more particularly the *Small-Pox* which was then *Epidemical*.

Proceed we now to the sixth, at least in our Account, which was that by *Stool*, in which there is a large Field to contend, and powerful Combatants to engage.

We have already acquainted you, that in the common *inflammatory Fever*, the Body is to be kept open through the whole Course, if not answering of itself, by the Means of lenient Clysters or lenitive Draughts, every, or at farthest, each other Day, whereby to allay the feverish Ebullition of the Blood, and secure the Brain from being affected; but in *nervous* and *eruptive Fevers*, as we just now observ'd, where the Pulse is deprest, and the Spirits languid, both these must be forborn, or less frequently enterprised, lest the *Rash*, or whatever is thrown out into the Skin, falling back, or the Patient weaken'd thereby, Nature should be too much infeebl'd to cast off her Burthen, by some more suitable way of her own choosing, or which is more agreeable to the Genius of the Fever, which for the most part is that by Perspiration.



We have also farther inform'd you, that in all of them, about the time of the Termination thereof, or presently after, so soon as his Strength will allow, he is to be purged, by which any remaining Humour, too gross possibly for being carry'd off through the Pores of the Skin, may be sent out from the *Glandules* of the *Intestines*.

But now it seems in that particular one of the *Small Pox*, we have some Physicians of great Learning, sound Judgment, and equal Probity, who have lately advanc'd a Position entirely repugnant to the Opinion of their Predecessors, *viz.* that before the time of *Maturation* is compleated, if any Danger seems to threaten, we are to begin this Method of *Purging* the Sick, and must now lay all the Stress upon these Medicines, repeated daily, or each other Day, as the Circumstances allow, or the Case may require.

I must own I have yet some Doubts upon my Mind, concerning this new Way, having so often been a Witness of the fatal *Diarrhæa's* that, about this time, have carried off so many of my Patients, in spite of all my Endeavours to bridle the same:

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Infomuch that, unless in the *confluent* sort in Infants and young Children, when (as *Sydenham* has observ'd) these Stools are a kind of Substitute to the *Ptyalism* of the Adult, happening at the beginning of the Distemper, I am always fearful of the same, since in the milder Species thereof, when all Things go as well as we can wish, nothing is so common as a constipated Belly: Nor did we think, till lately, that any of the Afflicted suffer'd for want of Stools, tho' it were for 10, 11, or 12 Days successively, or till the Suppuration of the Pustle, and the Scab beginning to dry away; but on the other hand, if before, or even at this time they fell into a Flux or Looseness, we were apprehensive Things would not go well, as Experience too often had confirm'd to us; and therefore for some Years past, when at any time about the State of the Disease, or the Return of the Fever, which is called a *second one*, I found the same high, great Thirst attending, Oppression on the Breast, *Delirium*, &c. and a Pustule rather fill'd with a crude wheyish Liquor, than *Pus*: When at these Times, I say, I have ventur'd after bleeding,



to direct a domestick Clyster of Milk and Sugar, to soften the hard Excrement in the *Rectum*, in order to relieve the Head, it has sometimes answer'd : At others (so fickle and uncertain is the State or Condition of Physick, together with that of its Professors) in the Place of one, we have had it may be ten or a dozen Stools thereby ; so that with much Difficulty the same has been restrain'd, and the Patient saved. What now must have been the Issue, had a physical Clyster (if no other than the common emollient Decoction, of which the Relations were not apprized) been thrown up, but this, that I had surely taken wrong Measures, or the Apothecary had made some Mistake, by which the Sick was thus in Danger of being destroy'd ? And truly I have been less adventurous this Way, perhaps, than many others, encourag'd by whatever Authorities, having often been a Witness of such wonderful Alterations after one Night's time, in the advance of the Pustule, its filling, and sudden change from crude to a concocted Matter, with a return also of the Spitting or Expectoration, which had ceas'd the Day be-



fore; and when, if I had adventur'd upon a simple *Clyster*, instead of *Blistering*, which I now prefer, or that more Stools than I expected should have followed; I had in all likelihood put Nature out of her way, and hinder'd the Business of farther ripening this immature Production, which she was bringing about.

But these Gentlemen tell us, they do not set upon their Purging, till she has done all she can upon the Outworks of the Skin; or that the Pustule now growing black and crusty, instead of filling more, is incapable of receiving any Humour from the Sinus of the Blood; and that in vain do we expect ripe Fruit from the wither'd and dry Branches: That therefore the Diseased has no other Chance for an Escape, than by stimulating the intestinal Fibres, to help secreting of those putrid Humours, which the *cutaneous Glands* are now unable to effect.

This, I must own, carries a *Rationale* along with it, and has seemingly much Weight therein; but when they say we run no hazard by the *purging Method*, of the swelling of the Hands subsiding, after that on the Face begins



begins to *fall*, or the Pustules thereon, before their state of Arifaction; neither yet that the Salivation will be thereby impeded, they will give me leave to hesitate a little, till I have made a sufficient number of Experiments, to confirm me in this Belief, or till I can reconcile that driving from the Center to the Circumference, and from the Circumference to the Center, are much the same; or lastly, that I am satisfied we may be able to eliminate by these Stools, those very individual morbid Particles, which Nature had intended, and endeavoured, altho' in vain, to cast out by the Skin.

In other *eruptive Fevers*, I am sure this is a most dangerous Practice; since nothing is more common than for one or two loose Stools, at these Times, to overset the Patient.

And thus, dear Sir, you have the sum of my Thoughts upon this very slippery Subject, who cannot think a few remarkable Recoveries under the *purging Regimen*, brought to countenance the Practice thereof, should avail, while we see as many People die of the Disease with a Looseness upon them (and



which alone destroys them) as can be truly said to escape thereby.

You know what our Friend *Wagstaff* has said of this Disease, that there are some whom the *Physician* cannot cure, and others, that the *Nurse* can't kill; I wish with all my Heart, that by many more dying than doing well under this hasty Purgation, we give not occasion to have the Phrase inverted: I am sure I would not have you enterprize it, but in Consultation with some, whose Character may be sufficient to secure you from Obloquy, in case of a Miscarriage: Neither then, till you are convinc'd in your own Mind, that there is room for no other way, by which your Patient may escape, and then let his Friends determine among themselves, whether this *Anceps Remedium* is not *melius quam nullum*: Nor would I be thought so great an Opposer of *Purging* (any more than *Bleeding* at these Times, when the Fever is extreme, the Breast straiten'd by the Inflammation, and the Patient under Difficulty of Respiration from the same) as to deny a laxative Medicine, that might just empty the Bowels when over costive: To which

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purpose, I usually prescribe an Ounce of *Manna* to be dissolved in a quart of pectoral Decoction, a warm Draught of which may be taken at two or three Hours distance, till the Intention is answer'd, without letting my Patient or his Friends know any thing of the Matter; and by going farther than this, or an ounce of the *Elect. Lenit.* in two or three of *Aq. Lact.* I must own I am not fully satisfy'd, whether I may not do more harm than good: As to the directing of *diagrediate* Medicines (which our Author insinuates may be safely administer'd) at a time of so great a *Phlogosis* in the Blood, manifest by the dry Tongue and scorching Heat, I can only say, *præscribat qui vult, haud ego*; and these Fears of some ill Consequence attending such Proceeding, as I have already inform'd you, are founded upon my Observation how small a number of Patients are restor'd, when seized about this time with *Diarrhæa's*, *Symptomatical* surely rather than *Critical*: Or if the last, a fatal *Crisis*, in Comparison of those who are destroy'd thereby \*.

\* See more on the same Subject in Dr. *Freind's* 1<sup>st</sup> Commentary, as also in his Epistle to Dr. *Mead*, *De purgantibus in 2 variolarum Febre.*



I had it once in my Mind, to have given you a more distinct Account of this Distemper, under its several Divisions and proper Stages; but considering it might draw me into Controversy, I chose at this time to avoid, and turn my Thoughts upon Fevers in general, which I only intended, and you desired, into a Discourse of one particular; a Task for which I own myself unfit, besides enlarging the Bounds I had set myself, I laid aside (at least for the present) any farther Intention thereof; but yet I cannot forbear taking Notice that the Species of this Disease seems of late to be unnecessarily multiply'd: For we are now vastly encreased beyond Sydenham's Division of *Distinct*, *Coherent*, and *Confluent*, into *Crystallinæ*, *Verrucales*, *Siliquosæ*, from their several Resemblances. Also *vesiculæ flatulentæ*, & *aquosæ*, compared to little Bladders, filled either with Wind or Water; or as Dr. Freind has denominated others of them, *Papulæ sive Pelliculæ rotundæ*, *Concavæ*, *Vacuæ*, *Molles*, *Vesicarum aut Folliculorum similes* \*.

\* Of which in his Epistle to the same Gentleman, *De quibusdam Variolarum generibus*.



The learned *Frenchman Helvetius*, in his *Essay* lately publish'd on the *animal Oeconomy*, reckons up also four Sorts of a *malign Small Pox*; one belonging to the *Distinct*, the other three to the *Confluent*; and differenceth them accordingly, as *malign Distinct*, and *malign Confluent*; between these comes the middle Species or *Cohesent*, which doubtless may border also on both Kinds, that is *Benign* or *Malign*; but whether each, as this worthy and judicious Man has decypher'd them, is always attended with the same Specifick or peculiar *Characteristicks*, by which indubitably we may discover them from all others, or be apprized of their fatal Tendency, merely from their Aspect, before some threatening Symptom appears, may perhaps be questionable: Or how far these Particularities may be of real Use, I do not say to the *Historian*, but the *practical Physician*, I shall leave others to determine; whilst with Respect to my own Opinion, I think them for the most part little otherwise different, than according to their greater or lesser Tendency, from a state of *Crudity*, to a more or less perfect one of *Digestion* or *Concoction*;

or



or as they happen to prove of a more *benign* or *malign* Quality or Disposition, requiring suitable *Regimen*, *i. e.* such as shall be thought most proper for aiding or assisting Nature, in disposing them to that Maturity they should, or ought to acquire.

And thus, if she by any *Lusus* or *Aberration* throws out some *anomalous* Eruption, bordering however upon this Disease; or from which we in somewise fathom her Design, what is it that the Physician can do more than help her (at least all he can) in bringing these irregular Productions to that Perfection, of which they are in their own Nature capable; to encounter the Symptoms, and support her under the *Conflict*, till she has got the Mastery, or is vanquish'd by the Enemy? What is it, I say, that the Variety or different Resemblances of these Pustules, which can scarce constitute a new Species, any more than a Monster with a human Face, a new Set of Men; or admitting them more frequent than they are, What is it, give me leave once more to enquire, that Art can do more than sedulously to attend the Symptoms, with the  
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various Appearances, and providing against the same, to bend the chief Scope to the vital Indication; making the Pulse the general *Criterion* for the *physical Regimen*, whether *cold*, *temperate*, or *hot*?

Whoever (I am persuaded) should follow that of our last mention'd Author, I mean *Helvetius*, through the several *stadia* of this Distemper, his Bleeding repeated two or three times a Day, both in the Arm and Foot, at first setting out; his Vomiting with the *Sal Stibii*, and purging three or four Hours after, with his daily clystering at some times, through the whole Course thereof; or lastly his *Beef Soups* instead of *Chicken Broth*, which was deny'd by Dr. *Sydenhum*, *quantumlibet tenue*, at the Close, would be hardly, I mean severely censur'd among us, who seldom or never run these lengths, for fear of interposing in Nature's Work at the beginning, hindering her in her *Apparatus*, or at that of Separation, much less at the Close, where she is about the perfecting, or bringing to Maturity what she has cast forth; but since you have an Opportunity at all times to scan this Method, and consult the several Cases,



Cases, in which the same is set down for our Imitation in the Treatise aforesaid, I shall leave it with this Remark, that as the best Head-Pieces for *Theory* or *Speculation*, have not been always Masters of the best and safest Practice, so I would not have you forsake our Countryman *Sydenham* yet a while, as a Guide in the *Small Pox*, till you are satisfy'd from your own Observation and Experience, (which from my own, I must say I am not) that some later Discoveries, and new Methods, will be more to the Advantage of the poor Patient, who trusts you with his Life; and for which, if negligently or inadvertently lost, you are to be accountable. It is said by some who knew him, that *Dr. Sydenham* abated of his Rigour in the *cold Regimen* before he dy'd: And it will be surely safest for you to prefer the mean, as I have hinted to you at the beginning of this, or the more temperate: It was excusable in this honest Practitioner, who seeing the People round about him, at a time when the Disease was *Epidemical*, and very raging, scorch'd to death with *Mithridate*, *Venice Treacle*, or *Treacle Water*, with the Syrup of

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Saffron,



*Saffron*, (which was the Practice of his Contemporaries) and then swelter'd up with double Quilts, Rugs and Blankets, with close Curtains, and a great Fire in the Chamber, by which the *Maculæ nigræ* and *Peteckia*, the *bloody Urine*, and other dreadful Symptoms, such as *Delirium*, *Coma*, *Subsultus*, &c. might be hasten'd; that he, I say, observing the Mischief of these *Alexipharmics*, and hot Method in general, was running upon the Reverse, not out of the *Frying Pan* into the *Fire*, but from this last as it were into the *Water*.

And here, before I quit this Subject, give me leave to correct another Mistake surely, of this admirable Man, who says \*, that he had neither seen, nor heard of any one's miscarrying in this Disease, because the Small Pox came not out at first; but that too many dy'd in whom the Disease appear'd well, but after struck in again, the Pustles at least sinking or falling, before they were ripe: In answer to which I could give some Instances, where I had sufficient Assurance, not only by

\* Sect. 3. Chap. ii.



preceding Symptoms, but the actual Appearance of a few scatter'd, but faint or pale Eruptions, that the Disease was *variolous*; and if Nature had been strong enough to have thrown out the same, there would have been a true Small Pox: The Pulse I observ'd was low and flagging, the parts of the Body cold, for want of a Fever, rather than the too great Effervescence of the Blood; the Sick complaining of Faintness, and the Pustules (of which in one, I observ'd more than an Hundred, in different parts of the Body, in the other scarce Twenty) about the sixth Day, suddenly disappearing, they died under a *Deliquium* with light Convulsions.

These certainly, if any among the Distinct, may be truly named *Malignant*, or of evil Disposition; and wherein a *warm Regimen*, with plentiful *Blistering*, but no other Evacuation, is not only justifiable, but absolutely necessary, as the more temperate and cooling in the other Species.

I come now to the seventh and last way of Evacuation, taken Notice of by *Hippocrates*, as a critical Solution of Fevers, *viz.* that by *Urine*, seldom, at least more rarely,  
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happening with us : However by its several Contents and Appearances, furnishing us with Signs, as well *Diagnostic*, in regard to some Diseases of the urinary Parts (of which more presently) as *Prognostic*, in some particular Fevers ; wherein, little Strefs surely can be laid on those Remedies we call *Diuretick* : So that shortning my Remarks upon the same, I will sum them up with this of our judicious Commentator, thereunto relating \*.

