

The modern practice of physick vindicated, and the apothecaries clear'd from the groundless imputations of Dr. Pitt [in his 'The craft and frauds of physick expos'd'] In which is contain'd several physical disquisitions concerning the state of a human body, the seperations and secretions in the several fluids with the method of perspiration. An account of pulses, and of the digestion of the stomach, after a mechanical way. How Animal generation may be understood. A refutation of the vulgar opinion that supposes women colder than men. Together with an appendix in a letter to the learned Sir John Floyer about the further use of cold baths / Joseph Browne.

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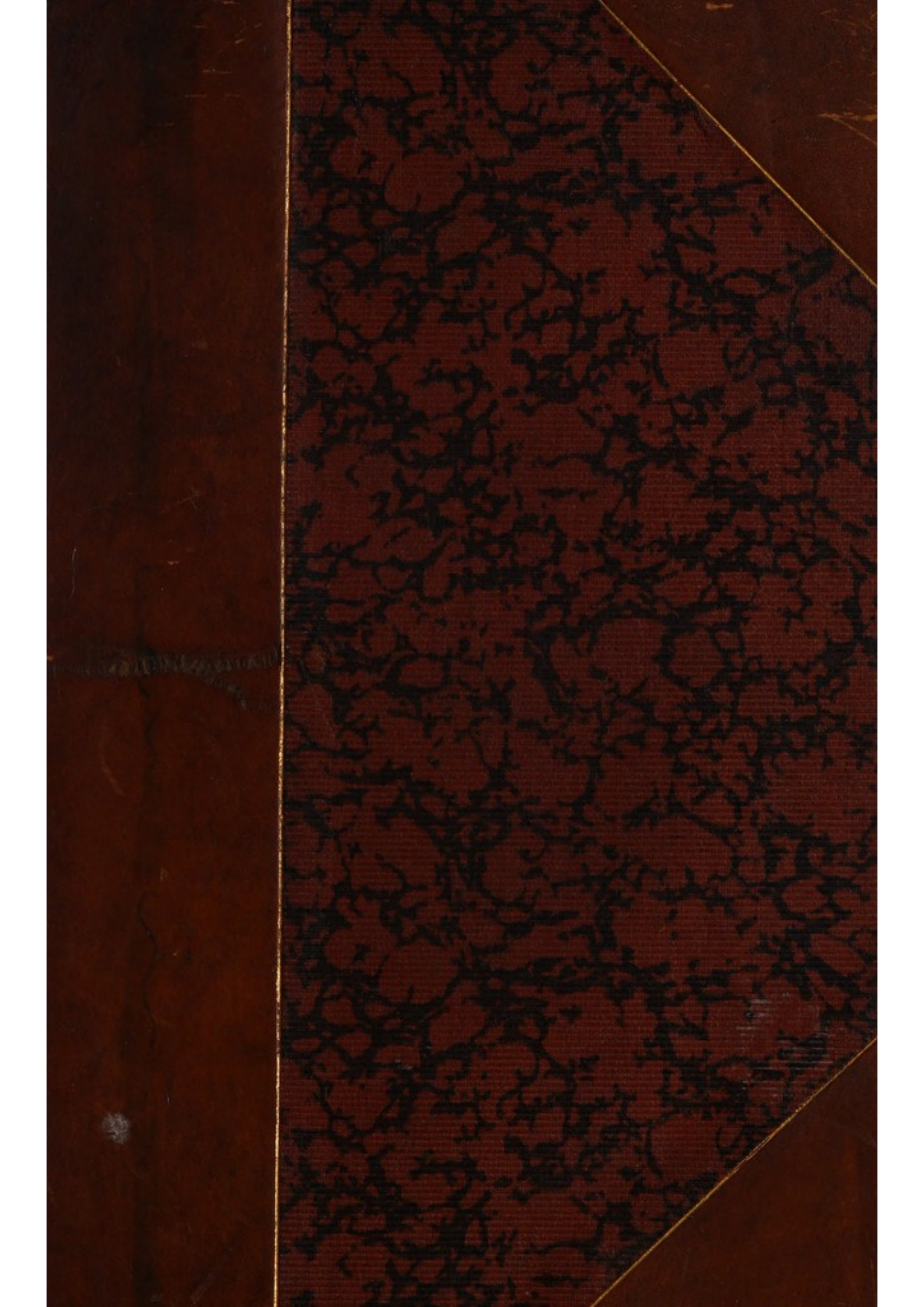
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By Lloyd Browne

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THE
MODERN PRACTICE
OF
Phyſick
VINDICATED,
AND

The APOTHECARIES clear'd
from the Groundleſs Imputati-
ons of Dr. PITT.

In which is contain'd

Several Phyſical diſquiſitions concerning
the State of a Human Body, the Separations
and Secretions in the ſeveral Fluids, with
the Method of Perſpiration. An Account
of Pulſes, and of the Diſteſtion of the Sto-
mach, after a Mechanical way. How Ani-
mal Generation may be underſtood. A Re-
futation of the Vulgar Opinion that ſup-
poſes Women colder than Men.

Together

With an Appendix in a Letter to the Learn-
ed Sir John Floyer about the further uſe of
Cold Baths.

London, Printed for Nick. Cox, at the Golden-Bible
without Temple-Bar. 1703.

THE
MODERN PRACTICE
OF
Physick
VINDICATED



THE APOTHECARIES' clear'd
ons of D
Several Physical disquisitions concerning
the State of a Human Body, the Secretions
and secretions in the several fluids, with
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of Saliva, and of the Digestion of the Sto-
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futation of the Vulgar Opinion that wo-
men are colder than Men.
Together
With an Appendix in a Letter to the Learn-
ed Sir John F. about the nature and use of
Cold Baths.

Printed for J. W. at the Golden-
smith's Head in St. Dunstons Church-yard, 1703.

T O

His Grace THOMAS
DUKE of LEEDS,
*Knight of the most Noble
Order of the Garter, &c.*

My Lord,

AS Your Grace has been
always esteem'd the
most Generous Patriot of
your Country, so you have
justly merited the Opinion
of being thought the ablest
Pillar and Defence both of
A 2 Church

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Church and State; and
have always signaliz'd your
Zeal to maintain the
Rights and Properties of
the People of *England*.

I address not my self to
beg your Graces Patron-
age of the Disputed Argu-
ments that may be con-
tain'd in the following
sheets, in which I have at-
tempted a Vindication of
the Modern Practice of
Physick, but as far as I
have Vindicated plain
Truth and matter of Fact,
against

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against Supposition and
downright Falshood.

The Subject matter of
this Vindication is about
the true and properest me-
thods to be taken for at-
taining to the Preservati-
on and Restoration of
Health ; an Affair of the
most valuable concern to a
Man's Life. I am well
assur'd your Grace is not
insensible of what impor-
tance it is to the Publick,
to be truly inform'd of the
danger they are in, who

A 3 suffer

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suffer themselves to be impos'd upon in so great a trust as that of Life is, by such of the Profession, who to support a Private Interest and Arbitrary Monopoly, throw their Scandalous and False Aspersions upon the best and most Eminent Men of the Profession, and Tyrannize over the rest with the Oppressive Treatment of Fines and Imprisonment.

I shall not give your Grace any further trouble
here

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here with the particulars of the Dispute, having I fear taken to much Liberty, to prefix your Graces Name, to this trifling performance. But I hope you'll Pardon the Ambition I have of publishing to the World, that I am known to your Grace. Besides the Appendix I have annex'd to these Sheets, I am Confident will not be unacceptable, the Subject matter being of a Cold Mineral Bath and Spaw at *Guithwait*,
very

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very near your Graces
Paternal Estate. The na-
tural Affection to which
that every man has some
regard, I have heard
you express after such a
manner (which is pecu-
liar to your Grace) that
few can pretend to Imi-
tate: But it is certain your
Grace has given the
World a convincing proof
of your Love to the place
of your Nativity, by that
Noble Structure your
Grace has Built at *Kei-*
ton.

If

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If I shou'd attempt (a-
ny part of) your Graces
Character I shou'd want
room to describe it with-
in the narrow limits of
this Small Tract. But I
am too sensible of my
own Inabilities for such
a work, knowing that the
Glorious and wonderfull
Actions of your Graces
Life ought to be reserv'd
for the Pen of some Ela-
borate Historian, A *Xe-
nophon* cou'd not flatter you,
or a *Livy* draw you too
Faithfully, but the Living
World

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World must say the Original exceeds.

The Jealousie I had that your Grace might deny me the Honour of paying my publick acknowledgments to you after this manner, was the reason I did not ask leave to Subscribe my self,

My Lord,

*Your Graces most
Obedient Servant*

Joseph Browne.

THE

THE Preface.

S*Ince there is nothing new contain'd in
Doctors Pitt's late Piece call'd, The
Craft and Frauds of Phyfick
expos'd, but what has been at large discours'd
of before by Doctor Cox, Doctor Merrett
and Goddard, about the Year 1670. Save
only the late diffention of the College Mem-
bers amongst themselves, about the Dispen-
sary; I think it will be requir'd of me to give
the Reader an account, why I attempted a
Vindication of the Faculty, or troubled the
World with an answer to that, which was on-
ly a Repetition of what had been said over
and over again, and Objected against the A-
pothecaries, without ever making the charge
good, as they attempted it about Thirty
Years ago, when they made their Applications
to*

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to the Council Board, and to the Parliament then Sitting, without being able to effect any thing, but expose themselves, by such a poor complaint as Doctor Pitt Still insists upon, to the Disbounour of our Profession, that the Apothecaries endeavor'd to Supplant them and Shuffle them out of their Practice, which is Scandalous for a Physician to mention, at a time when they are so much encourag'd and never made a better Figure in the World, then they do at present. I think it will be necessary to acquaint the Reader that I undertook this Vindication to clear the Profession, from the Uncharitable Censures, with which the Doctor charges all, but a few of his Dispensary Friends, that he will not allow any honest man in the Faculty, but themselves; besides I think it necessary to expose the Doctor for Prefixing a new Title to an old Subject, for besides the Novelty of his quarrel with his Brethern of the College, for combining with the Apothecaries, in a fair and open Practice, against the Unjust and Secret proceeding of the Dispensary, he has nothing but pick'd and Cull'd, every Single Argument almost Verbatim from the foresaid Authors, together with the help of Doctor Gideon Harvey

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vey, his old Friend Nich. Culpeper and, Doctor Salmon, who have shown him the way to ridicule his own Profession, and Particularly those of the College, which he does Sufficiently by exposing the London Dispensatory. Indeed if the Doctor had understood the Materia Medica, but half so well as the last of those Authors I mention'd, he might have had some pretensions to have attempt'd a Reformation in Physick, especially in that part of it which the Dispensary have set about; but while he would have the other part of the Faculty to learn from them, he plainly discovers to the World that he wants to be Taught himself, that is, how to use those better that are wiser then himself.

The Doctor says after, Doctor Merrett, that the Sick are charg'd, and oppress'd with too many Medicines, which rather Destroy then cure, but tells you withal that the Majority of the College detest that Practice. But this was only charg'd upon the Apothecaries till Doctor Pitt extended it to all the Profession, how'er he informs you that the too much encrease of Apothecaries is the chief cause of it, tho' you may be better inform'd

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from the Apothecaries-Hall, that they have not more Freemen of that Company now, then they had a Hundred Years ago.

And if the Number of Apothecaries were restrain'd, as the Doctor wou'd have 'em, I cannot see of what great advantage that wou'd be to the Profession, Since the Instance that he makes of their being limited by the Magistrate in Forreign Countries, is so far from being an incouragement or advantage to Physick, that quite on the contrary hand, there is neither that encouragement for Physick abroad, nor are there Medicines afforded at such reasonable rates, where there are but a few, as they are amongst a Multitude, and then what reason has the Publick to complain.