*Neque tamen ideo quod Urinam moveant, Potiones hæ (viz. diuretice) inter Evacuantia protinus reponendæ sunt : Quippe non tam vi aliqua diuretica hoc faciunt, quam quia dilutissimæ sint, uberrimeque ingestæ : ita quamvis effusissimè proruperit Urina, fieri potest, ut nullo modo exhauriantur vasa, in quibus eadem humorum mensura, Cursu perenni circumfluit : Igitur contenti sumus bono eo quo præstant hæ potiones, quod diluent, scilicet, evacuandi Virtutem, quam negavit Natura, iis ne quæramus affingere.*

I have now gone through the several *critical Discharges*, by which Nature has been at

\* *Comment, the VIII. de Feb.*



some times observed to throw off the febrile Matter, as taken Notice of in antient Times by *Hippocrates* himself; besides which, tho' not in the way of Imitation, having no Precedent from her Proceedings, Art has found out one of a more extensive Quality, and now (whether justly or not) practis'd in Fevers of all Kinds: I mean the *Blister*, of which the same Commentator has hinted to us, that although many of them give way to Evacuation only without other Remedies, yet scarce any, where the Disease rages with Vehemence, unless by the help thereof, notwithstanding as a *topical* one unheeded by that great Master of *physical* Observation *Hippocrates*: However mention'd on some Occasions in his Writings, as an *internal* Medicine.

In respect to their Use externally, or by the way of Blistering in Fevers, so far as is reconcileable to their *stimulating* Property, or in Cases where such *Stimuli* are requir'd, we have the Suffrage of almost all Parties; and seem here indeed to have the Voice of Nature; for what so fit to raise the drooping Spirits, and by lending as it were a Spur to  
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the Solids, enable them to drive on the sluggish Fluids, almost ready to stagnate in their Vessels, or giving new Life to the benum'd Parts, that they may continue the Circulation of the same? What indeed can rouse the *Lethargick*, the *Apoplectick*, the *Epileptick*, or recover Sense and Motion, lost in a manner to the Paralytic, like unto these, apply'd to the several Parts? What in the *nervous* Fevers, or *Eruptives*, with Stupidity of the Brain, Oppression at the Heart, a labouring or languid Pulse, *Deliquium* or Fainting, Chilliness of the Limbs, or of the whole Body, instead of burning Heat? Who, I say, at these Times can be so obstinately stupid themselves, as to withhold this noble, this principal Relief?

In a word, as *Laxity* of the *Solids*, and *Lentour* in the *Fluids*, a natural Consequence thereof, are the general Motives to the Use of *Stimuli*: So where either of these are present, we should not question their Utility; especially in cold Habits, such as the *Leucopblegmatic* or *Pituitous*.

And hitherto we have taken Notice of them, on Account only of their *stimulating*



Qualities, by which, as *Baglivi* in his Practice has observed, the lax Fibre is braced up; and thereby more capable to push on the sluggish Juices, as but now remark'd; which is founded upon the general Principle of the *Strictum & Laxum* of the *animal Fibre*, either *muscular*, *membranous*, or *nervous*; without any regard to the Discharge that is made thereby, which has also its Advantages; as in many *rheumatick* Defluxions, such as those particularly about the Throat and Jaws, when blistering between the Shoulders, or behind the Ears, deriving the Serosities by these Parts, gives manifest Ease to the Patient: The same in *humoural* as well as *nervous Asthma's*; also in *Catarrhs* arising from the like serous dripping out of the Glandules of the *Larynx*, exciting those irritating and troublesome Coughs, which being thus diverted by blistering the Neck, is taken off; also in fixed and stubborn Pains, how often, as it were by Charm, do we not perceive the acrid Humours, vellicating the Membranes, thus eliminated or drawn forth?

These, I say, are some of the Advantages we receive from *Blisters*, both in the way  
meerly



merely of a *Stimulus*, and the Discharge of that *serous Illuvies*, gathered under the *Cuticula* where they have been apply'd: As for their Use in the *Scall* or *Scab*, the *Impetigo*, *Papulæ*, *Læpra*, *Lichen*, their removing *Stigmata* or *Scars*, for which they have been apply'd in former, as well as later Days: I can say little from my own Experience, to countenance their Application, which, I must own, I have been rather shy of, from the Mischief I have known ensue at some times, and in some of the same Cases here laid down, where Empiricks and old Women have been at work with them.

' But these, Sir, (if we may credit some modern  
' Authors) are an inconsiderable part of the Excel-  
' lencies of the *Epispastick*, or the *Cantharides* thus  
' outwardly applied, some Parts of which being  
' got into the Blood, as the Doctor particularly  
' notes in his ninth Commentary: And which  
' it is certain they can do, by the Disturbance  
' given so frequently to the Bladder; they are  
' able to impress great Alterations in its Mass,  
' to promote the glandular Secretions, incide  
' the Lentour of the Blood, and divide its Co-  
' hesion; by which, Way is made for the Pas-



‘sage thereof, where before they were heaped  
 ‘up, and gave rise to many stubborn Obstruc-  
 ‘tions, scarce otherwise to be removed.

‘In these Cases, then, and at such Times,  
 ‘’tis evident that all the Good we receive from  
 ‘*Blisters*, can by no Means be derived to us,  
 ‘from the Discharge of *Serum*, since this might  
 ‘be effected otherwise; as particularly by *Diu-*  
 ‘*retics*, where the same in Substance with that,  
 ‘is let out by the *Blisters*; neither will like  
 ‘Benefit arise from any other vesicating Me-  
 ‘dicine, what Quantity soever of the *Serum*  
 ‘is drawn away thereby, besides this of the  
 ‘*Cantharis*.

These with other Arguments, brought,  
 however, by this learned Physician, for this  
 Practice in almost every Fever, have not yet  
 been able to convince me, but that in some  
 of them, and in some Habits of Body, they  
 have their Inconveniencies, as well as Advan-  
 tages in others; for if by *Stimuli* and Pain,  
 which in some Cases is their prime Intention,  
 they rouse the torpid Spirits, regain an E-  
 lasticity to the relax’d Fibres, and enable  
 them to quicken the Motion of the Blood,  
 as in the *Comatose* Diseases, and others, we  
 have



have already observed; what must we think of them in the contrary State of both, where the Tension is already too great in the one, and through the attending *Orgasm* or inflammatory Disposition of the Blood, the same is too rapidly and tumultuously driven upon the Vessels of the Brain, in the other; encreasing all the Symptoms, as *Delirium*, *Phrensy*, *Vigil*, and *Inquietude*, at least preventing that Repose and Slumber, so necessary to calm the Outrage of the Spirits, and appease their Disorder? What must we think of them in *meagre Habits*, in *hectic* and *bilious Temperaments*, with *great Heat* and *Thirst*, *quick and high Pulse*, *dry Skin*, *perpetual tossing about of the restless Patient*? Surely, at these Times, it will behove us to be more cautious of dilaniating or farther excruciating the miserable Patient, unless we could satisfy ourselves from *Observation* and *Experience* (not *simple Theory*) that the Good we receive from any Parts of the *Cantharides*, insinuating themselves into the Blood and glandulous Liquors, and there, as our Commentator would persuade us, making such Impression, or so altering the febrile Matter, that it may



be with more ease carry'd off by Perspiration or otherwise, and the Head, together with the whole nervous System hereby secured from the same, instead of being farther injur'd; unless, I say, we could be certain these, or any other Advantages would accrue, and recompence the Injury the Patient must sustain in the mean Time, by Reason of the Pain and *Stimuli*: For though this strenuous Propugnator for their Use at all Times, tells us, they have this above the other Evacuations, that they are safely enterprised at any Time of the Fever, which cannot be as to *Bleeding*, *Sweating* or *Purging*, without the utmost Danger, at some times of destroying the Patient; yet surely a very painful Irritation excited, when nothing is so much wanted as Rest and Quiet, cannot be deem'd a harmless or inoffensive Experiment, by which the *Dysury* on one Hand, with the Smart of the Parts they are apply'd to, on the other, are perpetually interrupting both.

I must own there are some Constitutions suffer *Blistering* with very little Disturbance, in Comparison of others, although entirely free from any *Stupor*, which for the general-



ty are the *Lax* and *Pblegmatic*; and if others can bear them well, I should not so much object against their Use, where we can propose a real Service from them; but neither can I come into the indiscriminate Practice, so commonly obtaining now among us, from whence, as I have seen, I must acknowledge, great Benefit arising to some; so also, I think, as great Mischief to others; and notwithstanding I can allow, that no other *vesicating* or *septica* Medicine, can induce the like Alteration in the Blood, from any Particles thereof, mixing with the Humours, yet must I differ herein with our Author, being satisfy'd that by their *Stimuli* or irritating Qualities, communicated through the *nervous System*, by Continuity from the Parts on which they are apply'd, they will in like Manner encrease the Tension and quicken the Motion of the Blood, as is evident by the Pulse, which lasts till the vesicated Place is digested, the Slough separates, or the Pain goes off: Nor is it known, where much of this has been occasion'd, either by the scalding with hot Water, or burning by actual Fire, that a *Symptomatic Fever* did not ensue; but I shall



take leave of this Subject, when I have inform'd you that in the generality of the *nervous* and *eruptive Fevers* belonging to that Class, altho' unattended with *Sopor*, or any *comatous* Affection, if the Patient seems hurry'd or confus'd, complaining rather of a *gravative* than *acute* or *tensive* Pain in his Head, there is scarce a more serviceable Remedy than an *Epispastic* applied to the *Occiput* (as I have already observ'd) and continued there for some Days, which in Regard of the blunt Sense of the Scalp, is also less painful than upon the muscular Parts, whether Neck or Arms, and by its constant drip, relieves the Brain, when in order to remove the *Dysury*, very often troublesome, by Reason of the *Stimulus* here longer continued; whence some Particles of the Medicine have more Opportunity of being convey'd into the Blood, and exciting that troublesome Sensation upon the *Sphincter*, you may dissolve an Ounce of *Gum Arabick* in a Pint of the *Decoët. Hordei*, and adding two or three Spoonfuls of the *Syr. de Althæa*, give a Draught, first warm'd, frequently, which I prefer to the common *Emulsions*: But this Complaint you  
may



may obviate by ordering a small Quantity of *Camphor* to be powder'd with a Drop or two of the *Ol. Amygd.* as about a Scruple or half a Dram, and sprinkled over each of your *Epispastic* Plaisters, when you shall seldom hear of a *Stranguria* or *Dysuria* upon these Occasions.

Having finish'd those Particulars you desire, it remains for me, first, to deliver some Directions, as to your Behaviour towards the Sick whom you are call'd upon to visit; and who, as he can best judge of what he feels, you must take the Account therefore from him, not suffering the over-officious Nurse, or any other at the Bed-side (as is too customary) to take the Words, as it were, out of his Mouth, or deliver, rather, some out of the way from their own: Thus dictating for him, as if they understood the State of his Case, or what he undergoes, better than himself; nay, although a light Delirium happens to accompany the Fever, I practise this Method, by which I am enabled to make a Judgment how far this Alienation of Mind extends, whether a simple Forgetfulness from a preceding Slumber, being just then awak'd,  
and



and in a kind of Consternation, as may happen at some times, or truly *Light-Headed*, as they call it, from a total Subversion of the Understanding.

When you have thus made such Enquiries from your Patient, as may give you the best Insight you can get into the Nature of his Complaint, you may then, but not before (unless the Sick can give you none himself) get farther Information from the By-standers or Attendants; and after this, sitting down by his Bed-side, take hold of his Wrist, to examine his Pulse and the Temper of his Skin, a Matter of greater Moment than is thought by some, whether hot, dry, and parching, moist with an agreeable Warmth, or a Damp with a Sort of Chill; then looking on his Tongue, at the same Time taking an exact Survey of all Parts of the Face, more particularly his Eye, that the next Day you may be better able to judge of the Alteration; from a Series of which, long continued, you will be able to presage more than at first you can imagine; for truly in many of these, I have found somewhat of the incommunicable, of which nothing but my  
own



own Eye and my own Finger could have convey'd the same Ideas to my Mind, as these have done; and it must be surely hence, I mean the Countenance, the Temper of the Skin, the Way of Breathing, the Mode or Posture of Decumbiture, with the Gesture, some or all, that certain sedulous and constant Attendants upon the Sick, who have made it their Business to observe, have hereby got the Start of many Physicians, less heedful this Way, in regard to the *Prognostic*. Thus as to the *Position*, they tell us, they very rarely find a Person dying upon his Side, for when he is no longer able to continue that, but turns altogether upon his Back, sinking down still lower in his Bed, they entertain but little Hopes of his Escape; which indeed carries much Reason along with it, as arguing great Prostration of the Spirits, or Inability longer to hold that Posture, so natural in Time of Health, but overpois'd, as it were, by the Weight of the Trunk, especially the Spine, his Body is sway'd down involuntarily into the supine one. The Gesture of the Hands and Fingers in the fumbling with the Sheets, is, you know, an old Remark, and sure



Token of impending Mortality: But it is time now you retire from the Bed-side, and call for the Urine, gathering hence what you can also, then for the Pen and Ink, if not provided (as it ought to be) already, by no means hudling over your *Formula*, (too common a Practice) but maturely weighing all Circumstances that may make either for or against the intended Remedy you are proposing in your Mind.

Consider, my good Friend, 'tis Life that lies at Stake, a Life, perhaps, on which a distressed Family, or a numerous and helpless Offspring has their Dependence, and which an inadvertent Slip of your Pen may bring to ruin; but if otherwise, or that only a single Person should be lost, by Want of that deliberating so necessary at these Times, I cannot think that a Person of your Principles, would know how even to forgive himself here, were he sure to be forgiven hereafter; and therefore as less necessary to the Man I am now writing, I shall have done with this Admonition.

Whilst in your Patient's Chamber, I would advise you to carry an even Countenance,  
left



left by the Sternness thereof, upon the Feeling of his Pulse, a Turn or Shake of the Head, at the Sight of the Urinal, much more a discouraging Word let fall in his hearing, or a Whisper to his Friends, he conceives his Case to be absolutely desperate, or through his Fears makes it truly such; but upon retiring and taking your Leave for that Time, it will be expected you should deliver your Sentiments of his Case to them, whether the same be dangerous or not, as to the Event; and where there is nothing immediately threatening, you are to give both him and them the Encouragement it will allow, especially the former, that he may support himself thereunder, by thinking better thereof; taking especial Care notwithstanding, that at no Time you make any absolute *Prognostic*, either of *Death* or *Recovery*, nor leave him, unless by unhandsome Usage obliged, under the greatest seeming Danger, as if there was no Possibility of a Recovery, which in Fevers is very difficult to warrant, where at some Times, by unforeseen Incidents, when *Art* has been baffled, *Nature* takes the Work into her own Hands, and finds a Way for a



Sort of *Resurrection*, before that at the great Day of *Audit*.

'Tis my Custom to desire the Apothecary, that he would inform me by some Means or other, under these very doubtful and desperate Circumstances, the Day following my last Visit, whether my Patient is yet alive; or if passing by, I see not the Signal of an open Window, I alight, and Step up Stairs, persuading his Friends, whilst they can get any thing down, they should attempt it, if it were but a small Spoonful, whereby languishing Nature may be a little recruited, or, if possible, reviv'd: By this Method, and refusing a Fee, I am thankfully receiv'd, and could give you many Instances, where the same has turn'd to account; for if it should happen (and who can say, unless *Omnipotence*, he has the Issues of Life and Death at his Disposal?) that after a long Dispute, she gets the Mastery, I have secur'd my end, *viz.* the keeping out some officious Person, with their *grand Restoratives*, their *Guttæ Vitæ*, and what not; (for now is the Time they will venture any Thing, being given up by the Doctor) and farther advanc'd my own Repute among them.

How-



However, at this Season, I take care that no Remedy be prescribed unless some Cordial Mixture, with perhaps  $\text{ʒiij. of aq. Lact.}$   $\text{ʒj. of aq. Theriacalis}$   $\text{ʒʒ. of Syr. Croci}$  and  $\text{ʒj. of Conf. Raleighana}$ , to be given as I said before, by Spoonfuls; for I think it to little Purpose to send in more Ammunition when the Fort of Life is upon surrendring; besides to order Medicines at a time when they can't be taken, is base and ungenerous, as to see a Table crouded with *Boles* and *Juleps*, when a poor Wretch is at the point of departing, is the most unseemly Sight that can be; but to encourage the Prosecution of this Hint I have now given you, and to forewarn you of making absolute *Prognosticks*: I could give you twenty Examples of Persons, deem'd past all Hopes, by the most eminent of the Faculty of Physick, surprizingly recover'd, some of which have set up a Quack or a practising old Woman who had got down a few Drops of some insignificant Liquor, or applied a Plaister, a *Beef Stake*, *Veal Cutlets*, a *Sheep's Milt*, or a *split Pigeon*, to the Soles of the Feet, and made them famous all their Life time after; but one, which, whilst I

was



was writing this, has happen'd, I will here impart.

A young Lady who had suffer'd many Days under what I call a *nervous Fever*, at about a Month's end from the first Seizure, having all the Symptoms of a dying Person upon her, as an *imperceptible Pulse*, *cold Sweats*, *Tremor*, *Aphonia* with *strong Convulsions*, a worthy Man of the College, who had been call'd in upon me, thought it time to take his leave, modestly alledging, that the Feeing of two Physicians was too much, when neither could do any good, the Patient incapable of receiving any Thing we could direct.

A Day or two after his withdrawing, the Apothecary desired I would come once more to take a View of the Body, for having done all under her insensibly, through the oversight of her Nurfes, she was mortify'd in near twenty Places of her Buttocks, Hips and Thighs, which how unlike soever to succeed, having scarify'd some of the deepest, I order'd to be well fomented with a Decoction of the hot Plants, and a large Proportion of camphorated Spirits, and that the same should  
be



be after drest with Pledgits dipt in the melted Liniment, *cum tertia parte Spir. Terebinth.* over which an adhæfive Plaister that might secure them; giving Charge to the Nurfes to be more careful for the future in turning her dry, and shifting the Applications which the Apothecary provided, and left ready for them, as they grew wet and fell off.

Thus for two or three Days we continued this Method, the Patient taking nothing in all that time, at least of no Signification, but lay under continual *Leipothumies*, as one dying away, for no sooner one Fit went off, but another instantly came on: Yet notwithstanding by thus diligently inspecting the Mortifications daily, and sometimes twice, the native Heat, which seem'd in a Manner extinguish'd, by the long continuance of the Fever and impoverish'd State of her Blood, by which its Balsam was destroy'd, began to rouse up, the Parts to inflame and separate at the Edges, shewing some little tendency towards Digestion, which encourag'd us still to proceed, till I perceived a laudable Matter upon several of them: Yet coming about the two or three and thirtieth Day of the



Sickness into the Dining Room, I found the Relations in Tears, who told me it was needless to go up, for that she was now dead, as they apprehended, who were about laying her out.

I was somewhat astonish'd, I must confess, that the Hopes I had so lately entertain'd, (which yet I had kept to myself) of this Escape, should be gone thus suddenly; but having seen her several Times before under the *Deliquia*, I was not certain it might be now otherwise, and even against their Wills ran up into the Chamber, where by a gentle Warmth, but much more the creeping Pulsation of the Artery, tho' little or no breathing was perceptible, or motion of the Breast, I was certain, tho' we had many Parts cadaverous, the whole was not yet become a *Cadaver*. I held a strong smelling Bottle to the Nostrils, and after some Minutes, the Water trickled from her Eyes; in a little time the Fit went off, and she lifted up her Eyelid: I call'd to her aloud, but she seem'd not to understand any Thing I said; yet I made a shift, by opening her Mouth, to get down three Spoonfuls, one after the other, before I  
left



left the Room, of a Mixture with ʒj. of the *Sal. Vol. c. c.* added to that with the *Raleigh's Confection* before mention'd, from which she grew at Night more sensible; her fainting return'd much seldomer, and was of shorter Continuance, insomuch that after few Days her Heat and Spirits reviv'd, the Sloughs cast off, and the dead Lady, by a suitable Diet, is restor'd again, to the Surprize of every one that had seen her: Whom, should we have both relinquish'd, and she had got through, under the Management (tho' this was very unlikely, considering her Condition) of another Set of People, I will leave you to make the Inference.

Sir *David Hamilton*, in his History of the *Miliary Fever*, gives us an Account of a Gentlewoman who lay for two Days, cold and stiff, without Pulse, Breathing, or any Sign of Life: Yet recover'd, but not without a Mortification on her Hips, by long lying in Bed upon the same.

On the other Side, take the following.

*Alcalinus*, as I have already, I think, observ'd, was so remarkable for his Sagacity and Penetration, as to the *medical Presage*, that



his Sentence of Death was by some esteem'd so irretrievable, that no Man could avoid the same, when pronounc'd by such an Oracle : And yet I can assure you, the first time I happen'd into the Company of this *Æsculapian Prognosticator*, it was in the Presence of three learned Physicians, who had for several Weeks attended one of my Neighbours, much exhausted by the continuance of a *slow Fever*, that had several times intermitted, and been as often put by, for some Days, with the *Cortex* ; so that at length it seemed to disappear : But the poor Gentleman growing still weaker, and a *nervous Atrophy* coming on, this famous Man was call'd in, who, after his usual Way, taking little Notice of the other Gentlemen, only enquiring what had been done, advis'd the Patient to turn them off, for that he had no Occasion for their Assistance : Instead of which, the Cook was directed to get ready a Chicken for his Dinner, with a Pint of such Wine as was most grateful to his Stomach : (For you must know he had been a Bottler) two Hours after, he was to get into his Coach and to be drove a Mile or two from the Town's end,



increasing daily his Journeys, as he found he could hold out: And thus the Doctor took his leave (having put three Guineas into his own Pocket) with the Salutation of *Do this and live*.

The first part of the Experiment being try'd, the Chicken would not go down; the Wine indeed passed, but after a little Pause, was cast up again, as almost every Thing he took; when at the time appointed, the second was also put in Execution, and he was lifted into the Coach by his Assistants, one of which sat by him; but by that time he was got to the end of the Stone Pavement, finding himself unable for the Task, he order'd his Return, where being with much Difficulty taken out, he expir'd before he could be put into his Bed.

This Case *Alkalinus* surely mistook, believing all meerly the Effect of *Inanition*, *Flatulency* or *Hypochondriacism*; like what *Sydenham* had formerly observed, when being sent for to a Gentleman subject to great Fits of Weeping, and enquiring what had past, he understood there had been a Fever, which his Physician thought was not yet removed, and therefore kept him to a poor Diet, whereby he was brought



under this exceeding Weakness, that without any Cause, he would fall a crying; of which the judicious and rightly reasoning Man, taking Notice, and farther examining the Circumstances of his former way of Living, so different from what he was now enjoyn'd, immediately relax'd his Penance, allow'd him white Meats, and a Glas of Wine, assuring him he had no Fever, nor any thing to fear thence, which was accordingly verify'd, and this involuntary Weeping quickly left him: Whether or no *Alkalinus*, I say, took this for the like Affection, I know not, but am sure, however positive of Success from his Advice, he was out in his Prediction.

I have mention'd these, as Instances, to forewarn you against absolute *Prognosticks*, as also to render you very careful how you give too much Encouragement; for it is always best that your Patient and his Friends should be rather surprized at his doing well, than at his Decease; especially if taking hold of any thing you had let fall, as to his Safety, it should otherwise fall out; but it is time I should return.

When



When you have thus done your own Duty, it will be necessary, by the strictest Injunctions, to press that of the Attendants about the Sick: I mean that they forbid them any such Liberty, as may be hazardous to them either by trespassing in Diet to gratify some irregular Appetite; or getting them up, before it may be safe for them, under the Pretext of the Bed's *soaking them*, a Term among foolish and inconsiderate Nurses, or of making it easier for their after Repose: And here I may acquaint you, that in these Fevers of the nervous Kind, I never suffer my Patient to rise, before the Dispumation is finish'd, the *Crisis* over, and the Fever itself at least moderated, if not entirely subdued; nor that he exceed his Chicken Water, Sack Whey, Panada, &c. Where they are not contra-indicated, as by a *Diarrhæa* (with one Glass of Wine in a Day, under Limitations before observed, in the nervous Fevers attended with *Deliquium* and Sweats) through the whole Course.

For believe me, Sir, as I am ready to think one third of the common People labouring more especially under the Fevers we call ner-



vous, are lost, by staying up too long: So others run as great hazard of their Lives, either by rising too soon, thinking to run away from the Fever, or keeping up the same, if not relapsing thereinto, from obstinately humouring their Palates with unsuitable Foods or Liquors: And this by the Connivance oftentimes of their Nurses, who instead of refusing them what is improper, too often lead them into these fatal Miscarriages.

In visiting poor People, let me persuade you rather to take no Fees, than undervalue your Profession, by stooping to crown Pieces, as some I have known, making a second Visit also for the same: This will be to lessen the Dignity thereof, and render you a Hackney Visitant, by which, though the Miser may regard you, yet the better Sort will overlook you, measuring your Judgment by the Meanness of your Condescension, or accounting the same as small, as the Recompence that will content you: Neither ought you now to prescribe any chargeable Drug, or pursue the *Pomp* of Medicine; for that would be Injustice even to the Apothecary, who instead of being paid for *Bezoar*, is perhaps never  
like



like to be satisfy'd for his *Contrayerva*, *Crabs Claws*, with the other *Absorbents*, or *Alexipharmicks*.

It is, you know, in the Physician's Power to do great Service to the Poor, (a glorious Office I must own it) at little Expence, and doubtless it is our Duty to consult his Ability with his Sicknefs. Wherefore in the simple or putrid *Synochus* so call'd, I prescribe the *Pulv. e chel. C. C. Sed sine Bez.* for the *Συνοχὸς*, *ubi res sunt angustæ Domi*, the *Lapis contray.* & *Conf. Lujulæ*, with some simple Diluent, as the Sage Tea, to wash down the same.

If you should now ask me, since in many Things I copy after him, why I have not follow'd *Sydenham* in remarking the various *Constitutions* of late Years, productive of divers *Epidemical Diseases*: I must acknowledge, that I have been less mindful in observing the several particular *Phænomena* of such as have happen'd for the twenty or thirty Years last past, much less from the *Epochæ* wherein that Author concludes his History, than I ought to have been: Nor do I remember any such to have fallen under my Observation, as have indicated this diverse *Regimen*, the one I mean



of being treated with *Bleeding* and *Purging*, alternately repeated, and not by *Diaphoreticks*, the other *vice versa*, otherwise at least than as reducible to those two general *Classes* of *Sanguineous* and *Nervous*: By the first, intending the *Inflammatory*, such as the *Quinsy*, *Pleurisy*, *Peripneumony*, with the *variolous* and *morbillous* Fevers, wherein the first of these Methods was for the greater Part requir'd: By the last, those *Malign Eruptives*, the *Rubeolæ*, the *Rashy* or *Marbly*, the *Miliary*, and which is still worse, the *Petechial*: Each of which I have in several parts of this Discourse, call'd by the Name of *Febris Malæ Indolis*, *vel Mali Moris*, and which have requir'd the *Cordial Alexipharmicks*, and temperate *Sudorificks*.

I know that Dr. Sydenham was so prejudic'd against this word *Malignity*, that he thought it almost the constant Offspring of a *hot Regimen* or of *hot Remedies*: Whereas I have observed these Appearances, I may say, many scores of Times, on those Bodies who have used neither *Hot* or *Cold*: But (as I have already taken Notice) have sunk rather by Means of some Evacuation, such as *Bleed-*  
ing



*ing* and *Purging*, and keeping out of Bed, without any *Regimen* whatever.

As to any particular Fever raging thus *Epidemically*, notwithstanding several have appear'd in so long a Space: Yet I cannot call to Mind that they have fallen out in any regular Series. This I know, there have been divers Seasons within that compass of Time, in which both Sorts, *viz.* the *Inflammatory* and *Nervous*, have been very popular, as well as fatal, particularly of the first Kind, the *Small-Pox* and *Measles*. And albeit, the first of these is usually more destructive, and makes the greater Slaughter among us, yet we have had those *Constitutions* which have been at Times more productive of these last, *viz.* in the Year 1733, when they exceeded the *Small-Pox* in the following Proportion, as appears by a Weekly Bill now before me, where from *March* 27, to *April* 3, I find there deceased of the *Measles* 40, of the *Small-Pox* 16. About the same Time appear'd that *Epidemick Inflammatory* Fever, which from the Parts affected, was by the common People, named the *Sore-Throat* Fever, by Physicians, *Febris Catarrhalis* also the



*Pulmonary* and *Peripneumonic* one, as it was indeed to many of the Sufferers, like that which *Sydenham* takes notice to have happen'd in the Year 1675. But the most remarkable, howbeit of the slightest Consequence, amongst the *Epidemics* of this last Age (at least in my Remembrance) was that in the Year 1712, of which, a Namesake of mine publish'd a small Tract at that time, entituled, *De Febre Britannica Anni 1712 Schediasma*; of which he writes as follows.