But one of the cheif Grievances that the Doctor complains of against them, is that by the Apothecaries visiting of the Sick, the Compounding Medicines is left to the care of raw unskilfull Servants, which indeed wou'd be a great Fault if the Apothecaries made a Practice of committing the Compositions to Ignorant Servants, but it is well known

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known, all those that have any considerable business keeps Journey Men always to attend the making up of all Bills that comes in; and if the Apothecary visit the Sick under the care of any Physician, it is most frequently to serve a turn, and give him an account of the Condition of the Patient, which business was the first occasion that introduc'd the Apothecary to make a Practice of visiting the Patient, and now if at the request of the Sick he Imitate the Physician, by feeling of the Pulse, &c. Can they, or ought they to Blame him for Performing his errant as dextrously as he can, and if the Doctor has applied the Cordial, or the Blister Successfully, no doubt on't but they may do the same.

I must needs think the Doctor too uncharitable when he Judges all the Apothecaries so Selfinterested, that they will not call in such a Physician as they suppose to have the best Judgment, unless he be such a one as will Countenance their Practice, and make large Prescriptions; now whether he Judges thus hardly of 'em because he has a Seperate interest, or that he knows this to
be

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be true in fact, and not a bare surmise, I shall not take upon me to determine: But am of Opinion that their Dispensary, in Opposition to the Apothecaries, can never be of that benefit and advantage to the publick, as he proposes; for that which deceives many is the fair pretence of making it a repository of Physick, for the Service of the Poor, when at the same time their Charity extends to the payment of themselves first, for they will be paid the prime cost before they trust.

Whereas the Apothecaries have Erected a Charity without Bishopsgate, where they give all their Medicines for nothing; the other has only the Name of Charity, out of which they form Bills to Private Persons, of Fifty Pounds per Month; this is sufficient to satisfy all unprejudic'd Persons, that the great cry and clamour that the Doctor makes against the Frauds and Abuses of the Apothecaries, is all a Juggle and an amusement, to deceive the World, and advance the private Interest of a few Men that call themselves the Dispensary College.

And

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And to this end it is necessary for him to proclaim all the Medicines of the Shops Sophisticated, or negligently Compounded; but what needs that plea when he has a much better afterwards to tell you, that if they were made with all the Art imaginable, there is scarce a Receipt in the London-Dispensatory fit for use, but they are all obsolete and incongruous. So the Apothecaries by this means are ruin'd at one stroke, and they must either engage the College to make 'em a new Dispensatory, or resolve to turn Doctors and maintain their Practice by the old one.

The Doctor has taken upon him to assert that all the usefull Medicines are freely bestow'd by Nature, and that they are of little or no value, and for that Reason he explodes the use of Bezoar, because, if he had admitted it as a Medicine of any vertue, he cou'd not so easily have maintain'd his assertion, that the usefullest were of the lowest price.

After I have pursued the Doctor in his own Method, and endeavour'd to obviate his Arguments, I take the Liberty to deviate
a from

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rom the Subject for a time, and observe to
ou some thing concerning the state of a Hu-
mane Body, examine into that Fluid call'd
Blood, and consider the Natural Separations
and Secretions in the several Fluids; make
some short enquiries into Doctor Cole's O-
pinion of the Method of Perspiration, ac-
quaint you how far the Six Non-Naturals
contribute to that Office, and how necessary
Perspiration is to the maintaining, and well
being of the Animal Oeconomy. I have at-
tempted to define what Life is? What
Health? And what forms a Disease? Which
simply so understood, without complication, I
take to be a Fever, or a disorder'd Irregular
Motion in the Fluids. I have exploded all
Ferments in the Blood, and endeavour'd to
explain the variety of Pulses, to account for
the Concoction and Digestion of the Aliment
after a Mechanical way, to show that it is
perform'd by Attrition, and that the Fluid
we call Chyle is reduc'd into a state of Fluity
by the same means, as Coral is ground upon
a Marble. I have likewise examin'd into
that Liquor we call Urine, shown the Nature
and use of the Testes, and how Animal Ge-
neration may be understood. That the Vul-
gar

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gar Opinion is false, which supposes Women be of colder Natures then Mea; but, on the contrary, they are more hot and humid, Men more cold and dry. I have given my thoughts of an Intermitting Fever, and, after I have gone thro' with Doctor Pitt's Book, I have subjoyn'd an Appendix, by way of Letter, to Sir John Floyer, about the further use of Cold Baths; to which I have annex'd several Remarkable Cures perform'd to my own knowledge, and given a short description of a Cold Bath at Guilthwaite-Spaws near Rotheram in Yorkshire, which I Built, and brought Seven Cold Springs into it; this, with some short Remarks upon it, concludes the Work.

In the following Sheets I desire the Readers favour no further then I have vindicated Truth and matter of fact, against Supposition and Falshood, if I have advanc'd any thing in behalf of the Faculty, that is not evidently known, or of which plain proof cannot be made, I am so far from asking to be countenanc'd in it, that I desire every impartial Reader to do me and the publick that justice, as not to spare any party in the ex-

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amination of Truth ; but inform the rest of the World, least they shou'd be impos'd upon by me, whilst I endeavour to free them from the Prejudices that some may imbibe from the subtle Artifices and Insinuations of an Author who is altogether byass'd in the Argument he undertakes, and visibly partial in the matters of fact he pretends to inform us of. For 'tis of great concern to the Apothecaries, that the World shou'd suspect them for Cheats, when they deal honestly by them ; because the case is falsely represented to them, and they take that for Truth, which has only the dissembled appearance of it ; and so they are render'd not only odious but useless to the Publick, whose common good is always cry'd up the most by those whose designs are laid the most effectually to subvert it.

This is their state and condition, and the Dispensary College are resolv'd, by the common cry to pull 'em down : The popular clamour of Cheats and Fraudulent Empiricks gains the voice of the Populace, and, while with any pretensions, they can stigmatize them with that common brand, they must never expect to maintain the Reputation
they

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they have already gain'd amongst the Wifest Men.

I declare I undertook not this design to ingratiate my self in favour with the Apothecaries, any more than I wou'd do to any Society or Body of Men, that were falsly accus'd of Crimes that I were able to clear them of. I know of no Obligations I lye under to any of their Members, that cou'd engage me to a Partial or a Mercenary Vindication of 'em: But, since they are wrongfully Impeach'd, and, from my own knowledge, I can discharge the Impeachment, I am resolv'd to do it, and question not but the World will interpret my designs are well meant.

And whether the success will answer my intentions, I won't take upon me to determine, but am well assur'd, since I have pursu'd nothing but Truth, that at the last it will not want its Friends.

The Pleasure I take to think I have done my Endeavour towards rectifying the Misrepresentations made of the whole Faculty, is a sufficient Satisfaction for the Trouble it has given

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given me but, I am concern'd when I reflect that any attempts towards a reconciliation does but widen the Breach.

I set not up here as a Champion for the Cause, or to defend any unjust, or exorbitant Bills that some Apothecaries may make: but I am well assur'd that, that part of their Society who make a Profession of honesty and Integrity are so far from desiring a Vindication of the abuses that may be crept into the Trade, that they wish for nothing more then a fair Regulation of 'em, and that the Persons Transacting any Frauds amongst them, may not only be expos'd but duly Punish'd as their crimes deserve, and I cou'd wish as heartily the College wou'd condescend to the same Terms, I am sure then there might be some hopes of an amendment, but 'tis in vain for them to attempt to Pluck the Mote out of their Brothers Eye till they have remov'd the Beam out of their own.

And if the being vers'd in the Composition of Medicines, both Chymical and Gale-nical, be any excuse for my undertaking this defence, gives me leave to tell you I have
I a-

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Labour'd with my own hands in the nicest Preparations of the Shop, tho' the Doctor wou'd make the World believe they are made with all the Facility imaginable, as every body wou'd be apt to think, if the Dispensary College can be Masters, in so short a time, of all the Preparations both Chymical and Galenical as they affirm. In such a case who can be better judges than the Apothecaries, whether those very Men who the other day cou'd not Prescribe a Bole or an Electuary of such equal Preportions, but when it was order'd to be taken on a Knifes Point was of no better a consistence than a Syrup, and only fit to be given in a Spoon, I say they must needs be proper Judges, whether those Persons that understood the Compounding part no better then, can now be admitted to understand all the Preparations in Practice, much more to be allow'd competent Judges of all the Compositions of the Shops, and the Sole Arbiters of the Materia Medica.

I cou'd have Produc'd many more examples of the errors that have been committed lately in Practice, but the World have too many before them already wherein the Ignorance

The Preface.

norance of Compounding Medicines in the common Prescripts to the Shops has been Sufficiently expos'd.

If the Persons nam'd in the following Sheets insist upon their Innocence, and that they are wrongfully Charg'd by me, I can bring undeniable Testimony, of every particular Fact I relate, but if they let 'em pass by in Silence, so they shall rest Eternally for me without a just Motive excite me to that ungratefull Task, in my own Vindication which I will perform as far, as truth and Honesty will permit me.

THE

THE
MODERN PRACTICE

O F
Physick Vindicated, &c.

I Cannot promise the Reader to confine myself strictly to observe the Rhapsodical Harangues of this Dispensarian, who oftentimes assumes the Air and Stile of a Romantic Writer, rather than that of a Serious Physician. This were to tread in the same extravagant steps with Dr. Pitt, and make the World believe I shou'd as readily comply with the *Dispensary Colledge* as he did, not long since, when a little before he had Rail'd and Scandaliz'd those his darling Friends, till he found the Inhumane and Blood-thirsty *Apothecaries* wou'd not introduce him into their Barbarous Practice.

Therefore in the following sheets you will plainly perceive, that the whole intention of his exposing the Faculty to such frauds and abuses as he pretends, appears as a general design level'd at the *Apothecaries*, either to ruin them, or at least seperate them from those Physicians whose just Merits the Doctor's mistaken Calum-

nies cannot possibly diminish; for the Nation entertains too great a value for several Eminent Men of the Profession, aspers'd by this Author, tho' beyond his vanity to pretend to expose. And there are a Numerous Off-spring of their equal Parts and Reputation, greater than can arise from a new created set of Quacks, who daily fill the Town with Noise, and boasted Prodigies; indeed Doctor *Pitt* has out done 'em all, and acted to the Life the part of an extraordinary Mountebank, when he says, "*The People cannot be saved but by the Method of the Dispensary.*" Here's rare Sound and Loquacity for a Collegiate to utter, and breath out Anathema's of Fraud and Abuse against all the Faculty but themselves. For Men's Lives are at stake, and cannot be saved without the *Dispensary*; if so, I hope they will be tender hearted, free from Ambition and Avarice; but I much doubt our Authors sincerity, since why did he not Write in *Latin*, the Language most generally known by Men of Letters; if he cou'd do it, he was unjust in forbearing, and must not blame me for suspecting his designs are rather for a gross delusion of the Vulgar, and for private Lucre, than any real Service and Advantage to the Publick. 'Tis true, indeed, some may be enticed with his specious pretences for a while, but People of more discerning Faculties will easily see thro' the shallow pretext of Popular Arguments and never relinquish what has been experienc'd and prov'd good for so many years: For the bare *aurès éon* of Dr. *Pitt*, whom I wou'd perswade to more Prudence than to possess

possess himself with an idle fancy that he can flatter (as he presumes) Men of Judgment into an Opinion of his Skill, or a respect for his Person; but we may see by him what a rare Friend we have to our Profession, that wou'd advise us to Monopolize, and destroy one another; because the *Apothecaries* do not please him; he will rather consent with his Brethren of the *College*, to Authorise and conive at Medicine-Mongers, who vend and sell grand Magisterials at easy low rates to the deluded Mob, then suffer the *Apothecaries* to get a moderate gain. But if we observe the Doctor's usuage to his Brethren of the Faculty, why truly we are all guilty of the heavy Impeachment he lays against us, but the *Dispensary College*; tho', if you observe his Justice in his Proceedings, it will plainly appear he is a Partial as well as Ignorant Lawyer; he denys the fact charg'd (by himself) upon the Profession, in behalf of his Society, but pleads guilty for the rest: Now it had been but fair play to have put the Accuser upon the proof of his Allegations, against the Profession in general, and for his *Dispensary* Friends or himself in particular, he might have pleaded guilty, and done no harm. I'll give you his own words, least he cavil and say I mis-represent his meaning.

“ *In other Tryals the Defendant denys the facts*
 “ *he is charged with, and puts the Accuser upon the*
 “ *proof of his Allegations. We confess and own all*
 “ *the Particulars, but we make our Protestation,*
 “ *which we doubt not will absolve us, that there is*
 “ *an Error Personæ, that you are mistaken in*

“ *the Names and Characters of the Criminals ; the*
 “ *Major part of the College, (that is the Dispen-*
 “ *sarians, tho’ the Minor part, a willful mistake)*
 “ *has many years detested and abhor’d this inhumane*
 “ *treatment of the Sick, which they foresaw must*
 “ *with the Lives of People at last prove destructive*
 “ *to the Faculty. They have used several Methods*
 “ *to oblige their Members to the most sincere and*
 “ *faithful Practice of their Profession. Witness*
 the shameful Tryal of Dr. Groenvelt, for Male
 Practice, when the most Learned part of that
 Body justified his Practice, tho’ it was fully
 prov’d, that some of those very Men that were
 so hot against him, had used the same Practice
 themselves ; and this is one of the several Me-
 thods, us’d by the College, to oblige their Mem-
 bers to the most sincere and faithful Practice ;
 this wou’d make an honest Man affraid of such
 sincerity. But this is nothing to the Doctor’s
 sincerity with the Faculty, as you may perceive
 by his laying the Charge home upon his Bre-
 thren, viz. “ *That the sick are in all cases oppress’d*
 “ *with too many Medicines, and made to loath and*
 “ *complain of the very Cordials. I doubt the*
 Doctors had too much Spring Water in (his
 Aq. Cord. frig.) when his Patients made their
 Complaints : “ *That the expence is made greater,*
 “ *and more extravagant by the suspected Confe-*
 “ *deracy, from the Artifices, visible in the new*
 “ *Modes of Prescribing ; and that the Death of the*
 “ *Patient is frequently suppos’d not the effect of the*
 “ *Disease, but of the numerous doses, obtruded in*
 “ *the same proportions, in every sickness and age,*
 “ *and visibly pushing on declining, and even depart-*
 ing

ing Life. I am heartily sorry to hear the Doctor has had such ill fortune among his few Patients, as to hear of such frequent complaints from 'em of his Cordials, and the Multiplicity of Medicines killing his Patients; for he seems to have a real concern and conviction of his Conscience, when he expresses himself thus Pathetically, "*The Glasses and Pots are, after the departure, observ'd with the same passions and concern, as the bloody Sword is view'd, when the Coroner makes his Inquest.*" Poor Man! I doubt some time or other, after his mistaken Notions and Methodical Practice, he has let a Tear or two fall upon the departing Patient, to try what power there was in a sincere Practice. But I wou'd ask him what he means by a suspected Confederacy, when he says, "*It appears visible from the Artifices in the new Modes of Prescribing.*" Does the Doctor only suspect things that appear visible? But he takes a pride to say any thing, rather than be thought to say too little upon so Copious a subject; but you may perceive him every where making bitter Complaints against the unreasonable gains of other Physicians, for you may be sure had he a fellow feeling of the profit, that then we shou'd find him as mute as a Fish; but there the sore gauls, that he is not greas'd in the fist so often as he thinks his Merits deserve, for he cannot please his Patients without the deceitful Address, the *affected Carelessness, and fulsome Eloquence, or comical Prattle* which those Pretenders do, who steal all the Practice from him, by such distinguishing Characters and Specious Frauds, his

sincere Practice wont permit him to make use of; this is a lamentable Plea for such a Modest and deserving Physician to be oblig'd to make, who has not confidence enough to speak his mind, before the Nurse or Patient in the Chamber, but can Publickly, in every Coffee-House, rail against the Apothecaries, and abuse the whole Faculty, (as he himself says) with all the useful and necessary impudence of a Mountebank. For you must observe another of their extraordinary Methods to oblige the Profession to a sincere and faithful Practice, is to prosecute such at Law, as refuse to enter into an avow'd enmity and destruction of the Apothecaries: Such as deny that association shall not be admitted into their Monopoly, but they will declare open war against them. This is matter of Fact, as appears from several worthy Physicians, all legally qualified, and some of whom they have not only prosecuted, but denyed admission to, because they refus'd to comply with such demands as that Society have unreasonably made, on purpose to procure their Sworn Revenge against the *Apothecaries*, and all the Faculty.

But now, since the Doctor sets up for a Statesman, according to his Scheme of Politicks, he must break Four or Five Hundred of the Trade, because *Hamburgh* has but one, *Stockholm*, *Copenhagen* four or five, and *Paris*, which Rivals *London* in the Number of its Inhabitants, has but Fifty One: And the *Apothecaries* of *Paris* are forced to take most of their Medicines from the College, and so would Doctor *Pitt* have the *Apothecaries* of *London* do from the *Dispensary*, and then

then instead of serving Medicines cheap and good, we might pay 5 s. a dram for *Liquid Laudanum*, and 20 d. an Ounce for *Diascordium*, as I my self did not long since in *Paris*; and even so it wou'd be in *London*, if Doctor *Pitt* was but admitted to preside over the Government, we shou'd not fail of strict Laws to Punish the *Apothecaries*; but if this *Solon's* advice was to be taken, and there was but a few *Apothecaries* in every large Town, they wou'd take that advantage of selling their Medicines at a better Price, because there wou'd be none necessitated to sell at a lower price; whereas now the Multiplicity oblige them to use the Publick at a cheaper rate: And, if their Medicines be Sophisticated, the College, who have the Power to inspect 'em, shou'd look better to 'em. But, in short, if bad Medicines have crept in amongst the meaner sort of 'em, they have relied upon the Ignorance of the generality of that Prescribing Mode, who never were so well vers'd in the *Materia Medica*, as to distinguish the good from the bad; nay, this I know has been justly charg'd upon the College, tho' now those very Men are the great boasters of their skill in Pharmacy. But the Doctor insinuates all along that the Trade might have an absolute dependency on their Society, and they exercise a *French Government* over them and all the Faculty; he wants to establish an Authority where e're he comes, that he might Magisterially pronounce his Opinion, without using the flights and Artifices of a Jugler, to make his Tricks pass for establish'd Rules of Art. Now the *Apothecaries*

Throats are to be cut with a Feather, "We
" would not be suspected to design any prejudice to
" the Industrious and careful Apothecary. Here's
a fair confession of his design against the *Apothecaries* in general, but he wou'd not have them
suspect him, but that he has some share of kind-
ness however for the Industrious : I don't
question but they will thank him for his Civili-
ties all together, when they find he aims, not
at a Regulation of the abuses that are practiced
in the Trade, but strikes at the very destruction
of 'em at once, when he advises the Richer Fa-
milies to keep a stock of proper Medicines by
'em, to be compounded and mix'd by the Phy-
sician in their Houses, and to those that sell at
reasonable rates, he says they either buy 'em by
Whole-sale, or of the Chymist, and so they can-
not know whether the Ingredients be truly
good, but it may be suspected they are not ; as it
may for the same reason at the *Dispensary*, where
all their chief Preparations are either bought of
the Chymist, or made up by themselves, which
is worst of all ; since the best of 'em cannot be
suppos'd to have had more experience then a
Prentice Boy just out of his Apprentiship, which
they have not yet serv'd in the *Dispensary*. But
they presume not to set the prices on the Pre-
parations of the Shop ; a good reason for that
because they understand 'em not, as I shall prove
hereafter : Nay, they understand not their own
Prices, for some of their Societies, in their Pre-
scriptions to their *Dispensary*, sometimes mark
the very same Compositions at 6 d. one time,
and double the Price at another ; as several that
have

have had the same Bill made up twice or thrice, have paid every time a several price. He is indeed, (as he has reason) very angry with the *Apothecaries*, that they juggle him out of his Business, because they presume (as he does very often) that he understands it not. And that he never Collected his judgment in Physick, either from the *Greek* or *Latine* Authors, for then we might have expected he would have oblig'd the World with either of those Languages, when he undertakes to perswade 'em, that an *Apothecary* is not qualified to direct the Sick Patient towards the Recovery of his Health. Indeed he very well presumes upon what qualifications are requisite to make a Physician ; but I believe there is in the Practice of Physick many cases distinctly and perfectly known by every body, that all those qualifications necessary to a Physician availeth not in the Cure of, but all the advantage he gains by them at such a time, is to convert 'em into the Ornament of his Profession, and to embelish his Discourse : For tho' the uses of Anatomy are many, and the knowledge of the Position of the parts indispensably necessary, yet when the Body is diseas'd, the Blood and Humours have other Vagaries then in the usual Channels ; and the first approaches of the Distemper oftentimes contribute little to the discovery of the present Effect, in which the first cause is wholly Terminated. And whatever Dr. Pitt's Practice is, Collected from the Antients ; I am sure the Moderns that is built upon exact Observations, both of the Disease, and the Methods of its Cure,

Cure, are the only sure Rules to succeed in the Cure of Diseases. For he that leaves Nature to consult Rational Hypothesis's, only leaves the Substance to catch at the shadow. But now comes the cause of all the Mischiefs in Physick, and the disgrace of the Profession, the *Apothecary* has the Patient committed to his care, and he keeps in and shuts out what Physicians he pleases, and recommends those only who will give the highest encomium of his Skill and Judgment; this is the Misfortune the Doctor complains of, the *Apothecaries* will not call him in to their Patients, and recommend his Practice, tho' he tells what great things he, with the help of the *Dispensary*, wou'd do for the World; but now he dares not put those Methods in Practice, "Of
 "restoring some Disorders by the Rules of Diet,
 "Abstinence, and Exercise; by the most diligent
 "Observation of the Signs and Symptoms, by which
 "Nature craves to be assisted; least this should be resented and exploded, either by the *Apothecary* or the Patient.