Apud Britannos, *Caput extulit Febris quædam Epidemia, genii mitioris, nec quod fando audiverim alicui fatalis: sed quæ ita longe lateque imperium continuavit, ut pauculas admodum familias reliquit liberas intactasve, jam licet vires suas deposuisse videatur.*

The Symptoms he recites are these, *Cephalalgia vehemens, aut saltem Capitis gravado, dorsi dolor æstuans, interdum frigore lancinans, aliquando in Artubus dolores rheumaticorum æmuli, Inappetentia, vomituro, Stomachi ac intestinorum dolor, &c.*

This Fever from the Mildness of the Symptoms and short Duration, was termed by some, *Febricula Feveret*, or the little Fever,



*Fever* ; also *Ephemera Mitis* : for as that mention'd by *Cajus*, in his *Ephemera Britannica*, or *Sudor Anglicus*, made a Sweep as it were all over the Nation : So this lessened us not scarcely by a single Inhabitant, if any tolerable *Regimen* was observed. This seems to be the same with that called the *Dunkirk Fever*, as supposed to be brought thence by the Soldiers who had been there.

Now as all these partook more or less of an *Inflammation*, so for the most part, they were taken off by *Bleeding*, *lenient Purging*, and the temperate or cooling Method in general, together with *Blistering* in the *Catarrh*, *Sore-Throat*, and *Pulmonary Affections*, as also *Linētus's* and *pectoral Ptisanes*.

We come now to the Nervous and Malign Eruptives, without which we have seldom been for any long Time, any more than the *Small-Pox*, which therefore may be deem'd *Stationary* among us : Though at some times more *epidemical* than at others, as some *morbid Fomes*, breaking forth the Bowels of the Earth, has not only engender'd, as I may say, but spread the *Contagion* among us, which was very sensibly felt about ten  
Years



Years past, or when Dr. *Strother* publish'd his Tract which he entitul'd *Practical Observations* on the Epidemic Fever then reigning: But which in my Opinion, have a juster claim to *Theoretical*, *Chymical*, and *Mechanic* ones. For setting aside these kinds of *problematical Solutions*, with his preliminary *Axioms*, foreign surely to a *practical Discourse*, I doubt the Reader will gather little Instruction, either as to the *Cause* or *Cure* from thence. But our *Sydenham* has so well describ'd these Writers, with their *Metaphorical Terms* and *quaint Expressions* (as he terms them) that I need not enlarge farther thereon, yet must observe to you, that besides the *Epidemick*, and the *Stationary* Fever, there are certain others which he calls *Intercurrents*, and which he divides by the grand Seasons of the Year, as the *Winter* Fever, the *Vernal* and *Autumnal*.

‘ The first of these, he takes Notice to be  
‘ the Effect of obstructed Perspiration, whence  
‘ the Pores of the Skin being shut, and the  
‘ Blood wanting its usual Transpiration, be-  
‘ ing burthen'd with a heap of ferous Hu-  
‘ mours, a feverish Commotion is soon kindled  
‘ there-



, therein, the Matter thus abounding, in-  
 ' flames the Breast, and a *Peripneumony* or  
 ' *Pleurisy* thence arises. If less in quantity  
 ' the following Complaints, *viz.* the Sick at  
 ' the Beginning is sometimes hot, at others  
 ' cold, he cries out of Pains in his Head  
 ' and Limbs, grows restless, his Tongue is  
 ' white, his Pulse little differing from that  
 ' of a sound Person, his Urine thick and  
 ' red, his Blood fizy like that of *Pleuriticks*,  
 ' he is troubled with a Cough, difficulty of  
 ' Breathing and oppression on the Chest, tho'  
 ' not to the Degree as in the true *Peripneu-*  
 ' *mony*. And this (saith our Author) I call  
 ' the *Winter Fever*, which though arising  
 ' meerly from taking Cold, and attended at  
 ' first with no other Symptoms, yet draws  
 ' along with it a Train of Ills, which at  
 ' length destroys the Sick, when confin'd to  
 ' his Bed, and punish'd with I know not  
 ' what cordial Things, in order to force out  
 ' Sweat: Whence *Delirium*, *Lethargy*, dry  
 ' *Tongue*, *red Spots*, and sometimes *livid*,  
 ' which are now imputed to I know not what  
 ' Malignity, though owing meerly to Mis-  
 ' management. For this Fever having too  
 ' much



‘ much in its own Nature of *Malignity*, the  
‘ Blood is still more fired by *Cordials* and  
‘ keeping in Bed, so that the Spirits are  
‘ driven into Confusion and inordinate Mo-  
‘ tions, whilst the morbifick Matter being cast  
‘ upon the Brain, all Things go to wreck.

After the *Winter Fever*, comes the *Vernal*  
or *Spring Fever*, most fertile in the *Measles*,  
and other Inflammatories, from some Altera-  
tion still in the foresaid Perspiration, as the  
*Autumn* for the *Small-Pox*, *Intermittents* and  
*Dysenteries* ; between which are the *Mid-*  
*summer* Months, as *June* and *July*: Con-  
cerning the last of which, our Author has  
these Remarks.

‘ It is always to be noted, that notwith-  
‘ standing the manifest Qualities of the Air  
‘ cannot force any *Constitution* so as to pro-  
‘ duce an *Epidemical Disease* that properly  
‘ belongs to it, for these flow always from  
‘ some hidden Disposition thereof, yet for a  
‘ Time they have Power over them: And  
‘ thus *Epidemics* may be admitted or ex-  
‘ cluded, as those manifest Qualities favour  
‘ or oppose them: But the general *Constitu-*  
‘ *tion* still remains the same, whether they  
‘ pro-



‘ promote or in some sense retard it. Upon  
 ‘ which Account it is, that whenever *Epi-*  
 ‘ *demicks* happen in one and the same *Consti-*  
 ‘ *tution*, this or that particular Disease ap-  
 ‘ pears chiefly in that Season, to which the  
 ‘ sensible Qualities in the Air have assign’d  
 ‘ it; and at length gives Place to another,  
 ‘ which the different Qualities of the subse-  
 ‘ quent Season calls in: by which Means it  
 ‘ comes to pass, that the *Stationary Fever*,  
 ‘ whatever it may be, that belongs to the  
 ‘ *Epidemick* of that Year, chiefly rages in  
 ‘ *July*, or the Beginning thereof, when it  
 ‘ seizeth many: But at the approach of *Au-*  
 ‘ *tumn*, it gives way to the general Fever  
 ‘ then popularly prevailing, which denomi-  
 ‘ nates the Season, and is less troublesome, as  
 ‘ every Year plainly demonstrates: For as  
 ‘ Men’s Bodies being heated by the forego-  
 ‘ ing Summer, the Fevers which are proper  
 ‘ to the general *Constitution*, easily invade at  
 ‘ that Time, yet at the coming of *Autumn*,  
 ‘ the prevailing *Epidemick* resumes the Go-  
 ‘ vernment, and they quite recede.

‘ Again, as the foresaid Fevers take their  
 ‘ Rise in this Month, viz. *July*, from the



‘ more obvious Qualities of the Air, so  
‘ also various Symptoms that are contrary  
‘ to their own Nature, as depending on such  
‘ general *Constitution*, are borrowed from  
‘ those manifest Qualities, happening in this  
‘ Month. And upon this Account it is, that  
‘ in those Years, wherein the said Fevers  
‘ seize upon a great many, they are accom-  
‘ panied with various new Symptoms, be-  
‘ sides those which are proper to them as  
‘ depending upon such a general *Constitution*:  
‘ Yet they continue the same, tho’ the Vul-  
‘ gar, by reason of the Diversity of those  
‘ Symptoms, reckon there is a new Fever  
‘ every Year, which peculiar Symptoms at-  
‘ tend only for a few Weeks, and the rest  
‘ of the Year those proper ones are con-  
‘ stantly met with singly, which befall them  
‘ as they are *Stationary Fevers*, of such or  
‘ such a *Constitution*.’

Give me Leave to observe farther upon  
this Head of monthly Fevers, that the lat-  
ter End of *August* and the Beginning of *Sep-*  
*tember* are the proper and customary Seasons  
for that very acute Fever (*Epidemical* in some  
Years) the *Cholera Morbus*; as if (in the same  
Author’s



Author's Words) there was something peculiar at these Times, or from some hidden Causes rather than the sensible Qualities of the Atmosphere surrounding us, or any Trespas in the *Nonnaturals*, predisposing the Juices of our Bodies, particularly the bilious, to this preternatural Fermentation or intestine Commotion.

There are some who have imputed this Disturbance to surfeiting with Fruits, then usually abounding, as among others, the *Cucumber* and *Melon*, some to the hasty drinking of cold Liquors when heated with Exercise; but that these or the like are not always the Occasion of this Disorder, appears hence evident, that the most temperate and regular in their way of living, have been alike afflicted with those who have so trespass'd. For Instance, one of the former goes to Bed well, and in the Night is seized suddenly, at this time of the Year, with enormous Vomiting and Looseness, by which in few Hours, if not assisted by Art, he is presently thrown into cold Sweats, Cramps and Convulsions, which carry him off before Morning, as I have known the Case, whilst



his Neighbour, who had possibly indulged as aboveſaid, perceives no Harm from thence.

But Thanks to a kind Providence, we have had no raging *Cholera* for ſome Years paſt, any more than a *dysenterick Fever*, nor ſcarce indeed any other, deſerving the Name of an *Epidemick*, unleſs the *Morbillous* and *Varolous*, together with the *Intermittent*. The firſt may be ſaid at this Time, *June* 1737, to be epidemic, tho' not ſo mortal as in 1733. The ſecond, tho' now alſo prevailing more than ordinarily, has been a kind of *Stationary*, keeping pretty near to the ſame Tenure, through all the Quarters of the Year, notwithstanding the great Heat in the Beginning of *May*, with as intense Cold at the End, and at the Entrance of *June*, when one Day has been extreme cold, and the next as exceeding hot : Our Nights the ſame. A manifeſt Proof this, that not always the obvious Qualities of Heat, Cold, Moisture, &c. but rather ſome imperceptible Effluvia breaking forth the Bowels of the Earth (which I rather incline to than a *Sydereal* Influx) and polluting our *Atmoſphere* with certain Particles, diſagreeable at ſome times to the Bodies of  
Men ;



Men; at others (as we have found them) to those of Brutes, more especially the black Cattle; as they are called, give rise to the several Species of *Epidemical* Diseases, under such Influence, or within their Reach: And that the *Fomes* itself, however the Blood may happen to be disposed for receiving their Impression, is not ingenite but adventitious, is plain from that Remark of the same Writer, “ that if a Stranger just before in a sound  
“ State of Health, shall visit any Town or  
“ Place infected; or under the malign Con-  
“ stitution of such an *Atmosphere*, he will in  
“ all Likelihood, partake the Fate of the  
“ same Place.” Be this however as it may happen, the several Seasons must not be overlook’d: Not so much respecting the sensible Qualities of the Air, as those secret and hidden Properties, inimical to us, and which favour one rather than another Disease. For if we may credit that accurate Observer of *Nature*, in the Production of Diseases, “ tho’  
“ there are some which appear at any Time;  
“ and which may be denominated *Intercur-*  
“ *rents*, yet others by a sort of occult In-  
“ stinct, as it may be said, of *Nature*, fol-



“ low some certain Seasons, as some Birds  
“ and Plants.” A Speculation which he  
thinks too much neglected by Physicians, tho’  
if pursued, I fear would be found investigable.

Whilst these Sheets were under my Revival,  
an Opportunity has presented for my giving  
you a light Sketch of a new *Epidemick*,  
usher’d in with the last *September* 1737, or  
rather beginning to shew itself in the last  
Week of *August* preceding the same : Up-  
on which, before I make any Remarks, I  
shall take Notice however of the Temper of  
the Air at that Time, that the better Judg-  
ment may be form’d how far the Qualities  
thereof as to *Heat* or *Cold*, or some other to  
us insensible Properties therein, gave Being  
thereto.

You know, Sir, that the whole Month of  
*August* was unufually cold, even our *Dog-*  
*Days* (as they are call’d) when commonly we  
find the greatest Degree of Heat, were re-  
markably so, till the Entrance of *September*,  
which came in with a close, and, as I may  
say, sultry Season, and so continued through  
the whole Month, a heavy damp Air, with  
almost continu’d Rains, especially a-Nights,  
falling



falling all the Time : infomuch that these two Months seemed at this Time to be misplac'd in the *Calendar*, *August* standing in the Place of *September*, and *September* in that of *August*. It was about the End of this last, that many People complain'd of Pains in their Heads with Giddiness, attended with a feverish Heat, also great Listlessness and Pains of their Limbs, like those in the Fever of 1712 before observ'd ; but upon going to Bed, and drinking plentifully of some thin diluting Liquor, they fell almost instantly into profuse Sweats, which, contrary to that Fever, took off their Complaints generally by the next Morning, and they went about their Affairs as usual in a Day or two after, without other *Regimen*, unless Bleeding, and a little Abstinence from their wonted Meals.

What I thought worth noticing, was this, that however early these Sweats broke forth, yet it was evident by the sudden Relief they gave the Patient, that they were truly *critical*, and judged *i. e.* terminated the Fever, which therefore in these People might be rightly termed a kind of *Ephmera*.



But tho' many had the good hap to come off thus at first, yet quickly after the Enteranæ in of *September*, the Fever not only spread and seized upon whole Families, many at the same Time, but the Symptoms of Head-ach and the *Lassitudo ulcerosa* grew more severe and stubborn, than at first: neither was the *Crisis* so near at hand. For notwithstanding most of the Sick were prone, especially when assisted with any gentle Sudorific and warmer Covering than ordinary, to break out into Sweats, yet they perceiv'd not that sudden Benefit thereby, as at the Beginning; the Fever still continuing for several Days, before they could get clear. The Pulse, which at first vary'd little from its natural Stroke, began now to beat both stronger and quicker, the Urine also then scarce at all differing from its natural Complection, appear'd more inflammatory, as did the Blood extracted, which was always fizy, like what we find in the *Pleurisy* and *Rheumatism*, whose Pains in some measure these resembled, tho' they seem'd rather *nervous* than *humoural*, very rarely attended with a Swelling on the Parts affected.

Besides



Besides these Complaints of the Limbs and Head, many of the Sick were troubled with an Inflammation on the *Uvula* and *Tonsils*, tho' not to that Height as in the *Winter-Fever* four or five Years past.

And this, Sir, 'was our Condition within the Bills of Mortality, in regard to our ill State of Health, occasion'd by the present Epidemic Sicknefs in this City, from its first Appearance in the latter part of *August*, to the close of this present *October*, when the cold Weather, with a clearer and dryer Air, seems in great measure to have extinguish'd the *Fomes*, at least has given a Check thereto: I said within the Bills of Mortality, because I have made my Calculation thence, altho' I know the same Fever reach'd unto distant places.