I find still the four favourites in the *Dispensary* Poem, *M. Q. C. B.* are great Eye-sores to him, tho' their Practice is still found the most successful, by all those that have the good fortune to be committed to their care. And then, to wheedle the University Men into a favourable opinion of him, he would perswade 'em that their *Diploma* is Null'd by those worthy Physicians, and the *Apothecaries* Practice, when it is notoriously known the College pretends an Usurpation over the Universities, by prosecuting of their Members, and setting up an Authority to License
 what-

whatever Scoundrel Fellows will make application to them, and satisfy their Avarice. This is grown so publick a Scandal to their Body, that they themselves are asham'd of their *Colbatches*, their *Peachey's*, and several others that their Registers may blush to own; when, instead thereof, they have excluded the most Eminent Men of the Faculty. But he runs on declaiming against the Modern Practice, and ushering in the Testimony of *Pliny*, which is as foreign to his purpose, as his instance, of the introduction of foreigne Medicines, in the place of the more useful of our own growth, since I wou'd beg of him to show me what Medicines of our own can any ways equal these foreigne Drugs, *Opium*, *Rhubarb*, the *Bark*, the *Virginia Snake-Root*, and many others that I could name, the like of which we have none that can be admitted in Comparison; besides the Spices of *Cinamon*, and the like; whose excellent uses in Physick need not my Pen to recommend, since so many Ages have given them their Testimonies; but I suppose this the Doctor had from *Nich. Culpepper*, who said just the same thing about Fifty years ago, when he call'd the College Men a parcel of Blockheads for gainsaying him. Now if the Doctor had quoted so great an Authority, I know not how far it might have prevail'd among the Vulgar Mechanicks of the Dispensing Trade; but when he talks so Cathedrally himself, he gains but few Profelites to Worship the Golden Calf that he has set up: 'Tis very true what he says is much wonder'd at, "That the Publick Authority, or the College by it, do not put down the Scandalous

"ous Quacks in all the Allys of the Town: The
 "better part of the College has been always watch-
 "ful to prevent, and have apply'd various Remedies
 "to the Publick Grievances, from the fraudulent
 "Practice of Physick. Remember your old Friend
 Dr. Case, and you cannot forget how watchful
 the College is, that suffer such a grand Impostor
 to live under their noses, because he pays a
 yearly Salary for cheating the Publick, & *hoc*
sui juris, may live quietly in great Knight-Rider-
 street, if he sends but in his 30 l. for six Months
 Practice, and pay it once in Seven year. *Sal-*
mon indeed would not so readily submit to their
 Authority, and therefore chose rather to let
 the Lawyers share with them; but he might
 have rested as secure as the others, if he con'd
 have kept a good Tongue in his Head, for it
 was not his fraudulent Practice that rais'd up
 the Spirit of Persecution against him, but he
 bowed not his head to *Apollo's* Shrine, neither
 offer'd he Sacrifice to the Idol.

"They have by their Moral Statutes admonisht
 "their Members, and by easy Mulcts made them
 "asham'd of joyning with the Empiricks in a Com-
 "bination, which they know will at last prove fatal
 "to themselves. I wish Dr. Pitt wou'd some
 time or other oblige the World with a Scheme
 of the College of Physicians Morals, for I never
 heard they had any; but, if they have, I sup-
 pose with good Reason, they are some of their
 own making, distinct from all Mankinds beside;
 because they discriminate themselves by a pecu-
 liar kind of usage to their fellow Creatures,
 quite opposite to the good old Heathen, as well

as Christian Maxim, of doing as they wou'd be done by. They make their Members asham'd of joyning with the Empiricks. Who does he call Empiricks? I suppose he means the *Apothecaries* by what follows; "*This is the Shibboleth which discriminates the two parties of the Physicians*"; here he wou'd not have the Physician joyn with the *Apothecary* in a Combination; To do what? Not to thrust him and the *Dispensary* College out of their business, because they wont combine with the *Apothecary*, as they ought to do; that is, to cure their Patients, as *Hippocrates* says, *cito tuto & jucunde*; but this is Latin to their understanding, for the Dr. is so possess'd with a Phrensie against these inveterate Enemies of his, the *Apothecaries*, that he raves; and in his Exclamations crys out, the College! the College will be undone, if the *Dispensary* do not save them: Great is this Shrine of *Apollo*, which is now become the Shield and Refuge of defence, for all that put their trust therein. Now I desire you to observe the constant dissingenuity of the Dr. in representing things false; for he has scarce one plain Truth in his whole Book, but what he strains to some false purpose; for he says the *Apothecaries* rejected the giving of Medicines to the poor Sick, as propos'd by the City Committee; but he never takes notice that the *Apothecaries* give their Medicines to the Poor for nothing; but this, tho' false represented by him, is not the only Aspersion he wou'd throw upon 'em, but maliciously, and without any colour of proof, declares, as if notoriously known for Truth, "*That the Poor are*
pillag'd"

"pillag'd of all their Substance, in every sickness,
 "by the excessive Rates of the Apothecaries Phy-
 "sick; when, if this false Accuser had but en-
 quired into the Books of any *Apothecary* in
 Town, he wou'd have found abundantly more
 of the Poor, die in their Debt, than those that
 pay them any thing for their Physick; and I
 question not but there are many hundred Pounds
 of those Debts that *Dr. Pitt* may purchase for
 as many Pence. But he that goes to the *Dis-
 pensary* without Money in his hand, shall return
 as empty fist'd home; no Pence no *Pater-Nosters*
 there, tho' the *Dr.* wou'd have the *Apothecaries*
 trust, or give away their Medicines to the Poor,
 and get nothing at all by the Rich. This is his
 love to the Profession, that he wou'd ruin one
 part of it to build up another; but then he calls
 this Charity to the Publick, he won'd rob *Peter*
 to pay *Paul*, and be Canoniz'd for a Father to
 the Profession; tho' he wou'd impose upon the
 World his own Bastards, and disinherit the Li-
 gitimate Issue, and true Sons of the Art, for a
 Spurious Brood of *Sciologists*. He says, "The
 "Colledge, encourag'd by the concurrent Opinion of
 "the *Magistrate*, prepar'd both Chymical and Ga-
 "lenical Medicines, with the greatest Care, from
 "the highest pric'd Drugs and Simples. Who does
 he mean by the College preparing Chymical Me-
 dicines, &c. What some of their sorry Opera-
 tors, which they hired for cheapness, when they
 first set about this grand Work; the best of their
 pretentions, even now, is owing to what a Broken
Apothecary can teach and do for them, tho' I
 wonder how they can think to outface all Truth,
 and

and the knowledge of many Thousands, when they pretend to make Medicines they actually buy ; and I can produce good Evidence from several *Apothecaries*, who have seen their Medicines, and discover'd 'em to be ill prepar'd, and unfit for the service of their Shops : And very lately one of that Trade, who had procured a Bill from a *Dispensary* Member, went to have it made up at St. Peters-Alley in Cornhill, where looking into a Pot of *Diascordium*, he found it black almost as Pitch ; the Ingredients all naught and undissolv'd, and of a strange bitter Taste, upon which he enquir'd of the Shop-keeper what it was, who being jealous it was some inquisitive Person, wou'd gladly have fram'd an excuse, but had not a better extempory one, then to tell him it was the Scrapings of the Pan, and, by his neglect, set to, or over boil'd. And this is what they boast of to outdo the World in, viz. The exactness of their Preparations, which is but made a jest of among such of the *Apothecaries* who well understand the nicety and exactness of the Preparations of the Shop, in which there is no part of *Europe* equals the *Apothecaries* of *London*, both for well prepared Medicines and good Drugs. Nay, I can instance in their own Members, who, when sick, dare not trust the Medicines of their *Dispensary*; else I scarcely believe they wou'd make use of an *Apothecarys* Shop, if they thought their own so much better, especially when their own Lives lay at stake. This was Dr. Goodall, who, when sick, had all his Physick from an *Apothecaries* Shop, notwithstanding he has always appear'd so vigorous for the *Dispensary*.

pensary. This shou'd a great Dispondency the Doctor had of their Medicines, when it came to be his own Case: And yet these very Men wou'd perswade the World to a beleif of what themselves know to be otherwise, or at least fear so, when it really concerns themselves. Well then, if they dare not trust their so much boasted Chymical and Galenical Medicines, which they say they prepare with the greatest care; they will not be angry with me, I hope, if I doubt of 'em too; nay, if I tell them, particularly the Doctor, of several Excellent Medicines, both Chymical and Galenical, that neither he nor any of his *Dispensary* Friends can prepare as they ought to be, till they be a little better instructed in the Composition of Medicines then they are at present. To reap up the Blunders, that most or all of the *Dispensary* Members have frequently committed, as their own hands still attest against them on the *Apothecaries* Files, wou'd be a shame for the Authors of such mistakes; who now set up for Correctors and Exposers of the *Apothecaries*, who are living Witnesses of their shame and Ignorance. I wonder that Men of Sense and Parts, as some of them are, can be guilty of such delusion, as to pretend to rally and abuse those very Men, who are able to blast all the Reputation they cou'd ever aquire in Physick. But notwithstanding all this that their own guilt must convict 'em of, the Dr. goes on in the same fantastical Opinion of the Excellence of the *Dispensary*, " *They have proved by Experience, that*
 " *great Test and Touchstone, that this is a Remedy*
 " *Efficacious to cure the Corruption of the Faculty,*
 " *and*

“and all the Complaints of the Publick. It is possible, as he says, this may be Efficacious, but as possible as he meant, not Efficacious enough to cure the Corruption of the Faculty: The Doctor still puts upon the World, and wou’d impose his own saying for undoubted Testimony; For what time have they had to make such strong proof of their Infallible Touchstone, (as they wou’d have it to be) that they are sure it is sufficient to stay all the Complaints of the Publick.

Amongst the Profession, and Men of the best Parts and Business, their Project appears so far from curing the Complaints, that it is look’d upon, and exclaim’d against, as a selfish design, without any other end in it than Prejudice and Malice. These Men who ought to understand the *Materia Medica* as well as themselves, nay, some of ’em who understand it much better, do affirm it, as a thing impossible, that they shou’d make up Medicines at a cheaper rate than such who have understood the buying in of Drugs for so many years, and much better than they dare pretend too; and as to the Compounding part, ’tis inconceivable how the Dispensarians can assume any competent share of knowledge, how much less they can, with any show of Reason, make their boast of excelling the *Apothecaries* at their own business; which no Man in his Senses cou’d ever imagine

gine or dream of. But the Doctor has given such large assurances of his Friends abilities, in the Dispensing business, some whose Modesties are greater than their knowledge, have ingenuously discover'd their naked simplicity to free themselves from the trouble of carrying on a trade, they had not sufficient stock of assurance to manage to the height. The next wheedle you have, is of much greater force to draw in the Customer than any of the foregoing, for here they buy and sell without gain. Just so the Mountebank declares he values not your Money, 'tis your Love and his Reputation engages him to sell his Arcana for the price it cost him, and you shall have Jack-Pudding's Packet in at the bargain. "*There never was, or ever will be the least profit, beyond the necessary expence of Servants, &c.*"

I wonder any body shou'd doubt the Dr. since he promises so heartily, you shall never be cheated; he is so well assured his Touchstone will cure all their Corruptions, that it shall never return upon the faculty again: If he cou'd promise but as largely to his Patients, he wou'd have no need to learn Experience at the Dispensary; but I fear his Promises come to nothing, he talks so much of leaving Nature to expel the Disease. But to proceed, here's a heavy charge against the Apothecaries, "*That in the Bill of Fifty Pounds,*"
more

“ more than Forty is the fee ; tho’, of late years,
 “ a separate Article demands other Fees for the
 “ Advice and Attendance. Sure the Doctor’s
 acquaintance has lain amongst the inhumane
 and Gold-thirsty, as well as Blood-thirsty *A-*
pothecaries, that he has seen such unreason-
 able Bills of Forty Pounds profit in Fifty ;
 it had been but doing Justice to the World
 to have such Men expos’d, and to have given
 an Example of the Person, if you knew such,
 and if you do not of your own knowledge,
 I’ll leave you to judge what you deserve, for
 such sort of Scandals only asperse the Authors
 without particularizing the Persons guilty ;
 And to talk of such things at random, is still
 like *Pickl’d Herring’s* Rodomantodo’s, which
 serve for an Introduction to the Doctor’s
 History of his Cures, which, tho’ deliver’d
 for serious and grave Truths, are much the
 greater Fables of the two ; and the first part
 that every body took for Romance, when
 consider’d, may have some truth in it, (as
 when he says his Master comes to cheat ’em,
 but hopes they don’t believe him, for that
 he wou’d not have them,) but the last knows
 every word is false he utters, yet hopes they
 will believe him. I wou’d gladly know of
 the Doctor, when he ever knew an *Apothecary*
 demand any thing for attendance, which he
 calls a seperate Article ; but supposing he
 has known it, which I never did in *London*,
 it might be reasonable enough, since there

are some Patients who give 'em trouble enough in their sickness, besides the late mode of short Visits paid by the Physician to the Patient, require some body shou'd be present in the more urgent occasions, and when the Physician will not give the necessary attendance, that is oftentimes requir'd in the more accute Diseases : And this is not to be imputed as a fault in the *Apothecary*, but in the Physician ; and it is highly reasonable, when he is detain'd from his business of the Shop, that he shou'd be paid for his time ; and this People of Quality, who require their Attendance, consider, and gratify them accordingly. Now, if the Doctor have so much ill Nature as to grudge them a reasonable Reward for their Labour, he ought not to be so uncharitable as to lay this to their charge, as an imposition on the Publick ; tho' in another Place, to mask and cover his designs, he tells you in plain contradiction to himself, "*To pay the Apothecary cheerfully the best prices for the best Medicines, to reward his Industry and Care, and for all his extraordinary services be as generous as you please.*" But he wou'd never, by his good will, have you make use of him ; for he endeavours to fright you from that, before he makes use of those sugar'd words, by telling you, that six Boles with the draughts are a Guinea profit to the *Apothecary*, which equals the Physicians Fee, and gives the Doctor

For great disturbance in mind to think of it; tho' at the same time he tells this story to the World, he cannot make any thing like it appear for Truth. " *But the second*
 " *consideration is alone sufficient to remove all*
 " *the Objections against the Dispensary, to pro-*
 " *test and recommend it to every one, who shall*
 " *think his Health and Life worth our care to*
 " *preserve them; that we having no advantage*
 " *from the Medicines, have no Bias to direct*
 " *us from curing our Patients, by very few, or*
 " *the low pric'd Medicines, which have the great-*
 " *est Vertues.*

This the Doctor will urge again, that the low pric'd Medicines have the greatest Vertues, on purpose to make out his designs against the *Apothecaries*, for setting high prices on the best Drugs: Why did he not instance in some of those low pric'd Drugs, that he might have convinc'd every body by undeniable Testimony, but that his intentions are to impose upon Peoples very Senses, and against what is most notoriously known to the contrary. Is *Opium* the cheapest Drug that is sold, or the *Bark*? Is the *Goastone*, which he mentions, or the Oyl of *Cinnamon*, which, in its kind, nothing excells amongst the vilest pric'd Medicines? Or what does the Doctor think of the *Volatile Salts*? Are they purchas'd by him at such insignificant Rates? Or does he know the Excellent

uses of the *Viper*, *Amber*, and the like, whose Rates, if Genuine, are very considerable? And if he fancies he has discarded *Bezoar* from its known use in Physick, because its price wou'd not square with his Project of making all the useful Drugs in Physick of no value. I must tell him he only dreams of Physick, for no Man wou'd think it ever was his Study, or however not reduc'd to Practice, but of this in its proper place, where he utterly condemns the use of *Bezoar*; but certainly there must be somewhat in the Doctor's head more than is discoverable to the naked Eye, when he advances such things for Truths, which every *Druggist*, *Chymist*, and *Apothecary* know to be manifest falshoods, as will be shown more evident when I come to examine the Prices he sets of known Medicines.

In the mean time, How shall the World be assur'd that they have no advantage from the Medicines they sell at the Dispensary, since they vend 'em at as high Prices as the *Apothecaries* do in their Shops? And then his high pitch'd Reason, which he is confident will remove all the Objections against the Dispensary, is of no weight, but that they may as well be byas'd in curing their Patients there as the *Apothecaries*. And then pray tell me how are you better guarded against the Temptations of Gain and Avarice than
the

the *Apothecaries*. We have only your bare Word for it, “*That there never was, or ever will be the least profit beyond the necessary expence of Servants, &c.* And we have all the Reason in the World to believe to the contrary; since, in all the Publick dealings of the Dispensary College hitherto, they have manifested themselves to be Contentious, Revengeful, Avaritious and Self-interested; besides the Necessities the Publick stock lies under, being but in indifferent Circumstances, wou’d naturally create a jealousy in People that they have reason to make as good use of their Money, as the *Apothecaries*. Therefore this Consideration, on which he lays such wonderful stress, appears to have no more validity in it, when you come to examine it by the common Touchstone of right Reason, than the rest of his Arguments in behalf of his all sufficient Dispensary. And as for the other subservient Arguments he propo- les, I cannot see why they have not the same force, in behalf of the Modern Practice: Cannot we apply the most proper and specifick Medicines as well as they? And cure the Patient with the Consumption of as few Drugs, and in the space of as few days? Or why are not we able to distinguish the Operation of one Medicament from another, or conclude with as much certainty as the Dispensary College? Why truly thus it is, “*The Physicians of the*

“Dispensary have the opportunity to observe,
 “when Nature in the most accute is able to pre-
 “serve it self, and can permit her to effect it.
 I must confess indeed, if they think because
 they have more time, they have more op-
 portunity, they are in the right on’t; but I
 cannot see any reason why, when Nature is
 able to preserve it self, they shou’d deny us
 that equal Pow’r, as to be able to permit Na-
 ture to do her own work as well as they.
 But the Doctor, with all the nicety of a Dis-
 pensarian, can discover, “The proper time of
 “giving the Alexipharmaks, and of stopping
 “their use, when they are needls or injurious;
 “and can in time perswade and divert the Peo-
 “ple from those the most destructive excesses and
 “detamleries of Physick, Nay, and I can tell
 you a better knack he has than all this, he
 can discover a Physician of the Prescribing
 Mode, or an Apothecary, by the long keeping
 of their Patients; for the Dispensary keep
 theirs no longer than the making up of the
 Bill.

“You have heard of the sad disaster of one
 “Poyson’d by a Composition design’d for another,
 “of one Chymical Powder for another; or the
 “errors in the number of grains or drops. In-
 deed I have, with a great deal of concern; and
 of some Dispensary Members that prescrib’d
 as follows, Of a Winking Doctor that or-
 der’d 30 gr. of Corrosive Sublimate, for Sweet
 Sublimate,

Sublimate, by which means the Nails of the Patient, and the Hair of his Head fell off, and it was GOD's Mercy the Patient liv'd, both for his own sake, and that the World might know it. One that wrote *Rx. Ocul. Cancr. ℥iij. gas. Sulphuris MS. F. Pulvis*. Another that Prescrib'd, *Rx Flor. Sulphuris ℥i. Ol. Cinam ℥β.* for a Dose. Dr. Torlesse that Prescrib'd four Ounces of *Vinum Emelieum*, for a Dose; and another that only mistook *Confect of Hammeck*, when he should have write *Confect of Hyacinth*; now the one is a strong Purge, and the other a great Cordial. And another of your Members in a burning Fever prescrib'd *Aq Pæon Comp. libat ad libitum*. Do you imagine this never affected the Nation, or that the College will plead guilty, or expell their Members to prevent such like Mischiefs for the time to come? But such Men are become Scandalous, and do not trouble themselves about these little matters? "The Subscribers therefore to the Dispensary are impertinently busie, (who ever made any doubt of it, since they turn'd Apothecaries) "and make the People undervalue them, by the care they use in their turns, to buy the best Drugs, and observe their Preparations, and providing Servants, on whose Skill and Fidelity they can depend. He speaks very true when he says the People undervalue them, but 'tis not for their care, but impertinence, about a matter they are strangers to, and for which

which the Publick wou'd suffer if they did otherwise than undervalue them; for every body that has a concern for his Health, cannot but observe, how industrious they have been to deceive, by a pretence of knowing more in a business which has been altogether forreign to their Practice. For if they have been guilty of such gross mistakes, as is apparent against them, they ought to clear themselves from the imputation of that guilt before they set up to defame others of Establish'd Reputation. And then to tell the World they take care by turns to provide Servants, and observe the Preparations: I wish they wou'd tell us whose turn it was when they hir'd a poor ignorant Fellow that had beat a Mortar a few years to an *Apothecary* at *Durham*? Or whose turn was it when the *Diascordium* was spoil'd? For it was a great pity that the chief Preparation, of which they make such boasting, shou'd be spoil'd as to come under the Censure of an *Apothecary*; but this it is to manage by turns, for what is every bodies work, we say, is no bodies. Do they work in a Sellar? Or can they think their deeds must never come to light? What presumption can engage them to an open defiance of all Truth? Do they, because they have relinquish'd it, think it dead to the Profession? Or are they resolv'd by force of Arms to oppose it? But the Doctor, I find, resolv'd to maintain his own assertions against

gainst all opposition ; he says, no improvement can be made in Pharmacy, but from the Physicians making the Proof and Tryal. But I must tell him if the *Apothecaries* did not daily make more improvements in Pharmacy then the Physicians, not half the Bills constantly sent to their Shops cou'd be compounded according to the direction of the Prescript ; and they are fore'd to explore new ways to reconcile the absurdities that some Physicians put upon 'em, by reason of their unskilfulness in the genuine Composition of Medicines. Therefore the *Apothecaries* have justly complain'd, (as he says,) “ *That the Physicians*
“ *are ignorant of the goodness of Drugs, and*
“ *their Preparations* : The Reason, as he proceeds, is this. “ *Because they have not many*
“ *years presum'd to displease or trouble them, by*
“ *any concern in the Shop.* He is mistaken again, for 'tis this ignorance has given them abundantly more trouble in the Shop : For first, if they had understood the Compounding part aright, they had freed them from many inconveniences, and eas'd 'em of a great burthen : And, in the next place, if they had busied themselves more in the Shop, there had never been these misunderstandings betwixt them ; they wou'd then have known exactly the trouble, as well as difficulty, of some of the lesser Compositions, and that there was something more than the Prime cost, to be set down for the Boles, the Pills, and
other

other forms of Medicines, if they had duly weigh'd every Circumstance, as they ought to have done if they had understood them. For if the Antiquated, Absurd, and Useless Compositions of the *London Pharmacopæia*, (as he calls 'em) were impos'd upon the *Apothecaries* to make up, they ought not now to cast the Reflection on them, but take it to themselves, and consider, they shou'd have been more sparing in throwing the Odium at their door: And likewise reflect, that there are many Compositions in that Dispensatory that require great trouble and exactness in the Collecting of choise Drugs for that Service, which deserves to be consider'd as well as the Price of the Drugs themselves; besides the Multiplicity of these Compounds that the College requir'd the *Apothecaries* to keep by them, ought to be consider'd as an Item to every Bill; but this the Doctor leaves out, when he Taxes the *Apothecaries* Bills at forty Pound Profit in fifty.