It is from these Bills I perceive that in the Height of this Sicknefs, about the midst of *September*, they were almost double to that of a healthful Standard: having then reach'd to 861, as appears by that from *Tuesday* the 13th, to the *Tuesday* following, viz. the 20th, and that the same Encrease was owing to the particular Article of *Fevers*, you will collect from the following Bills:



6.	} Fever	{	161.
Sept. 13.			201.
20.			229.

From hence they began to decrease in the said Article, in Proportion, to the 25th of *October*, where the same is enter'd 191.

And what I observ'd farther of this Fever was, that, when at the highest, as on the 20th of *September*, the *Small Pox* was got up to 80, more than double the Number to that in the Week following, when the Fever was fallen to 167, the *Small Pox* to 31, as if there was some Affinity in the inflammatory *Pabulum* or *Fuel* giving rise to both, or that each partook, at least in some Degree, of the same Inflammation.

I now come to the Method of Cure, and, as the common People in all sudden Attacks from an obstructed Perspiration, or what they call catching of Cold, fly usually to the *Treacle Water* and *Syrup of Saffron*, in order to force Sweats, so did they commonly at this Time, and with better Success also than in the *varolous Fever*, wherein they too often place their Confidence, to the Destruction of the Patient.



Patient. For as this Fever was so naturally determin'd by these early Sweats, this Remedy with plentiful diluting, both forwarded this Discharge, and supported the Sick under the same; differently from that other Sickness, which requires a longer Time in the *Apparatus*, as well as for the Expulsion of the morbid Particles, and which, by this early Colliquation, confounds Nature, and (as observ'd but now) destroys the Sick of those Diseases.

The next Day, if they found themselves no better, or that the Pains continue, they let Blood, and, two or three hours after, take a Purge, which finishes the *Regimen*, and by which, with a little Abstinence, many of these People got the better of their Illness.

The Method which I took with them, was the following, viz. if I was sent for at the Beginning, which was but seldom, I prescrib'd *Venæsection* to  $\bar{z}$ ix or x, and the same Evening a Draught *ex*  $\bar{z}$ j. *Aq. Laët. Alex.*  $\bar{z}$ ss. *Aq. Theriacal. cum*  $\bar{z}$ j. *Syr. Limon.*  $\bar{z}$ j. *Pulv. e cbel. cum.* C. which was repeated in the Morning, the Patient keeping in his Bed, where the Sweat, as aforesaid, breaking easily forth,



forth, quickly freed the Sick of his Complaints, at least for the most part, assisted by the free drinking of small diluting Liquors, and a few Days Abstinence : But if the Pains continu'd on the third Day, I repeated bleeding, and where the Head was much affected, or the Thorax inflamed, a Blister was applied *inter Scapulas* ; tho' it was not often at this first Appearance of the Distemper, that either this second bleeding or blistering was call'd for : In the mean Time, if the Body was costive, I gave ℥ss of *Lenitive Electuary* with a Draught of thin Gruel or of his Sack-Whey, which rarely fail'd of procuring one Stool and sometimes two.

When the Patient was afflicted with *spasmodick* Pains on the Chest, as well as those of his Limbs, I found *Volatiles* gave the speediest and the greatest Relief, such as the *Sal Volatile C. C. gr. vi. vel viij. cum ℥j. Sper. Ceti ac tantillo Syrupi cujuslibet pectoralis*, or the *Volatile Cream* compos'd in the following Manner :

℞ *Aq. Pulegii, Ol. Amygd. dulc. ana ℥ij. Spir. C. C. per se ℥j. Syr. Bals. Tolut. ℥ss. M. phialam perper concutiendo.*

Of



Of this the Patient took a large Spoonful every three or four Hours, with a warm Draught of a common pectoral Apozem drank upon the same: Which I have known to succeed well in the *Rheumatism* also, especially where the Trunk of the Body happens to be affected.

But altho' these and the like Methods took Place at the first Onset of the Disease, yet after thus raging for a Month or five Weeks, as I observ'd but now, it not only prov'd more stubborn, but began to appear more threatening and of a malign Disposition. The Sweats were interrupted, going off and coming on by Turns, or when continued, seem'd rather symptomatical than critical: Nature now aiming at a different Discharge of the morbid Particles, either by *Inflammation* or *Abscess*; by the first I mean the *Erisipelas*, either on the Face, Legs or Arms: By the last the *Phlegmon*. Of the former I visited four Persons on the same Day, with their Faces so swell'd that they could not see; two of them died comatose, the Inflammation extending itself on the *Meninges Cerebri*: The other two got over it, tho' with great Hazard of  
their



their Lives. Two others I was call'd to with the Inflammation on their Arms after bleeding, where, although no Error had been committed by the Lancet, the same with Tumefaction encreasing, a Mortification ensu'd, and destroy'd both. So prone was the Blood at this time to a gangrenous Disposition, that though the *Cephalick* Vein had been open'd in both, the Tendon clear, and the Orifice not so much as fester'd, nor in the least painful, yet a Fluxion (invited by the Ligature rather to that than the other Arm) came presently on and killed the Patient. The same Surgeon who attended one of these, told me he had a third upon the like Occasion, had compounded for Life by a large *Phlegmon* he had then just open'd below the Cubit. These Instances made me very circumspect how I directed *Phlebotomy* after, to these Patients: Preferring *Blistering* and temperate *Alexipharmicks*. I had a Patient in *Shoreditch*, where an *Erysipelas* fell upon the Leg, and after that was discuss'd, an *Abscess* soon after form'd itself higher upon the same Limb. About the same time I was told by a Surgeon in *Spittlefields*, that he then attended



tended two Patients, the one with an *Abscess* in the *Axilla*, the other in *Inguine*: Both critical Translations of this then reigning *Epidemic* Fever. These Matters duly weigh'd, gave me some Apprehension that those Symptoms might be the Forerunners of some still more contagious and fatal Sickness, especially having observ'd on two or three Patients the true *Petechiæ*, a Day or two before they died. And examining our Bills I found that Article of the *Spotted Fever*, in every one after the second Week of this Fever appearing among us: Where on the third Week are enter'd 5. on the fourth 6. the fifth 3. the sixth 5. the seventh 2. the eighth again 4. the ninth 3. And tho' I pay not much regard to our *Searchers Reports*, who often mistake the *Rubeolæ*, *Moles* and *Fleabites*, for these Spots, yet having myself been a Witness of them, I am rather inclinable to believe there was too much ground for such Report. However the approaching Winter may very probably check the farther Progress of this *Epidemick*, and render (it is to be hoped) these Appearances less frequent among us.

About



About the time when this Fever was at the heighth, the following Case presented, which by reason of some *anomalous Symptoms*, and the length of Time it ran out, I kept the *Diary* with which I here present you.

A Gentleman about 40, of great Worth and Repute among his Neighbours, was seized with an *Erysipelas* on his Foot and Leg, together with a Symptomack Fever, for whom I prescrib'd as follows.

℞ Summit. Centaur. Hyper. Flor. Chamomel. Melilot. Sambuc. a Mj. Coqtr. in aq. Font. q. s. pro Colaturæ ℥iij. cujus tertia pars reducatur ad Pulverem cum q. s. Farinæ Fab. dum reliqua pars reservetur pro Fotu, addendo tempore Usus Spir. Vini Camphorat. ℥ij. singulis ejusdem libris, et illinendo partes inflammatas, (post Usum Fotus) cum litu sequenti priusquam Cataplasma applicetur.

℞ Ungti, e flor. Sambuci ℥j. Spir. Vini Camph. ℥ij. m. f. Linimentum,

Having



Having thus provided for the topical Application, I directed this Cordial Draught.

R *Aq. Lact. Alex. ℥j. Theriacal. ℥ss. Syr. Croci ℥j. pulv. e chel. Canc. C. ʒj. m. f. Haustus, sumendus Vesperis et repetendus Mane.*

Sept. 16, 1737.

D. T.

*For Mr. ———*

The next Day, the Inflammation seeming to give way; in order to carry off the bilious Humour, by a lenient Purgation;

R *Tinct. Rhei Vinò alb. Extr. ℥j. Syr. Ros. Sol. ℥ss. m. f. potio Crastino Mane sumenda.*

Sept. 17, 1736.

D. T.

*For Mr. ———*

The Day following, observing he had only one physical Stool from the former Potion;

*Repetatur Tinctura Rhei Crastino Mane, et sic ad duas alias Vices, (pro modo Opera-*

X

*tionis,*



*tionis) singulis vel Alternis Auroris, sumendo Haustulum Cordialem singulis noctibus.*

Sept. 18, 1737.

D. T.

For Mr. ———

By these, the Inflammation was dispers'd, and I thought all danger over, having taken my leave: But on the 23d I was sent for again, and found my Patient's Fever return'd, his Head in some Disorder, and his Spirits as it were hurried. Upon which I wrote the following Bill:

*R. Aq. Lact. Alex. ℥i℥. Theriacal. ℥℥. Syr. Croci ℥j. pulv. Lapidis contray. ℥j. Castor. rus. opt. gr. v. Sal. Vol. ol. gut. x. m. f. haustus, sumendus et repetendus sexta quaque hora.*

*Applicetur Vesicatorium inter Scapulas b. f.*

*R. Aq. Lact. Alex. Ceras. Nigr. a ℥iv. Pæon. C. ℥ij. Margarit. pp. Sacch alb. a ℥j. m. f. Julapium. Cujus capiat Coch. iv in languoribus, Vitrum agitando tempore Usus.*

Sept. 21<sup>o</sup>, 1737.

D. T.

For Mr. ———

The



Let. II. *Concerning* FEVERS. 311

The next Day being inclin'd to Stools, the following Provision was made for the same :

℞ *Aq. Cinnamom. ten. ʒij. Conf. Fracast. f. m. ʒj. f. mixtura in promptu, cujus capiat Cochleare largum (phialâ prius agitâtâ) post singulas sedes liquidas. Pergat cum haustibus ultimo præscriptis nec non Julapio perlato in languoribus.*

Sept. 22°, 1737. D. T.

*For Mr. ———*

On the 23d, falling into profuse Colliquative Sweats, and his Bowels still over lax,

℞ *Julapii Cretacei Bat. ℔j. Aq. Cinnam. ten. ʒij. m. f. Julapium. Cujus (Vitrum concutiendo) capiat Cochl. v. vel vi. in intervallis, præcipue post sedem liquidam, aut Sudoribus oppressus.*

Sept. 23°, 1737. D. T. *For Mr. ———*

*Pergat cum Reliquis.*

On the 24th, he complain'd of a Pain on the upper part of his left Thigh, on



the inside, stretching up to the Groin where, upon pressure, we discover'd an Induration deep among the Muscles; but no Inflammation, which we order'd to be well embrocated with the *Opodeldoch* Ointment, and prescrib'd only as follows.

*Repetatur Haustus Cordialis ultimo præscriptus.*

Sept. 24<sup>o</sup>, 1737.

D. T.

For Mr. —

The Day following, his Complaint on the Thigh continuing, the part was cover'd with a Plaister of the *Gums*, in hopes either of discussing or bringing the Tumour to *Maturation*, and the same *Alexipharmic* Draught, as before, with a lenient *Clyster* in regard now, of his Over-costiveness, *ex ʒj. Elect. Lenit. et ʒxij. Decoct. Com. pro Clystere*, but on the 27th he grew still more languid, his Pulse flagging so that in Consultation this Day with Dr. *Jurin*, it was concluded a warmer Medicine was requir'd, together with the *Volatile Salt*, in order to throw out the Malignity by the Pores, and to assist Nature in



in forwarding an *Abscess*, which she seem'd to aim at, but had not strength to compass. For which end the Induration was now cover'd with a Plaister of the *Mucilages*, spread thick with a broad adhesive Margin, to secure the same, and Blisters to the Arms.

The Draught here follows.

R *Sal. Vol. C. C. gr. vj. Conf. Raleighanæ*  
*ʒj. Aq. Lact. Alex. ʒjß. Theriacal. ʒß.*  
*Syr. Croci ʒj. m. f. Haustus, vj<sup>a</sup> quaque*  
*hora repetendus.*

*Continuetur Usus Julapii perlati, in languoribus.*

Sept. 27, 1737.

J. J. D. T.

*For Mr. ———*

But his Stomach refusing the Volatile Salt, this Bolus was the next Day substituted in its place, and continued on the 29th.

R *Pulv. Lapidis contray. ʒj. Croci angl.*  
*Castor. rus. ana gr. v. Conf. Alker. q. s.*  
*m. f. bolus vi<sup>a</sup> quaque hora sumendus cum*

X 3

*Cochl.*



*Cochl. iv. Fulapii perlati quod in promptu est.*

Sept. 28, 1737.

J. J. D. T.

For Mr. —

On the 30th he was seized with a Convulsive *Rigour* and a *Singultus* intervening, when we directed thus:

℞ *Flor. Chamomel. pulv. ʒj. Sal. Absinth. ʒβ. Ol. Nuc. Moscat. Chym. gut. i. Syr. Croci q. s. m. f. bolus statim sumendus et repetendus quarta quaque hora cum Cochl. iv. Fulapii perlati.*

Sept. 30. 1737.

J. J. D. T.

For Mr. —

The *Rigours* now returning oftner, and at uncertain Periods, as well as the *Singultus*,

℞ *Phylon. Rom. gr. xv. Aq. Lact. Alex. ʒjβ. Aq. Pæon. C. Syr. Croci ana ʒij. Sal. Vol. Ol. gut. xx. m. f. Haustus sexta quaque hora repetendus, nisi prius cessaverit Singultus, quum pergat in Ufu Bolorum heri præscript. addendo singulis, Castor. gr. v.*



*Applicentur Epispastica Brachiis infra Cubitos.*

R *Aq. Regin. Hungar. Laud. liquid. ana ʒj.*  
*Camphor. ʒʒ. m. pro Epithemate ad Scro-*  
*biculum Cordis & superponendo pannum*  
*Scarlatinum ex eodem expressum.*

Oct. 1, 1737.

J. J. D. T.

For Mr. —

On the same Evening finding these nervous Complaints increas'g, I prescrib'd by myself.

R *Tinct. Sacre ʒjʒ. Tinct. Castor. ʒj. Syr.*  
*Pæon. C. ʒʒ. m. et capiat Cochleare lar-*  
*gum statim et alterum Bolorum spatiis in-*  
*termediis usque dum Alvus fuerit solutus.*

Oct. 2.

D. T.

The *Hickup* now exceeding tiresome by its frequent Returns ;

R *Sal. Vol. C. C. ʒj. Moschi gr. v. solve in*  
*Aq. Ceras. Nigr. ʒiij. Pæon. C. ʒj. Syr.*  
*Croci ʒij. m. sumat Cochlear unum redeunti*  
*singultu, et pergat in usu Haustus heri præ-*  
*script. sexta quaque hora.*



I should observe, that the Day before, upon taking off the Plaister, the Induration was insensibly dissolv'd; the Tumour falling lower down, so that despairing now of any *Apostemation*, we order'd the whole Limb to be well embrocated with the foresaid Ointment, and wrapping the same up in Flannel, heard no farther Complaint thereof.