“ *The Dispensary Physicians have the opportunities to make every simple confess its Vertues by various and repeated Examinations,*
 “ *and of distinguishing the certain Operations*
 “ *of the Compositions and Preparations they meet*
 “ *with in their Authors, or can suggest one to*
 “ *the other in the great consult of their meetings*
 “ *at the College: I wonder the Doctor shou'd*
 be so much a stranger to the Practice of other
 Physicians,

Physicians, as to assume to themselves (as he wou'd make the People believe a peculiar Practice more excellent than others) what every Physician that has a right to call himself so, not only knows, but makes his constant Practice; that is by various Repetitions of tryed Medicines, he makes every simple discover its Vertues to him, as well as the College can; and no doubt if he be able to distinguish aright, he will force an opportunity to do so: As well upon the Operations of the Compositions and Preparations which his own Practice has given him the clearest knowlege of, as what he meets with in Authors, or the great Consult of the little College can e'er suggest to him. But this is pitiful trifling, and looks only with an insinuating Air of Deceit. "*We may presume in the fifth place to affirm, that the Dispensary may instruct the Physicians in the other Part of their Art, viz. The Knowlege of Distempers.*" I think you have presum'd in every Place to affirm what you are no more able to make good, than you are to instruct the Physicians in the other Part of their Art; because you have many Chronical Cases applying to you every Day: What then, how are you the wiser, if they never give you the trouble again to understand whether the Prescript believ'd them or no? As many of 'em fit you, because they know if they come more then once, they must pay for their Advice, for they declare

declare they only run to the Dispensary in hopes to be cured for nothing, as you promise them. How then shall you be able to instruct others from this blind Practice? 'Tis true indeed, you may perhaps find the Disease sincere, but seldom find the Patient so sincere as to trust you with the cure, but I find you are easily deceiv'd, when you think so many of your Chronical Cases are reliev'd by one or few Prescriptions, because as I said before many of your Patients, wont give you the satisfaction of a second Visit; but you take the cure for granted, since you hear no more from the Patient; who afterwards often Address themselves to your *Fraudulent Empirick* (the Apothecary) that *Unlicens'd Undertaker of Cures*; who commits them to the intelligent Physicians whom they do not only suppose, but know to understand the distemper however vitiated; and as effectually as well as sincerely restore them to their Health again, but the Doctor still goes on presuming: "*The other Physicians cannot be suppos'd to understand any Part of the Distemper, the first Symptoms, their Progress, and the manners of their discharge; but only the End often fatal, being call'd in to justify and complement all that has been done, and to comply with the fashion of having a Doctor some time or other.* How pleasantly, but deceitfully the Doctor argues, and draws general conclusions from particular Examples, sometimes

times it happens, and often the sudden exigency occasions it that a Physician is call'd in too late, to give Nature any assistance in some of the acute Cases, but what is this to the instance he himself makes of their great advantage over the others in Chronical ones: He may know if he does not, that all the Physicians in Town that have business, are daily supply'd with Chronical Cases and from the Apothecaries too, who advise and Counsel them to the Physician at the first insult of the Distemper unvitiated and sincere (as the Doctor wou'd have it) but sometimes it happens the Patient is in hopes the Distemper will wear off without a Course of Medicine, and therefore declines for a time, being willing to take some small matter, such as the Apothecary in those known Cases has seen Experimented. This is the Case frequently, that the Patient will not be perswaded by the Apothecary to take the early advice of the Physician till he find the Disease press hard upon him, and then he is more ready to comply; and this ought not to be imputed to the Apothecary, or the Physicians as a fault in either: But the same Cases will happen to the Dispensary from the Patients averseness to Physick, till necessity compel him, as does to the Modern Practitioner. And therefore all that show of reason pretended is, *as sounding Brass, or a tingling Cymbal, or as the scraping of a Fidler, that does not entertain but*
grates

grates your ears. Now the Doctor is certainly right in the instance he gives, but wrong in his application, when he says, your Health and Life can only be provided for, by the observations made on the more numerous Part, where Diseases are more natural, and like the first draughts of a Picture, more easily distinguished. But why must this knowlege be confin'd to the Dispensary, when all the Physicians in Town have the same opportunities for the like Observations. " If
" you will therefore permit us to acquaint our
" selves with the Drugs, and to examine their
" Comparative Goodness and Vertues, and to
" enquire into the late invented Modes of pre-
" paring them; if you will allow us to observe
" all the various Cases the Town affords, almost
" in one view at the College, and the other dis-
" pensaries; and by the Poor Patients foresee
" the Diseases, which shall in the Season make
" their Progress to the Rich, and in our Meet-
" ings in common with all other Professions,
" Communicate our own, or our Authors Apbo-
" risms of the several Arms and Stratagems,
" to be used against the dreaded Enemies, Dis-
" eases and Death: The Apothecaries, he
means for what else do they consult of in
their Meetings at the College; but such Stra-
tagems as may most securely ruine the Apo-
thecaries, and raise the sinking Reputation
of the Dispensary and themselves, as well
as maintain the Reputation of the cheapest,
but

but most Valuable Preparations, the Doctor is still fearful you shou'd forget, that the most Valuable must be the Cheapest, to Answer to his Scheme of reducing all the most useful Medicines to the vilest Prices. But this he so often inculcates to his Reader, that it grows very insipid before you have gone through with all his Tautologies. Again, I cannot allow him what he wou'd insinuate to the World, that they have all the various Cases to observe that the Town affords, and this as it were in one view from the Triple Prospect that their Shops afford them; the Doctor is really too Bashful and Modest in his last Paragraph, to introduce what he wou'd not have People doubt of in the least for Truth with a bare inenudo, if so be, it was so, it wou'd be so; and there is no doubt but if the College were as deeply concern'd for the interest of Men's Healths, as they every where show themselves to be for their own private ends. No Man wou'd deny them either the Privilege or Opportunities of consulting the welfare of Men's Lives, or the advantage of communicating their Thoughts to each other. But since it is so apparently known, the great Consult of their Meetings are chiefly design'd against the true Interest of Physick, and the Honour and Reputation of the Faculty, I cannot allow their pretences to have any sincere Intentions for the good of Mankind, for if the Innocency and Usefulness of their designs

D

were

were justified by their real service to the Publick, What unbiass'd person, who can pretend to no interest on either side, wou'd attempt either to oppose or obstruct their attaining those ends, by which they endeavour to preserve the Faculty from those Corruptions with which they have so grossly abus'd the World? Now I say, What impartial Man wou'd attempt to excuse the guilt charged so home upon all the Faculty, if he was not thorowly assur'd the charge, in every particular almost, was false, and the Accusation as fraudulent as the Accuser; who, if he be able to free himself from the guilt of Prejudice and Falshood forg'd in his own brain, I will acknowledge all the Doctor says for Gospel.

But he shows himself so visibly partial in every Page, I cannot pass by the observation that the Doctor's Zeal and Concern for the Dispensary, (which he wou'd perswade the Reader to believe is his pity towards him and his Posterity,) won't permit him to consider how fallly he draws his Conclusions, if so be they will but answer to his intentions of satisfying People, That the *Apothecary* can never give you Physick without great prejudice and danger to your Constitution, that you must never retain an opinion for a Man whose Interest it is to advise to much Physick, (except he be a Dispensarian,) and thus he

he argues that you may never send for the Apothecary, because he cannot be absent from the Shop, without the hazard of the Physicians Reputation, and the Patients Life; tho' perhaps, at the same time your Physician is not to be found, but at the Tavern, or in a worse place. What wou'd he have the Patient do, when the Doctor won't, or can't be met withal? Have no regard or concern for himself, till the Physician pleases to consider that he had almost forgot his Patient? But to the Doctor's Argument.

*" It being impossible to correct the Poy-
" sonous qualities of Medicines, when the ad-
" viser shall make himself his advantage by the
" number of Doses he can lay before the Pa-
" tient.*

If any Man can understand the consequence of the Doctor's Argument from his words, he must have a more penetrating judgment than I dare pretend to; for pray where is the advantage to the adviser, not to correct the Poysonous qualities of his Medicines? For, if it be from the number of his Doses, his Profit arises, as is most certain, he has reason to be concern'd for the correcting of any Poysonous qualities that may be in his Medicines, otherwise he will never have the opportunity of obtruding many Doses on the Patient; but as the Doctor has worded it,

the Argument lies quite against him ; for the *Apothecary* has all the Reason in the World to be careful and folicitous about the correcting of ill qualities in Medicines, and rather to render them more grateful, that by that means he may perswade the Patient to the freer use of 'em. But supposing the matter was as the Doctor, we may suppose, design'd it, and as he expresses himself in some other places of his Book, that they did not duly consider the health and Recovery of the Patient, because they had an Interest and Advantage in the Physick they administer'd to him ; even in this he contradicts himself, when he contends for the Antient Practice of Physick, and says every Physician must make up his own Medicines, if we design to succeed in the Cure of Diseases. Then I wou'd ask him, if we shall not all be in the same predicament he places the *Apothecaries* now ? And whether we shou'd not be for advising much Physick for our private advantage as well as they ? But if one sort of Men cannot be trusted, I know no Reason why any others should, since the Recovery of their Patients is as much for their Interest and Credit as it is for the Physicians ; and consequently they have the same Reasons and Inducements to obtain the same Ends the Physician has. But then he says, " You do not consider that they
" take the Practice of most Families to them-
" selves, that they openly declare, they will take
" it

“ it wholly into their own hands, reserving five
 “ or six of the College to give up insensibly the
 “ Profession to them. This is what he cannot
 forgive in the *Apothecaries*, and you may discover the seat of his Distemper in these words, he will tell you what it was rais’d his spleen to such a degree, even in spite of himself, he cannot conceal himself when ever he mentions the *Apothecaries*, or his Rivals of the Faculty, that hurry all the business away from him, and leave him to write Lamentations, Exclamations, and the like, whilst he plies at the Dispensary, as the *Water-men* do in their Turns at the *Temple-stairs*. Here again I cannot but blush for the Doctor’s Modesty, when he tells us of the Care of the Universities, with the College supporting the Dignity of their *Diploma*, and the Interest of the Publick. I hope we shall find better Friends then the College to support the Universities *Diploma*’s this Sessions of Parliament; for who has made it their endeavours to suppress and discourage University Men more then the College, else why do you admit such a Crow’d of Lycentiats, that are scarce any of ’em qualified by the Laws, or the Intention of the Statute by which the College is founded. Is this supporting the Dignity of the Universities *Diploma*’s, or the true Interest and Honour of the College, let the World judge. But it is plain what the Doctor has urg’d, as he imagines, (for all he

says is but little better than imagination) for the benefit and service of the College, under which he includes the whole Faculty, appears so far from being of any use, that it tends to the lasting shame and scandal of the Profession, and will be always a brand of Infamy on Doctor Pitt, that all the force of his Imagination can never wipe off.

After the Doctor's fancy'd Compliment to the Universities, he falls foul upon the *Apothecaries* again, and runs divisions with his medley of jargon that wou'd confound an Algebrist. Sometimes you must pay the *Apothecary* chearfully, then again never make use of him, or if you do, be watchful he do not bring you in a Bill of Forty Pound profit in Fifty, and be sure you adjust the proportions of your Reward to him. And then, like one in a Frantick fit, he talks of the Surgeons admir'd Success, from the Applications to the frightful Ulcers and the terrifying Gangrenes; and tells you strange things, that Nature has given him his Instruments of Steel, I thought Nature had given the Doctor more Wit, than to think that Nature makes either Steel or Instruments; but he's for taking the Trade out of the Instrument-makers hands, as well as the *Apothecaries*, and assigning all to Nature, the Common Mother, as he says, that does not desert or neglect in their distress those whom she every day provides

vides for in their Health. Now he talks like an Almanack-Maker, who tells you when it does not Rain, its fair Weather; so he tells you, when Nature provides for you, she does not desert you. But all this while, she neither makes Launcets or Incision-Knives; tho (as he says) she may teach us a great many things, and undoubtedly is a good School-mistress, if we understand her rightly: But, in short, he pursues this Mistress of his so far, that if we follow his directions, we shall be Natural Philosophers, or Natural Fools; For Nature directs by the Senses, or particular and unobserv'd Impressions, to the use of her Simples, which shall alter or remove the causes of the several Diseases. It's true, we ought not to go against the Testimony of our Senses; but then, of what use are they, if the Impressions they make be unobserv'd? They are but blind Guides, without the help of Reason and Judgment to regulate 'em, especially when they escape our Observation: But this it is to be a profound Naturalist, to observe that long-liv'd People have the greatest Vigour and Health, and that Labour and Temperance produces both long Life and Health; tho' this is more frequently observ'd the contrary, That People of sickly Constitutions have often liv'd to great Ages; and that the most Temperate and Laborious are as much affected with Gout, and Stone, and Rheumatism, as the most Irregular and De-

bauch'd : So that there are no general Rules to be concluded on, since Temperance in some Constitutions is the chiefest cause of their Disease ; and again, Intemperance in others have freed 'em from the most violent Distempers. Not but that this is a Nicety, that the particular Constitution ought to be well understood, before the Physician attempt to prescribe a Debauch ; so likewise, the same caution ought to be used in the advice of Abstinence : For as it may prove the most powerful Antidote, to prevent or expel the most violent Diseases ; so likewise equally with Excess, it may disturb and offend the Constitution it was design'd to relieve.