On the third, in regard of his over-costiveness, we wrote as follows:

*℞ Tinct. Hier. ʒvj. Syr. Ros. Sol. ʒij. m. f. potio statim sumenda. Repetatur Haustus ex Phylonio hora v<sup>a</sup> pom. et v<sup>a</sup> matutina cum bolo ultimo præscripto hora xi<sup>a</sup> mane in Cochl. iij. aut iv. Julapii præscript.*

Oct. 3, 1737.

J. J. D. T.

For Mr. \_\_\_\_\_

The same Evening, however, finding him exceeding faint with a depress'd staggering Pulse, tho' he reason'd strongly, and was able to turn himself in Bed, I varied the Prescription thus:

*℞ Aq.*



℞ *Aq. Laët. Alex. ʒiʒ Theriacal. ʒʒ Syr. Croci ʒij. rad. serpentar. Virg. pp. ʒʒ. Conf. Mithridat. ʒj. m. f. Haustus sumendus sex horis elapsis post haustum ultimo præscript. et repetendus dein sexta quaque hora.*

Oct. 3, 1737.

D. T.

For Mr. ———

The next Morning meeting again in Consultation :

℞ *Conf. Mithrid. ʒʒ. Sal. C. C. ʒʒ. Aq. Ceras. Nig. ʒij. Pæon. Syr. Croci ana ʒij. m. f. Haustus sexta quaque hora repetendus.*

*Applicentur Epispastica Suris internis.*

℞ *Rad. serpent. Vir. ʒij. Coccinel. gr. vj. Aq. Theriacal. ℥ʒ. infunde calide ac clausè. Colaturæ adde Syr. Croci ʒʒ. et sumat Cochleare unum Haustuum spatiis inter- mediis.*

Oct. 4, 1737

J. J. D. T.

For Mr. ———

On



On the fifth we found our Patient as the Day before, in the same weak and declining State, and prescrib'd in Form following :

℞ *Conf. Raleighanæ* ℥j. *rad. serpentar. Virg.*  
 ℥℔. *Syr. Croci* q. s. *m. f. bolus sumendus*  
*et repetendus sexta quaque hora cum Ju-*  
*lapio ut prius.*

℞ *Empl. Cephal. p. tres Epispast. p. unam*  
*m. f. Emplastra totis pedibus applicanda.*

Oct. 5, 1737.

J. J. D. T.

For Mr. —

On the sixth his *Spasms* remitting, as also the *Singultus*, he complain'd of an incessant Cough, which had hinder'd his Repose the Night preceding, attended with a Catarrh, so that he was discharging a clear Lymph rather than Phlegm or Mucus : as if Nature miscar-rying in her first *Crisis* by the *Erysipelas* on the Leg, as well as her second from the threatening *Phlegmon* on the Thigh, was now aiming at a Despumation of the Blood by this Glandular Secretion from the *Larynx*, *Pharynx* and o-ther the extreme Parts of the *Fauces*, to mo-  
 derate



derate in some measure the *Stimulus*, and make Revulsion of the Humours from the said Parts, we prescrib'd now in this Manner :

℞ Ol. Amydg. d. Syr. de Mecon. ana ℥j. Conf.  
Ros. ℥ij. m. f. Linctus de quo sumat Coch-  
leare unum subinde, vel magis urgente Tussi,  
sensim deglutiendo, et postea bibat Haustu-  
lum calidum Decocti Pectoralis communis.

℞ Aq. Lact. Alex. ℥j℥. Theriacal. ℥℥. Syr.  
Crocī ℥ij. Conf. Raleigh. ℥j. rad. serpent.  
℥j. m. f. Haustus sexta quaque hora ut antea.

*Applicentur Epispastica juxta Aures.*

Oct. 6, and 7.

J. J. D. T.

*For Mr. —*

Which Prescription was pursued the Day following.

Upon this last Day, in the Evening, when I made him a Visit by myself, I found him complaining of some Difficulty in swallowing, his Speech being alter'd, which made me now  
appre-



apprehensive her last Effort would be an *Aphthæ* : and upon inspecting his Throat, I discover'd the *Uvula* tumid and inflam'd, and the Parts about lin'd with a tough *Mucus* : when coming again the next Morning, I perceiv'd the Thrush extending over great Part of the Arch of the Palate, as well as on the *Tonsils* ; wherefore I immediately order'd the Gargarism here enter'd to be thrown frequently in with a Syringe.

*Rx Decoct. Pectoral. ℥j. Mel. Ros. ʒj. m. pro Gargarismo quo frequenter utatur.*

On the 8th, in Consultation, finding he had been several Days without a Stool :

*R Elect. Lenit. ʒj. solve in Decoct. Com. ʒxij. et f. Enema injiciendum Vesperi, nisi prius deposuerit Alvam.*

*R Conf. Mithrid. ʒj. lapid. contray. gr. xv. Syr. Croci ʒj. Aq. Lact. Alex. ʒjʒ. Theriacal. ʒʒ. m. f. Haustus sexta quaque hora repetendus.*

Oct. 8, 1737. J. J. D.T. For Mr. —  
Upon



Upon the 9th looking again into his Throat, we began to despair of any salutary *Crisis* by this *Aphthæ*, which, instead of appearing white, loose, or tending to Separation, look'd of a dusky Brown, thicken'd and extending itself over the inside of the Cheeks, the Lips and Tongue; and by our Patient's Complaint we had reason to believe the whole Passage of the *Gula* invested therewith: so that thinking it a lost Case, we prescrib'd only the following, with the same Gargarism to be continu'd.

R. Conf. Raleighanæ ʒj. Aq. Lact. ʒiiij. Theriacal. ʒj. Syr. Croci ʒß. m. sumat Cobl. duo secunda quaque hora.

Oct. 9, 1737.

J. J. D. T.

For Mr. \_\_\_\_\_

However the same Evening, by the Persuasion of some Friends, a Gentleman was appointed to meet us, who practiseth mechanically, to whom freely communicating what we had observ'd from the first, as well as what we had prescrib'd from Day to Day, in the Progress of the Distemper, he deliver'd his Opinion that nothing was to be done but by



powerful Alexipharmicks, to keep up Sweats, assisted with more Blisters. We then enquir'd whether he had any better to offer than what had been administer'd? and that we had never wanted Sweats from the first Day to the present, which had sometimes exceeded: nor had we been deficient in blistering, as would appear by our Bills. At length hearing us mention that Induration on the Thigh, directing himself more particularly to me, you should, Sir, faith he, have forc'd an Abscess on that Part, which might have sav'd his Life. I answer'd him short, *Necne favente Natura? vel illa monstrante Viam*: and that I thought he could not be a Stranger to the old Physical *Axiom*, *Nil repugnante Natura*, that she might be led, but would not, nor could be forc'd: And farther, that we had encourag'd all we could such *Abscess* by the Gum and Mucilage Plaisters, but to no Purpose, the Induration dissolving under the same. That as to saving the Patient's Life thereby, it was more than he or any Artist could warrant, considering its Situation so deep among the Muscles, and so near adjoining to the crural Artery, when such Apostemation had in all Likelihood terminated

in



in a *Fistula*, which, by its Discharge, at long run might have brought on a *Marasmus*, and sunk him that Way.

After this Velitation, we enter'd on our Consultation what could be done farther, and a light Dispute arising, whether the *Rad. Serpentar.* or the *Crocus* was the better *Cardiac* and *Alexipharm*? Our *Mechanician* preferr'd the latter, which was prescrib'd in the Form following, together with more Blisters, and a Mucilage for the Throat, the same Gargarism to be continu'd.

℞ *Aq. Lact. Alex.* ʒjβ. *Theriaca.* ʒβ. *Conf. Raleighanæ* ʒj. *Croci* ʒβ. *Syr. Pæon. C.* ʒj. *m. f.* *Haustus sumendus et repetendus quarta quaque hora.*

℞ *Mucilaginis tenuioris Sem. Cydon. in Aq. Hordei Extr.* ʒiij. *Syr. de Rub. Idæis* ʒj. *m. et deglutiatur Cochlear gradatim, sæpius repetendo. Applicentur Epispastica Suris externis, continuetur Usus Gargarismi.*

Oct. 10, 1737.

J. J. T. M. D. T.

For Mr. —

At



At Night his Phlegm growing tough and difficult to raise ;

℞ *Decoct. Peēt. ℥ij. Aq. Cinnam. ten. ʒj.*  
*Oxymel. Scyllit. ʒʒ. m. f. Apofema, cujus*  
*bibat Haustulum tepefaētum subinde.*

Besides which there was a Mixture *ex ʒj. Mel. Ros. et ʒij. Tinct. Myrrh.* to touch the Parts of his Mouth and Lips which were now overspread with a deep Gangrenous Slough, if possible to check the Putrefaction ; but all to no Purpose, for we might truly some Days before, have pronounc'd the Sentence of *Conclamatum est.*

The eleventh, which was the last of our Consultations, and the last of our Patient's Life, we wrote the following, and took Leave.

℞ *Aq. Laēt. ʒiiij. Theriacal. ʒj. Tinct. Serpentariæ præscript. ʒij. Syr. Croci ʒʒ. m.*  
*Sumat Cochleare unum frequenter.*

Oct. 11, 1737.

J. J. T. M. D. T.

For Mr. ———

You



You will think, perhaps, I am too prolix and particular in reciting a Case fatal in the Issue thereof; but you will consider, I hope, that every candid Writer of Observations ought to inform his Reader, as well of his bad as of his good Success: otherwise the young Practiser may be sometimes too bold in his *Prognostick*, and to think that in every parallel Case, at least such as he may deem so, if he pursues the same Method of Prescription, he must consequently succeed, and recover his Patient.

I am indeed often jealous of the Sincerity of these Writers, who let us into so many wonderful Recoveries and great Cures, but conceal all their Miscarriages and Disappointments: Besides, it is necessary you should be inform'd of the several Turns, Shiftings and Changes in a Disease, by which Nature makes some feint Attempts (however fruitless) to free herself from her Enemy, as well as of the various Forms of Prescription, to answer the same general Indication, and to be prepar'd to obviate the various Symptoms arising in the several Stages of the Disease: For tho', as I have observ'd in another Place, when Matters



are moving right, it would be imprudent to alter the Form ; yet the Patient growing worse, tho' the same Indication is to be satisfied, yet it is surely prudent, it is, I may say, a very honest and justifiable Amusement, to keep up his Hopes and Expectations, that a new Remedy may effect what the former had fail'd in : and to be able to vary a Prescription in such Manner, will demonstrate the Judgment of the Physician, as well as distinguish him from the illiterate *Empirick*, or ignorant *Quack*, who has often but one Remedy, not only for the same, but even every Distemper whatever, or where-ever seated.

Upon a Review of the foregoing Case, I find there are three material Particulars, wherein I have not been so exact as I might have been, in my Diary thereof, I mean the *Pulse*, the *Urine*, and the *sensible Perspiration*.

As to the first, thro' the whole time of Decumbiture, however quick, the same was even and regular, without *Stop*, *Tremor*, or *Subsultus*, notwithstanding the *spasmodick* or *convulsive Rigours* and *Singultus*, the Urine as little varying from first to last, almost always turbid, and loaded with Contents, sometimes  
letting



letting fall a kind of *lateritious* Sediment, like that of the *Intermittent*, but never quite clear at the Top ; which gave us Hopes of the *Proteiform Fomes* shewing itself at last, and giving us an Opportunity of administering the Cortex. It was now we substituted the *Flores Chamomel. Sal. Absinth. cum Ol. Nuc. Mosc.* in its place ; but a Day or two after, tho' the Sediment remain'd, yet the Convulsions (in which he was still sensible) doubling upon us, with irregular Returns as well as the *Singultus*, we laid even that Remedy aside, betaking ourselves wholly (as you may observe) to the *Cordial* and *Alexipharmick* Medicines. The like Remark might be made on his Sweats, which were seldom off, unless at the Approach of the Spasm, and during its Continuance, thro' the whole Course of the Disease : His Mind tranquil, and his Reason strong till the Day before he died, when he began to falter and lose himself : In a Word, tho' this Fever might be number'd among the *Nervous*, and shew'd itself manifestly of the malignant Kind, yet there appear'd no Eruptions whatever on the Skin, whether *rasby*, *miliary*, much less *petechial*, the Matter thereof being so impli-



cated with the Blood and nervous Juice, that tho' she was making several Efforts, yet Nature was unable to separate the same either by a Congestion thereof in one particular Part, or by a Distribution of the same into more subtile and finer Particles, and throwing them out to the Confines the Body.

After this long, but I hope no unpardonable Digression, I shall return, secondly, to your Conduct among those who are your Patients, or make use of you when they are sick, where I would never have you over familiar, at least not so as to be often at their Tables; for this in time will also make you cheap; and there are those who instead of seeing you handsomely, will be apt to place your Visits to the Account of their Civilities, and treat you rather as their *Friend* than *Physician*. Be affable with them and sociable as you will, but cautious how you dip your Finger in their Dish, or take a Bottle at their Cost.

And as for your general Conversation, take this Hint, that you never openly espouse the Interest of a *set Party* in their *Maxims about Government*: Or shew a forwardness to be distinguish'd that Way. *Fear God, and Ho-*

*nour*



*nour the King*, but take care of yourself, as well as of the Sick, with whom you are entrusted, and meddle not in *Party Quarrels* or Disputes.

I have liv'd to see both Sorts take their Turns, and tho' their Pretences have run high for *Patriotism* and *publick Good*, yet too many of either Side have fallen short, and made all to center (when they have got footing) in their own, and their Favourite's *private Advantage*: So that I now distinguish my Fellow-Citizens, only as *honest*, or *designing* Men; regarding the former, as I am sure you will do, and avoiding the last, however in such wise, as may give the least Offence,

Above all Things, dear Sir, you ought not to be afraid, nor yet asham'd of your *religious Principles*; however you keep those of *Politics* to yourself. It can be no Disgrace I am sure, (to how great a Height of Impiety soever our present Age is arriv'd) for a Physician, who owns himself at all Times no more than *Nature's Minister*, to acknowledge himself also the Servant of *Nature's Master*: But I fear (as I have before taken Notice) we have *natur'd* it so long, some of us, as to think



even this *Nature* means no other than an *absolute Fatality*, where *Laws* are so irreversibly establish'd, that the Supreme Power, or *Law-giver* himself, has now no Power left, either to abrogate or suspend them ; but that all is hurried on by a blind Impulse, (*because the Sentence is not immediately put in Execution against the Impious*) like that of the Heathen *Destiny*, ever to continue as Things stand at present ; or the Principles being worn out, and dropping to Pieces, the World of Matter is to fall into its primitive *Chaos*, and the *World of Life* to a State of *Annihilation*.