Water, and the most simple Diet of the Grains and common Fruits, produce the strongest Blood, (that is, I must confess, a term I understand not) and the most active Spirits.

This is utterly against the common Experience of this Nation ; for take our *Englishmen* abroad, and feed 'em upon that simple Diet, (tho' the best in its kind the World produces) and you'll soon make very simple Soldiers of 'em: When the *English* Food is out of their Bellies, I know not how strong their Blood may be, but it's certain their Bodies grow weaker, their Spirits languish, and their whole Constitution is soon broken, as the daily experience of our Men abroad
testifie :

testifie : This may be a good Physical-Diet, but it's no Fighting-Diet ; and therefore, I doubt, procures but little Strength and Activity ; notwithstanding we have the Doctor's Word for it. But still we must pursue Nature, even through the Fire, tho' she be so disguis'd, that none can know her again but the Doctor, who must be as understanding as the Old Woman Mr. Cotton relates the Story of in his Lines of the *Peak-Wonders* ; who (as the Tradition goes) is said to have put a Goose in at *Elding Hole*, and she came out again at the *Devils Arse*, but without ever a Feather on her Back.

*She was indeed a Matron Grave and Wise,
That knew her Goose again in such disguise.*

But Nature (he says) has given, as by the Chymical Extracts, That the smallest Qualities can produce the greatest Operations, by raising and invigorating the Spirits, heating and moving the Blood. &c. I thought all our Chymical Preparations had been the productions of Art, and not of Nature ; but the Doctor, I find, makes any thing of her ; sometimes an Instrument-Maker, now a Chymist, but she won't make an Apothecary ; for that is such a fraudulent crafty Art, simple Nature has nothing to do in their Compositions ; and if you'll but observe by and by he expunges her out of Chymistry : For tho' he gives
you

you such an Encomium of those Preparations just before, that wou't answer to what he intended to say afterwards; and so now the violent Sublimations and Distillations of Chymistry, only support the Hopes of the Sick; tho' before, he was of opinion, they invigorated the Spirits, heating and moving the Blood; they are of no manner of use now, because the Profession, by introducing such Medicines into fashion, shall have no pretence to deceive, by telling their Patients, They are extraordinary Preparations, and only to be purchas'd at great Rates. So, because the Practicer shall have no advantage by the credulity and weakness of the Richer Patient, no Medicines shall be of any use or service, but such as the Doctor has tried by his Infallible Touchstone, and pass'd his Fiat upon: If he tell you Chymical Medicines can produce the greatest Operations, and afterwards says they are good for Nothing, you are bound to believe what he says: Because *in the Hands of an Artist, the most despicable and useless have been brought into the highest esteem, to be rely'd on in the most difficult and dangerous Diseases, as able to revive the most languishing Spirits, and alone put a stop to departing Life.*

You may see he scorns to impose upon the World, to amuse or deceive 'em, or put any Fallacies upon the unhappy People, who
suffer

suffer themselves to be deluded: But when he says, The useles and despicable Medicines are the most Useful, and the most powerful and exalted Spirits are Useles, it is but believing him, and the business is done; you are Cured without being Cheated, and your Credulity impos'd upon.

The Doctor is Poison'd no doubt of it, and I fear beyond the Power of *Bezoar* to afford him any Relief; for sometimes I find the cold fit is upon him, his Blood is coagulated, and his Spirits stupified; and then he dreams of Water-gruel, simple Diet of the Grains, and the like: Spring Water for his constant Drink, and Pease-porridge for his Luxury; then again the Blood is all in a ferment, and the Doctor on the high Ropes, when the exalted Chymical Preparations invigorate his Spirits, heat and move his Blood, whilst in that Ebullition it boils all over into the Apothecaries Pots and Glasses, and nothing can allay it till they are all broken and dissolv'd to Nothing. He raves incessantly against *Bezoar*, which will be the only help for his Malady, if he wou'd but be perswaded to make use of it himself, as he does to his Patients; but it is a dangerous Stone in the Hands of the Apothecaries, and makes a deep impression into the Patients Pocket, which the Doctor consults more than the Disease; for no Man in his sober Senses cou'd ever imagine he shou'd

shou'd take so much pains to perswade the World that *Bezoar* is so far from being Cordial or Alexipharmick, that it is altogether useles in Physick, and yet at the same time prescribe 30 or 40 Doses of it together to Mr. Shore's Shop in *Newgate-Market*. But perhaps he will excuse himself, and say, The *Pulvis e Chelis Compositus*, he did not think had ever any *Bezoar* put into the Composition by Apothecaries. He says Dr. *Guybert* convinc'd the *French*, that they had been impos'd on; which I find they are resolv'd still to be; for the Modern Practice of *Paris* mightily runs upon it to this day; insomuch, that a famous Abbot whom the *French* King obtain'd a Dispensation for from the Pope to Practice Physick, call'd *l'Abbe d'Agneau*, had such a wonderful opinion of the Vertues of *Bezoar*, that he very insipidly directed it amongst 30 or 40 alterative Drugs that were to be made into an Apozeme.

I must confess it was the oddest Prescript I ever saw, and the most ridiculous; which I chiefly mention'd, to shew his Opinion of *Bezoar*, tho' introduc'd by head and stoulders, and to no mannee of purpose: For if it had been the best Medicine in the World, it cou'd have done no service as it was directed.

But

But the Doctor takes a great deal of pains to produce many great Authorities, which are all to prove it worth Nothing: And yet I wonder he shou'd impose upon his Patients this scandalous Stone of Offence: But I believe it is to keep up their Imaginations, for which he commends it as an excellent Medicine. For you must consider, he loves to feed and cherish Imagination in himself as well as his Patients: For one to whom he had advis'd the Tincture of *Hiera Picra*, he charg'd strictly to go to the Dispensary for it: The Patient ask'd if the Apothecary had it not; he answer'd, not a drop that was good: The Patient not satisfy'd with that, went to her own Apothecary, ask'd if he had any of the Tincture that was very good, for Dr. Pitt had told her, there was no such thing to be had amongst the Apothecaries. Accordingly she bought some, and when the Doctor came next to pay a Visit, he takes up the Bottle, and smiling on the Lady, *Look here, Madam*, said he, *This is like a Medicine! There is no such to be had but at the Dispensary.* The Lady frankly told him, her own Apothecary had furnish'd her with that excellent Preparation, if it was such: Upon which, the Doctor run down Stairs with as much haste, as a Dog with a Bottle at his Tail.

The next great Stumbling-block to our Author's Practice, is *Pearl Bezoar*, which he call a Disease in a Shell-fish. But let it be what it will, I shall not spend much time about it, but only remark upon the Doctor's Argument upon it and other Alkali Powders, which will imbibe the acid Humours in the Stomach, and, as he says, ferment and raise an emotion in the Blood; tho' a little farther he has forgot himself, and falls to his old way of Contradiction, and says *Upon the taking of Pearl, it will necessarily follow, the Blood will want its ferment.*

Thus he Reasons backward and forward, just as his fancy leads him: But whether it is his Incogitancy or the natural Products of his Brain (for you must be given to understand, he follows Nature to the very last extremity) that makes him liable to these common Mistakes, deserves your particular Reflections.

It must be confess'd, he is a Critical Animadverter upon the debauch'd method of Practice of our modern Physicians, else he wou'd never call Sweet Bitter, and Bitter Sweet, as he does, where he ranks Broom amongst the Sweets; and is so fond of being esteem'd singularly Excellent, that Ground-Ivy, Sanicle, Liverwort, and some others, must

must needs be of the Turpentine-kind, because he has a mind it shou'd be so: But more of this in its proper place. It's true, he justly explodes the use of Gold and Silver, and some of the Stones falsely call'd Precious, which ought to be disregarded in the Cure of Diseases. But then, the reason for the general disuse of all, is not so ridiculous as he would have it to be, because you administer some of 'em in a hard gritty Powder, as in the Confection of Hyacinth. He says, there are many Reasons to be given, why they corrode and offend the Stomack, but offers none: And in the mean time, I am very sensible of the good effects that many of 'em produce, by fretting and wearing off the too great glutinous Mucous that adheres to the Coats and Fibres of the Stomach and Guts, which hinders the percolation of the Chyle. Tho' he says, the Stones that can be calcin'd have their proper uses in Physick; and then they may be all of use, for they are all capable of Calcination; but of greater use some of 'em are without it.

The Instance the Doctor gives us of *Sarsaparilla*, I take to be very Judicious and Correct, if he would but be as exact in his Prices of Medicines, when they fall under his Examination; for I find *Cent per Cent* breaks no squares with him, when he was uncertain whether it was a Penny, or Twopence the half Ounce,

Ounce, in his first Edition; but in his second, having sent the Catalogue of Drugs he design'd to mention, to be Pric'd by a Drugster in *Ludgate-street*, he had some Priced at double the Value he set upon 'em before, and some at a much less Price. This is to show yon how little he understood the true Value of 'em himself, notwithstanding he pretended so Magisterially in his first to ascertain the true Prices of Medicines. I think he has done more service to the Faculty in his last Valuation, than he did injury in his first; which whosoever compares together, will find the Doctor never consulted the true Rules of Medicines any farther than they would answer to his Intentions, of making them all of little or no Value: For else, why shou'd he have taken so much pains to have the prime Cost of Drugs examin'd, since he never design'd to enquire at what Prices they might reasonably be afforded out of the Apothecaries Hands, when compounded, and the reasonable allowances made to them for Shop-Rent, Servants, Utensils, and the like, which the Doctor never dreamt of, when he reckon'd his *Electuarium Balsamicum*, used at the Hospital, to be worth no more than 9 d. *per* Pound, tho' he was forc'd to acknowledge it cou'd not be compounded for three times the value, at the Prime cost, allowing nothing for Servants-Wages, and the like? As a Gentleman stated a parallel case

case to him very *a propos*, by asking a Scrivener there present, what he wou'd draw a Pair of Indentures for? He answer'd, not under a Guinea; Why, says the Gentleman, How do you reckon, Sir? Two Sheets of Parchment are not worth above Half a Crown, Pen and Ink but of little value; and how can you pretend to be so unreasonable? Sir, answers the Scrivener, do you reckon nothing for my Clark's Writing, and my Attendance? No, Sir, says the Gentleman, not if I deal with you as Dr. Pitt does by the Apothecaries; for, as long as Pen, Ink, and Paper are cheap, I know no reason why you shou'd ask Eleven-pence in a Shilling Profit, any more than the Apothecary? 'Tis true, Sir, answer'd he, if this be the case, and equal Justice be distributed to all, the Attornies and Scriveners will be in as bad a condition as the Apothecaries.

But to return to the Doctor, who is got from the Living to the Dead, and Mummie with all the dry'd, insipid, and loathsome parts of other Animals, justly falls under his Censure: For I am no more in love with the Dead, than the Doctor; and must confess, 'tis upon the Living my Thoughts are chiefly employ'd; and therefore, for continuance of that Life, I expect little from the Dead, but think they ought not only to be rejected as useless, but very dangerous and offensive

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to the Life and Motion of the Spirits. The Powder of Vipers or Troches, appears to me as a fallacious Medicine, not to be rely'd on in any Extraordinary case, whether Chronical or Acute ; yet this, at the same time, will not at all exclude the true use of the Viper, where the true genuine volatile Salts or Spirits are entirely preserv'd : For he that knows rightly how to use the Viper, has a Secret well worth his keeping ; and if the pure Essential Spirits of a Humane Skull cou'd by any means be preserv'd in the same state they are when they emit their fine volatile Effluvia, as they do when a Skull is saw'd fresh, they wou'd be esteem'd a noble Medicine. for Reviving and Animating the depress'd Spirits : For the Volatile Spirits we gain by Distillation, are no more like the true Essential Animal ones, than the pretended Essences in the Perfumers Shops is like the fine Flower gather'd fresh from the Garden.