So far as we can judge by the Practice of some, they must set out upon such like Foundation, else how can we imagine they should enter the Chambers of the Sick, with a D—n it, what a Pulse is here ? Z—s what a Urine ? or with Grimace break some sorry Jest at the Bedside, as I have been Witness of ? But such Mens Conversation you must shun as the Plague, for fear of Infection. Nor need you apprehend that any one of Candour and Ingenuity will think you less qualified for your Profession, on Account of your *Morality*, or sober Deportment ; less learned for not being

*Atheistical*



*Atheistical* in your Discourse : less judicious, for your Diligence and Circumspection in the Discharge of your Duty to the distressed ; or, in a Word, less accomplish'd, because you want only the Qualifications of a *Rake* or a *Buffoon* : So far from it that I am satisfied you will be had in greater Esteem, even by those Men themselves, who, vicious as they are, cannot be ignorant, that if the rest of the World were to run upon their *Biafs*, neither their own Lives nor Fortunes could be long secur'd to them : And now give me leave to conclude with the following Qualifications I judge necessary for him that is entering upon this noble Profession, or who deserves

*The Character of a good Physician.*

First, I think he ought to be a Person of solid *Erudition*, and a *sound Judgment*, (if to this a *Genius* for Physick, or a natural Talent that Way could be purchas'd, much Pains and Labour might be spar'd) expert in *Anatomy*, and frequent in the Dissection of *morbid Bodies*, as also well read in the *History of their Diseases*, careful in making his *Observations* there-



on, or diligent in remarking such as may be of after use to him.

Secondly, He must be a Person of strict *Probity* and *Fidelity*, Master of the best *Morals*, by no Means babling in private, much less in his publick Conversation, the Weaknesses or Infirmities of either Sex, which have been communicated to him, or about which he has been consulted: For as *Helvetius* has rightly remark'd, a thorow Experience in the Knowledge and Cure of Diseases, with a large Stock of *Prudence* and *Probity*, will furnish such a Physician as may be able to discharge with a good Conscience the Duties requir'd of him. Upon which Account it is that I would have him to be

Thirdly, A Person of the greatest *Honour*, as well as *Gravity* and *Modesty*.

Fourthly, He should be *Courteous* to all, yet know how to keep that becoming Distance with his Patient, as may procure to him the greater Reverence and Respect.

Fifthly, He ought not to be *Loquacious* or a *Tatler*, for which none but an *old Nurse* will value him; neither affect a supercilious Air or *cynical Moroseness*, which will procure to him  
the



the Character of a *proud* Man, and render him contemptible upon that Account, if on no other.

Sixthly, It will behove him to appear always neat in his *Attire*, avoiding the Extremes of the *Fop* and the *Sloven*, with a chearful Countenance, especially before the Sick ; rather compassionating their Infirmities, than resenting every little Excursion which Pain and Peevishness may extort from some of them ; for as *Pity* and *Humanity* are due to all Men under Affliction, so no Man shews these most excellent Endowments with a better Grace than does the Physician.

These chiefly for the Sake of his *Patient*, whilst for his *own*, it were much to be wish'd,

Seventhly and Lastly, That he have such *competent Estate*, as may support a handsome Figure in Life, till Business answers, or that he comes to be taken Notice of in the World ; and this I think still more desiræable, that he may not fall under any Temptation to do a mean Action, by which Dishonour might redound to the *Dignity* of his Profession, as well as to himself.

Now



Now as your Title, Sir, to the greatest Part of these necessary Qualifications for the Office of a Physician, are known to those who are happy in your Acquaintance; so if by any Thing I have here communicated, a farther Step should be made, towards the putting you into the full Possession of what remains yet wanting, I shall think the Time I have spent therein very well employ'd, and the Recompence sufficient, that in the Number of your *Friends* you place,

*Dear Doctor,*

*Your very Humble Servant,*

Ex Musæo, Die ultimo  
ejusdem Mensis, viz.  
Martii 1727.

**D. T.**



## P O S T S C R I P T.

A Short Account of the *Pulse* and *Urine*, as affording Signs both *Diagnostick* and *Prognostick*; as also of *Crises*, and *critical Days* in *Fevers*, by the Way of *Postscript*.

I Have taken Notice in both my preceding Letters, that as the *Pulse* does often guide us to the Nature of the *Fever*, and the Condition of the vital Energy, so also to the *Regimen* necessary to be observ'd therein; and that the *Urine*, however fallacious at some Times, is yet to be inspected from Day to Day, as affording us often the Signs of *Concoction* of the febrile Matter, by its *Nubes* at the Top, the *Eneoræma* suspended, and the *Hypostasis* at the Bottom; besides which, when tending to an *Intermittent*, the same is discoverable by the *lateritious Sediment*.

But



But to give some farther Information of both these, I here present you with a short Abstract, sketch'd out to my Hand, by *Zypæus* from his *Institutions*, a Book now scarce, yet upon several other Accounts deserving your Perusal, as the best, in my Opinion, of the Kind, that has been yet publish'd, with some Annotations of my own,

*And First of the Pulse.*

Which according to this Gentleman is deceitful and mutable, as well from any sudden Motion of the Mind, as of the Body : So that the Physician coming into the sick Man's Chamber, is not presently to explore the same, which may vary even by the Surprise, or Thought how his Case may appear to him.

There are many Differences thereof, some of less Use or Regard : The most material, are the four following : The *Great* and the *Small*, the *Strong* and the *Weak* ; the *Equal* or *Unequal*, the *Frequent* and *Rare*.

To the first of these belong the *full* and the *empty*, also, in some Respects, the *hard* and the *soft* ; the Difference between the *Pulsus*  
*magnus*



*magnus ac validus*, is by our Author distinguish'd thus.

*Pulsus magnus est, in quo Arteria multum pulsatur in longum, latum & profundum. Validus, in quo valide ferit tangentis Digitum.*

The *Ordinate* and *Inordinate*, or the *Equal* and *Unequal*, is the same as the *Intermitting* : That is, when after a certain Number of Vibrations or Strokes against the Finger, there is a full Stop or Interruption for a short Space ; and this is again divided into the *æqualiter inæqualis*, and the *inæqualiter inæqualis* ; the former is when the Stop happens constantly after the same Number of Beats, as at 5, at 6, or at 7 ; the latter, when it falls out sometimes at 3, and at others at 9, and so on, irregular still and uncertain.

To the *Inordinate* others (but I think improperly) add the *Caprisans*, *Myurus*, and *Formicans*. Some likewise make a Difference between the *Pulsus celer*, and the *Pulsus frequens*, as betwixt the *tardus* and the *rarus* ; alledging that a Pulse may be *swift*, yet not *frequent* ; also *frequent*, yet not *swift* ; as the Coats of the Artery happen to be more or less dilatable, and require a longer or a shorter  
Time



Time in their striking the Finger : For as in that which is more dilated, the Pulse may be *swift*, yet taking up Time to communicate its Motion thro' the same, less *frequent* : So when the Vessel is more contracted, requiring less Space, it may be *frequent*, yet not *swift*.

According to a late Writer in the *mathematical* Way, \* there is also a very remarkable one, betwixt a *large* and a *full*, and a *thin* or a *small* Pulse ; either of which may be *strong* or *weak*, and by reciprocal Proportion, so balance each other, as to retain the same Magnitude or Quantity of the Stroke in both : that is, the Velocity of the Blood under a *large*, *full* and *weak* Pulse, may be the same as under a *small*, but *strong* and *smart* one ; which depends much on the *contractile Power of the Vessels*, the *State of the Blood*, more or less prone to *Rarefaction and Condensation* ; its *Fluxility or Viscidity*, its *Heat and specifick Gravity*, which being too weak or strong for the restitutive Power of the Nerves, the *Equilibrium* is destroy'd, and *Fevers*, as well as other Disorders, hereby produc'd ; but passing these, as over nice and less useful Distinctions.

\* Morgan in his Philosophical Principles.



To the *hard* and *soft* Pulse belongs the *full* and the *empty*; the former incident to old Age, from the indurated Condition of the arterial Coat, which in some have been found Cartilaginous. Related to this, is reckon'd the *Serratus*, though surely less properly, which with the acute *Pain on the Side*, and the *dry Cough*, are accounted the usual *Diagnosticks* of the *Pleurisy*; with the *hard* and the *soft*, are number'd also the *strong* and the *weak*, as above remark'd.

Farthermore, in respect to the *Pulse*, Consideration must be had to the *natural Temperament* or Constitution of the Body, as likewise to the *Age* and *Sex*, the *Passions* of *Anger*, *Joy*, *Sadness*, *Love*; also the *Seasons* of the *Year*, as *Winter*, *Summer*, *Spring*, and *Autumn*; the *Temper* of the *Air*, as *hot*, *cold*, *moist*, and *dry*; all which have an Influence upon the Motion of the Blood, and of Consequence must differently dispose the *Pulse*.

Thus to give you a short Recital, to the *hot* Temper, naturally appertains the *pulsus validus ac frequens*; to the *cold* the contrary, *parvus, tardus ac debilis*; to the *dry*, *duriusculus & rarus*; but if withal *hot*, the *magnus*; to  
the



the *humid* or *moist*, the *mollis* & *rarus*, *aliquantulum quoque magnus*.

If we regard the *Age*, *Children* have the *pulsus creber* & *molliusculus*, *Youth* and *Men* grown, the *maximus ac validissimus*; *Women*, the *creber*, *mollisque*, *subinde magnus* (*ut virginibus*) *sed sæpius parvus*; *old Age* the *rarus*, *debilis*, *sed siccus* & *duriusculus*.

In respect to the *Seasons*, to the *Spring* is reckon'd the *magnus*, *validus* & *moderate creber*. To *Summer*, *creber*, *nonnihil magnus*, *validusque*, in as much as the *Blood* at this *Time* is hotter, and more rarified. To *Autumn*, *Pulsus inconstans* & *debilis*, by lessening of the said *Heat*, together with the frequent *Change* of *Air*, from one *Side* to the other. To the *Winter*, the *Pulsus parvus*, *debilior* & *rarior*. In *Sleep*, the *Pulse* is more *languid* and *rare*, as also lesser than when awake: And now lastly, if we look to the *Passions*, in *Anger*, the same is *great*, *strong* and *frequent*; in *Sadness* contrarily, *small*, *weak* and *rare*; in *Joy*, moderately *large*, *strong*, and withal *equal*. The *Pulse* proper to *Persons* in *Love*, is difficultly distinguish'd, as depending much on the different *Passions*, with which, at divers *Times*,



these People are affected, as *Joy, Fear, Sorrow*, by which the same is render'd almost perpetually *unequal, fluctuating* or *inconstant*.

### *Of the Urine.*

As the Diseases of every Part (in the Words of the same Author) are not found out by the *Urine*, so neither (which the *Pis-Prophet* pretends) is every Disease that afflicts the Body of Man. And truly the chief *Indications* we can gather hence, are such which relate principally to the sound or diseased State of those thro' which the *Serum* of the Blood transmigrates, whence it derives its Generation and Perfection, or wherein it happens to acquire some singular Affection of the *Bowels* inservient to *Concoction*; but in more especial Manner, the *Kidneys, Ureters* and *Bladder*; and hence, in some Respects, it may be accounted a more general *Diagnostick* than is the *Pulse*: In as much as the former, not only discovers to us the Disease, but the Cause also, and the Part affected, which the last does not.

Thus from the *Urine*, in reference to the *Disease*, we find out *Wounds, Ulcers, Obstruc-*

Z

tions,



tions, with the *Intemperies* of some of the inward Parts; in regard to the *Cause*, some *viscid* and *crude Matter* redundant, *obstructed Bile*, *calculous Concretions*, and *Grumes of Blood*. And lastly, as to the *Part affected*, we infer the *Bladder* to be ulcerated, by the *branny Scales* and *stinking Matter*, discharg'd together with the *Urine*. That the *Kidneys* are misaffected, by the *Caruncles*, *Blood* and *Matter*, however less foetid than that from the *Bladder*: Yet usually in larger Quantity, which, together with the Pain about the Region of the Loins, puts the Matter out of Dispute. In *Fevers*, we apprehend the Head, if not as yet, likely to be affected suddenly, by the Change of the *Urine* from a deeper Colour to a crude Paleness. Thus the *Criticon* has justly remark'd, that if in a *Fever*, *Concoction* appears in the *Urine*, and after turns pale, without a Sediment, provided the same cease, all goes well, otherwise some fatal *Metastasis* (such as a Translation of the morbid Matter to the Head, or being thrown upon the Nerves, bringing on Convulsion) is at hand: And hence he says, tho' a *concocted Urine* does not always accompany a *critical Evacuation* or  
 Erup-



Eruption, yet should it always precede one. None of which are found out by the *Pulse*, which nevertheless, it must be granted, is the more sure *Prognosticator* of Life and Death, by indicating the *vital Principle* to be more strong or weak, as the Dispence of the *nervous Fluid*, in the Brain its Storehouse, is more vigorously or faintly supplied for carrying on the Circulation of the Blood, without which, any more than Breathing, we cannot live.

The *Urine* we own does sometimes presage Death, in respect to its entire Stoppage, as in the *Ischury* many Days continu'd: In the *Ascites* or Dropsy of the Belly, from its small Quantity and lixivial Contents, a Disease almost as fatal; by the foetid Matter issuing therewith, accompanied with great Pain in the Discharge, as in the *Ulcers* of the *Bladder* already observ'd, usually mortal also at long run: However we are not otherwise to practise *Uromancy*, from Inspection simply of this Fluid, which is so very precarious in *Fevers*, that we find many Persons dying with a laudable *Urine*, of which Danger the *Pulse* gives the truer Notice.



If we look upon the Colour of this Liquor, we observe the same diverse, accordingly as it is more or less saturated with saline and earthy Particles, importing differently also: Thus the insipid made in large Quantity, which is clear like Rock Water, to which they compare it, is common to the *Hysterick* and *Hypochondriacal Affections*. The *sweetish* like hony'd Water, and pale, or rather *Cowslip* colour'd, coming down as it were like a *Cataract* or Flood, withal ponderous as the *Lympha*, denotes the *Diabetick Profluvium* or *Pissing Evil*. On the contrary, the high colour'd and lixivial, as but now observ'd, made also in little Quantity, the *Dropsey* of the Belly. An inflammatory Disposition of the Parts within, such as that of the *Intestines*, but especially the *Liver* and *Kidneys*, will dispose the same to be Coffee colour'd, or of a deep red; as the Obstruction of the *Bile*, will render the same yellow, witness the *Jaundice*. A wheyish Water is common to Children labouring under the *Stone* in the *Bladder*, the like I have known accompany the *Worms*, as also to precede the *Small Pox*, in Infants.

But



But as to the Colour and Scent also, many Things may contribute inwardly taken : Thus *Saffron* and *Madder*, as likewise *Turmeric*, but especially *Rhubarb*, will strike a Dye thereon of the same Colour, *Asparagus* and rotten *Cheese*, *Garlick* and the *Turpentine*s of all Sorts, will imbue the same with differing Smells ; the three first offensive ones, but the last more grateful.

What is most observable in relation to the *Consistence*, are the *clear* and *turbid* ; of the former already, the last is often the forerunner of the three more remarkable *Contents*, to be here observ'd ; 1. The *Nubecula* or Cloud, swimming at the Top. 2. *Eneoræma*, which is the same growing more weighty, and falling lower, or hanging as it were in the Middle. The third call'd *Hypostasis*, or *Sedimentum*, growing still heavier, and sinking to the Bottom ; or taking with you a little *Algebra*, or a touch of the *Mathematicks*, you must understand, that Bodies *gravitate* with their Excess of *Gravity*, above the lighter : So that suppose  $x+y$  to be the heavier, and  $x$  to denote the lighter, then  $\frac{x+y}{x}=y$ . All these



with some ramous Particles holding them together, are compounded of the nutritious Corpufcles, carry'd along with the *Serum*, and wash'd off from the Blood in its Passage, according to their feveral Gravities as now hinted, taking their Stations in the *Urinal*, the lightest keeping on the Surface, the heavier flipping down lower, and the weightiest finking to the Bottom thereof; which ought to be of a *whitish* Colour, *smooth* and *equal*, or, according to *Bellini*, *figuræ retusæ Pyramidis, cum bafi in fundo vasis*, the best Indication of a kindly and regular Concoction: And hence some Phyfick Writers have remark'd in Fevers, that when towards the fifth, fixth, or feventh Day, this light and even Sediment fhews itfelf in the *Urine*, it is a good Argument of Digestion of the Matter thereof, and a promifing Index of Recovery, particularly when the Day before there was no fuch Appearance, and that the fame is not divuls'd, but close, even, and compact together. Again if on the third Day, the *Nubes* or *Eneoræma* fhew themfelves, all is to go well, efpecially when the fame begins to gather clofer, and has a Tendency downwards, like the true *Hypo-*  
*stasis*. We



We have already view'd the other Appearances and Contents in this Fluid, the *Urine*, besides which there is one supernatant in the place of the Cloud at the Top, of which we have not taken Notice, that is an *oily* or *fat Appearance*, frequently accompanying the *hectical* or *consumptive Patient*, though I have known it common to others, proceeding from the melting down of certain *fulphureous* Parts in the Blood, by a preternatural Heat stirred up; which passing off also with the *Serum*, thro' the *Papillæ* and *renal Ducts*, from their lightness in Comparison of the others, appear like a Skin or Scum upon the uppermost Part thereof.

## Of Crises, and the Dies Critici in Fevers.

Altho' it is granted that some Fevers may be *endemical* to some particular Countries, and that different *Epidemics* also do arise from some hidden Causes, whether *planetary* above, or *subterraneous* beneath us; yet the *common putrid Fever*, (improperly so call'd, at least in



my Opinion) which is owing rather to the manifest Qualities in the Air, or a Trespafs in the *Nonnaturals*, must be allow'd, I think, of near Affinity in all Places and Climates; so that as our learned Countryman Dr. *Freind* in his *Ninth Commentary* takes Notice, notwithstanding the Air of *Thasos*, where *Hippocrates* practis'd, by its Situation, and particular Disposition, varied from that of *England*, yet there was not the least Difference of their *Fevers*, from these of ours, contrary to what some among us are ready to imagine, and indeed those very *Fevers*, which Dr. *Sydenham* has digested into eight several *Species* or *Constitutions*, were rather (according to this Gentleman) different in their *Degree*, and some different Appearances, than in the diverse Genus thereof: For as there never was any such where the Sick were in every Particular seiz'd alike; so the diverse Symptoms at some times, in one from another, are not sufficient for establishing a new *Genus*, especially where, excepting a Regard to those peculiar Symptoms above mention'd, the general Indications are much alike: So needless, or unnecessary is it, saith our Author, to be over-curious in these

Distinctions,



Distinctions, which are so little instructive to the young Physician, that they may possibly lead him into some Mistake, as falsely suggesting when he sees any singular Note or Property affixed to the Disease, he is also to find out some peculiar Method of Prescription suitable to the same ; of which Notice ought to be taken, lest it should be supposed all that has been deliver'd concerning *Fevers*, by the divine *Hippocrates*, should be thought foreign to us, or belonging only to a *Set* of Men, born under another Region, or living in a remote Country from us, so that whether or no the *Corollaries* which may be hence deduc'd, for setting on foot the same Cure among us, will hold good in all other Parts of the World, I am not to dispute, nor is it material ; this I may surely affirm among our own *Epidemics* of the same Kind, where fifty are seiz'd about the same Time, we scarce meet with five in every particular Complaint alike ; for as Men's various Constitutions and Ways of living, dispose the Humours in their Blood, to be diversly affected, even under the same *Constitution* of the *Atmosphere*, or whatever secret Cause shall give Rise to the reigning Disease ;

so



so it is less Wonder the Appearances of some Symptoms should be diversify'd. But notwithstanding all this, however the *primary* or *depuratory* Fever, (as *Sydenham* calls it) that is, the *Inflammatory*, such as the *Angina*, *Pleurisy*, *Peripneumony*, &c. arising from the Perspiration intercepted, or from the manifold Qualities of them, together with the *Small Pox* and *Measles*, may be the same in all Countries and Regions: yet this cannot be said of the nervous or malign Eruptives, proceeding from some more subtle and secret Properties, exhaling from certain *noxious Minera*, in the Bowels of the Earth, which being differently impregnated in diverse Countries, or under different Climates, may send forth Steams productive of diverse Maladies peculiar to those Bodies within their Reach, and which are Strangers to the Inhabitants of distant Regions. Nor does *Sydenham* make the Alteration of our own *Constitutionary Fevers* so trivial, as here represented, by telling us only, (as our learned *Commentator* upon *Hippocrates* observes) *That the continual Fevers were so widely different, that the same Method which relieved the Patient at the Beginning of the Year,*  
*or* *towards*



*towards the End of it might possibly carry him off.* He goes farther, surely, when he acknowledges the Method which had answer'd in a preceding Constitution, was hurtful in the following: Thus the one would bear both repeated Bleeding and repeated Blistering, if not Purging, whilst that of another Constitution would suffer neither, but requir'd a different Treatment, being rather determin'd by its natural Genius, to some other Evacuation, as that particularly of Perspiration. For this Cause, saith he, I was always forc'd to pause a-while, whenever any new *Species* arose, and wait for proper *Indications*, that I might discover the true Genus of the Fever, and which way Nature tended of her own Accord: which having found, I could then as readily, and as successfully also, set about the Cure of this new Fever, as I had of the rest.

This only by the way premis'd, I come now to speak a few Words of the *Crisis* and the *critical Days*, whereon the Antients laid very great Stress, but which, in a Manner, is wholly neglected by us, who observe that *Fevers* of all Kinds run their Stages, without any Regard to Numbers of Days, unless that they  
do



do not often extend beyond twenty-one ; I say, not often, for we want not Instances of such as have exceeded thirty-one : But as to the finishing their *Despumation*, or what is call'd *Concoction*, precisely on such a Day, as the 5, 7, 11, 14, or 21, there is, I say, no Rule that holds with us, who observe, as the Sick is seiz'd at all Times and Seasons, so dies he, or shews Signs of Recovery, on the Days intermediate, or between all these ; and hence we justly, I think, have set at naught the *Dies Indices, indicantes seu contemplabiles*, such as the 4, 11, 17, and 24 ; the *Intercidentes*, call'd otherwise *Intercalares*, which were the 3, 5, 9, the 13 and 19 ; the *Vacui, viz.* 6, 8, 10, 12, 16, 18 ; and which others have run up to 39, whilst our People make them all *Medicinales*, and in that respect *pleni*, whether for the better at all Times, or not the worse at some, I shall leave the Faculty to determine ; but doubtless it may furnish out some Reason, why these *Crises* are less certain with us than they were among the Antients ; for Nature, as *Baglivi* observes, being the best Curer of Diseases, the Physician is to stand by, not as an idle Spectator, but to assist as he sees

Occasion,



Occasion, or as the Symptoms happen to indicate : And this was the Method of *Hippocrates*, who gave few Medicines at the Beginning, and at the Height none at all, provided the Fever was not attended with any perverse or malign Symptom, requiring something farther to be done.

By this the Disease came to its natural *Crisis* or Termination, at the usual and stated Period appointed by Nature, which, perhaps, may be inverted and render'd confus'd, where over-officious *Art* intrudes and puts by the same.

' You can't imagine (saith this considerate  
' Man) what Pleasure I have had, after the  
' Pursuit of this Method, and seeing the fe-  
' brile Fits succeed by gentle and friendly  
' Turns, running their Rounds in the ap-  
' pointed Order of Nature ; In seeing, I say,  
' the regular and finish'd Course, the *Crises* or  
' Depuration of each Fit, as well as the ge-  
' neral Despumation at the End of the Dis-  
' ease.

' On the other hand, when she was teaz'd  
' and thwarted with the continual Use of Re-  
' medies, (those too perhaps ill suited, as well  
' as timed) I always observ'd (*væ vobis Me-*



‘ *dicis !* shall I say now ?) that every Thing  
 ‘ grew worfe, and I can safely say, that I have  
 ‘ oftentimes cur’d *inflammatory Fevers*, espe-  
 ‘ cially those accompanying the *Small Pox*,  
 ‘ by *Bleeding*, a *thin Diet*, and *diluting Re-*  
 ‘ *medies* ; and pursuing this Method, never  
 ‘ had a Patient died under my Hands.’

Oh happy *Baglivi !* or surely these Fevers  
 at *Rome* have been more mild and kindly than  
 ours at *London*, where, tho’ I own, among the  
 poorer Sort, who have pursu’d the simple  
*cooling Regimen* of thin Gruels prepar’d either  
 with Oatmeal or Barley, I have observ’d some-  
 times the like Success, yet not at all times.  
 To the like Effect.

‘ Being call’d, saith our Countryman *Sy-*  
 ‘ *denham*, to a poor Body in these Fevers,  
 ‘ unable to bear the Charge of many Medi-  
 ‘ cines ; I did nothing after Bleeding and  
 ‘ Purgings were over, (where these were in-  
 ‘ dicated) but order them to keep their Beds  
 ‘ all the Time of their Sickness, (*tho’ here he*  
 ‘ *runs counter to his own general Advice in*  
 ‘ *other Places*) and to drink Oatmeal and  
 ‘ Barley Broths, and the like ; not denying  
 ‘ them moderately to quench their Thirst  
 2 with



‘ with Small Beer : with a Glyster of Milk  
 ‘ and Sugar every or each other Day, to the  
 ‘ 10th or 11th ; and towards the End of the  
 ‘ Fever, Seperation being began, if the same  
 ‘ was slow, I allow’d now and then a little  
 ‘ stronger Drink, instead of a Cordial, and  
 ‘ so without more ado (except a Purge at the  
 ‘ Close of the Disease) I cur’d them.’

However among those, whether Rich or Poor, afflicted with Fevers of the same Kind as to the Symptoms, I scarce ever could fix the *Crisis* exactly to the same stated Time, or thought it reasonable to expect it : For altho’ *vegetable Juices* from the same Plants, and of the same Growth and Maturity, put into Vessels, and set to ferment under the same Degree of Heat and Cold, may happen to fine or be despum’d, the Effervescence ceasing at their limited Time or Period ; yet will not, nor can it be suppos’d the Blood of divers Men, living differently, and of divers Temperaments, should be subjected to the same stated Number of Days, under its *Ebullition* or *Fermentation*.

Thus *Lommius*, discoursing of the *Concoction* of the feverish Matter, acquaints us, *That if any Sign thereof appear’d on the fourth Day,*  
 about



*about Greece and Italy, the Disease was judged, that is, terminated on the seventh, but with us, saith he, (Gueldria Batavica) upon the ninth; and in the continual Fever remitting, and so intermitting, as having one Day better than another, the same will not conclude before the eleventh: But notwithstanding this Difference of Appearance one Day from the other, altho' the Force of the Disease seemeth to be overcome, at the Time of such Remission or Intermission either, yet if there arise any ill Symptom between, it may not possibly be judg'd till the fourteenth, the common Boundary of these acute Diseases, altho' it may happen they may extend to 20, 30, or 40.*

From all which I think it appears plain, how little Certainty there is in those Days, which are call'd *Critical*; and that altho' the Blood of one, under this State of a feverish Ebullition, may cease its *Luētus*, and regain its Temper by the seventh Day, yet that of another, under the like *Effervescence*, may not recover its pristine Calm till the eleventh or the fourteenth, the Signs of whose Approach are aptly enough drawn up by an Author we have formerly quoted upon some other Occasions, viz. *A sensible Diminution of the Heat*  
and



and Burning, with an agreeable Moisture, as well on the Tongue as the Skin in general, succeeding in its Place, the Urine changing from the more to the less inflammatory Colour, or from that of crude to a concocted State, as is seen by its light and equal Sediment; easy, gentle Sweats, kindly Evacuation also by Stool, as in the Time of Health; the Pulse regular, imitating almost the Natural; and lastly, if the Fever assumes that Shape, periodical Intermissions, at least regular Remissions, where before the same was continual, irregular, and had imperfect or indistinct Intervals.

And this is what I have thought necessary to communicate farther about the State of Fevers in general, and the Time of what they call the *Crisis*, when the utmost Care is requir'd, that instead of forwarding we do not someway retard or pervert the same, or change what might have prov'd *salutary* into a *fatal* one; in regard to which I cannot better shut up this Discourse, than in these Words of the same excellent Author *Lommius*.

*Omnibus, ita uti præcepi, diligenter per Febris Principium & Incrementum, provisus: ubi ad Statum ventum est, videre imprimis oportet,*

A a

quibus



*quibus Natura viis, corruptum humorem pellere instituat : Eamque convenit parum firmam juvare, neque vero reclamationem, quod Hippocrates scribit quæ judicantur aut judicata sunt integre, ea nullis Medicamentis aliisve irritationibus la-cessenda, sed sinenda esse : (Scil.) hic non laceffimus, sed quo Natura vergit, eo leniter impellimus, laborantique Naturæ, tanquam Manus auxiliatrices damus, rebus usi Moderatioribus, nec quicquam Naturæ opus, more purgantium medicamentorum turbantibus ; ut enim Naturam recte omnia per se absolventem attingere, necesse non est : ita fas est laborantem Conatuque vacuantem difficiliore, adjuvare, &c.*



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