It must be acknowledg'd with the Doctor, that it has been rather the gainful Industry of the Merchant that has introduc'd such variety of useless parts of Animals, as the Horns of the Elk, &c. into the Practice of Physick, than any real advantage that has been received from the use of 'em. It is a hard matter to judge how far Imagination will prevail, and whether there be any real Vertues in the Eagle-Stone, the Nephritick, and the like ;

like; but it is certain, from the Observation of many Persons both of Parts and Integrity, that those Amulets have succeeded, when all the most Probable and Judicious Methods have fail'd. I won't take upon me to explode this Practice, because the success against me will over ballance whatever Reasons can be urg'd to the contrary: Nor will I determine this alone to imagination, or can I think it resolvable by the Doctor's opposite case of the Treatment of *Children*, to whom you give many pieces of Gold and Silver, to induce them to take their Physick, which you withdraw and receive again, when they are recover'd and at ease.

In the next place we have a harangue in behalf of Providence, as we had before of Nature, applicable to the great concern they both take for the Preservation, Order, and Management of the sick, that as Nature, as he said before, made Instruments, and a great many necessary things for the use of Surgeons, Chymists, and the like; so Providence provides the sick with Medicines, by suggesting to him what is the most Specifick and proper to his present occasion and want; and further appoints him a Physician; (without doubt a Dispensary one, else he must not be of Providences providing,) this is pritty insinuating kind of cant, but has more violence in it then bidding a Man stand upon the high

Road, for then you know what he means by it; but here no Man can guess at the Doctor's meaning, without he be a Conjuror; he says, *The artifice and practice of rendring those of our own growth contemptible, of raising the values of those pretended to have lain hid, till fortunately discover'd this very moment; and the other arts of Robbery and Cheat, give defiance to her watchful and solicitous care of preserving (as she does all the other parts of the World) the Life of Man, who can only know and gratefully reflect on the provisions made to support him.* Since the Doctor has been so Religiously devoted to ascribe all things hitherto to Providence and Nature, I wonder he shou'd profane this very moments great discovery of things only pretended to have been hid, by ascribing the cause of it to Chance or Fortune; but since the discovery is not of any thing that was lost, or valuable, but only of something pretended to be hid; it is pardonable enough in one who is so zealously Solicitous, that the arts of Robbery and Cheat be exercis'd by none but those, who wou'd not defraud a Man for all the World, without being able to give a very good Reason for it.

So that now you are to expect a good, as well as short account of Diseases, and be convinc'd that Judgment, rather than Physick, will restore Health. I must confess, indeed, a good Judgment is an excellent director, and
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of vast importance in the Preservation, as well as Restoration of Health ; but it will be but of little use in the latter, if we be not provided at the same time with proper Medicines, and such as are specifically appropriated to expell the morbid matter, as well as assist Nature, who undoubtedly takes true pains to throw off whatever offends her in the performance of her usual Functions ; but still she must be animated with a fresh supply of more force, to enable her to vanquish the Disease. 'Tis true, if, as the Doctor sometimes supposes, Nature be loaded, either with too much Physick, or such as is improper to the Distemper, which Judgment is altogether concern'd to regulate, then had she better have been left to the freedom of her own Laws, than fetter'd up by Medicines which she finds harder to shake off than the Disease. In such a case, when the Physician is so puzzled he knows not what to advise with any reasonable assurance ; it is certainly better, with Doctor *Pitt*, to let Nature do her own work, and let the Physician be appointed his Reward for assuring the Patient he was oblig'd to Nature for the Recovery of his Health, and that himself was only Natures Servant appointed to acquaint him how kind she was pleas'd to be to him. But to give an account from whence sickness proceeds, we ought to understand what Life is, which you have thus accurately describ'd.

Life consists in the Natural Disposition of the solid parts of the Animal Body; of the Active Parts which move it, and the Fluids which move in it. I suppose this does not stand for a definition of Life in general, but in reference to Animal Life, which I imagine to consist in such certain determin'd Laws of Motion, specifically directed to such constant Ends and Purposes, as is limited by Nature, in the disposition of the Parts, whether solid or fluid: But the accounting for Life, by saying it is Motion so and so determin'd, gives me no better or perfecter Idea than I had of it before. And to say that Death is the loss and cessation of that Motion, is no other than to say, Death is not Life, which every body knows. But how few know what Life is, we may judge by those few that truly know how to Live: For Motion, how Philosophically soever describ'd and display'd, with all the nicety of the Schoolmen, appears to me to be nothing but the bare effects of Life: For Motion, *Quatenus* Motion as continu'd, moves in one constant strait Line, and wou'd never alter that course, was it not diverted by some more cogent Power. Now, Life is that superintendent Director that determines Motion to such ends and purposes as are prescrib'd by the great Law of Nature, which is the Hand of God.

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As Motion then is the effect of Life, a regular continuation of that Motion, is the surest method to preserve Life, by such a good disposition of the Parts, which we call Health; enquiring into which, the nature and quality of that fluid we call Blood, as well as its motion, ought to be examin'd and understood. For tho' certain it is, that the Mass of Blood is not longer to be kept mixt together, than while 'tis in heat and motion; yet I can find no necessity of a circular motion in the Body to maintain its fluidity and the union of its Parts; since a digestive Heat will keep it in its natutal fluidity and contexture of Parts a month together, after it is separated from the Body.

If we enquire strictly then into the first Original of Blood itself, we shall find it in its Infancy to be pellucid, not to have any thing of Redness in it; that red colour being the effect of a progress of Digestion, by the addition of actual Heat, which is maintain'd and encreas'd by the reception of Air; which (as the Doctor rightly observes) is dismiss'd, and passes through the Pores by Perspiration: And we may observe how Heat is continued in Incubation in Oviparous, or the heat of the Womb in Viviparous Animals. So the Cicatrix of the Egg, which by actual heat of the Hen becomes in a short time of a red colour;

lour; nay, the heat of the Horse or Pigeons-
dung, will soon produce that variation of
colour: But it is not the grumous and red
part of the Blood, but the pellucid and ferous
only which becomes Nutritious; for the gru-
mous when separated, cannot be computed
at above a fifth part of the whole Mass; so
that if the solid parts were only to receive
their Nourishment and Encrease from that,
all the other must be reckon'd Excrementiti-
ous: But observation, and the tryals made
on that Fluid, will inform us, that the gru-
mous parts of the Blood, by reason of its fi-
brous and adglutinating parts, is less quali-
fied for the Nutrition of the Solids of the
Body, and for the separation which is per-
form'd in the Glands, but rather fitted to
continue and maintain Heat and Motion
in the Vessels; whilst the Serum, consisting
of watery parts, tho' it abounds equal-
ly replenish'd with Spirits and volatile Salts,
in proportion to its quantity, becomes
a more proper Nutricious Juice than the gru-
mous part of the Blood can be admitted, be-
cause that has a third part more of fix'd Salt
and crassament of Earth, than the Serum has;
and it is from this Fluid we must account for
the vast quantity of Matter which is daily
thrown off by insensible Perpiration, as
Sanct. Sanctorius judiciously observes in his
Medical Static. (says he) *Perspiratio insensibilis*
sola solet esse longe plenior quam omnes simul U-
nita.

nita. And again, *Spatio Unius noctis sexdecim Uncia per occultam evacuari & plurimum solent.*

Vir sanus occulte diei cursu tantum exhalat quantum per Alvum dividio Mensis licet quotidie coctas tamen & consistentes faeces semel excervat.

And we have not only this great Man's word for it, but this is generally confirm'd by the observation of the Modern Practitioners, who begin to find the great use of promoting or obstrusting Perspiration in the cure of many Diseases, of which we have an accurate Dissertation of the Learned Dr. Coles; and tho' there may be as yet many different Opinions, *de modo & peragendatione*, yet as many as will give themselves liberty to reflect and consider the reasonableness of the Doctrine of Perspiration, will no doubt soon be brought to acknowledge the many uses and advantages that Enquiry may be of, to the Practice of Physick, and to the more certain Knowledge and easier Cure of Diseases; since common observation will convince so many of the reasonableness of such a Perspiration, as *Sanctorius* asserts; when we shall consider the innumerable Apertures of the Glands distributed through the whole contexture of the Skin, by which that fluid we call Serum, is constantly Exhaling, by means of the rarefaction

faction proceeding from the natural Heat of the Body, which dispos'd it to such a motion; for we must acknowledge that subtle Vapour which insensibly passes away, is produced from an universal Heat of the parts, which attenuates the more viscous Particles of the Fluid to such a fineness, as to be able to pass under the form of the most subtle Effluvia, which easily pervade the minutest Vesicles of the cuticular Glands, and is perform'd from that power in Nature, which is nothing else but Heat itself, which the motion of the parts, whether internal or external excites, and diffuses from the centre or vital Flame, to the circumference.

For this Flamma or actual Heat within us, is maintain'd and continu'd by the constant addition of Nitro-aerious Particles which we daily inspire, and which is the Author and Engineer, the peculiar Intendant of the Functions ascrib'd to the Animal Oeconomy; This is that which buoys up and supports this curious Fabrick, and which still sustains and preserves his Being. This is the Fountain and Original of Life; yea, even Life itself. And we cannot but observe, that Perspiration is the peculiar effect and necessary consequent of Inspiration: Nay, by this way of Perspiration is shown the most eminent Specimen of the Creator's Wisdom; if we contemplate it aright, we shall find nothing more Beautiful, nothing more Admirable.

By

By this method, there is no need of Sphincter Muscles, or any Compression of the Parts, no Vibration or Constriction, no need of an Impulsive or Expulsive Faculty, or any occasion for transverse Fibres; the fix'd and less watery Humours being attenuated or divided into finer Parts by the rarefaction that the subtle Particles of the Air procures in the grosser Fluid, by the intromission of those new Bodies which raises and supports the Flamma, which soon exhales the watery Element upon the Wings of Heat's peculiar levity, whereby it finds the readiest passage for its exit.

There are such almost infinite Canals, Vesicles, and Pores, in the frame and composition of Animals, that they cannot be conceiv'd, much less are they to be discover'd to the naked Eye. Who can number the Hairs of his Head, every one of which has a distinct Nerve or Fibre? And many more there are lodg'd in their interstices; nor is there any doubt, but the same reason will hold throughout the Body. So Nature appears at first sight like a Prodigy; where-ever you look, you may see Canals, Strings, or Fibres; not the minutest part of the Body, whether external or internal, is without them; nay, the whole Structure is nothing else but a Congeries of Pipes tied together by proper bands of union.

Since

Since I have enter'd into this Subject, of enquiring into that Fluid call'd Blood, and from thence occasionally to touch upon Perspiration, I shall beg leave to continue on the Digression, (I hope not unusefully) since I have affirm'd the Serum to be the common nutritious Juice of the Body, I must proceed with the separation of the Serum from the Blood, which is perform'd by Percolation through the Glands, which changeth its Redness, tho' not its Nature. For Dr. Needham affirms the Spermatick Parts are nourish'd by the Serum; and it is not improbable to suppose, that the formation of the *Fetus* is compleat before any redness appear; and there are many Animals that have no redness at all in the Blood, therefore call'd *Exanguious*, they being of a colder Temperament.

There are certainly two distinct Excretions in the Liver; the one is by the *Poribilarii*, the other by the *Lympheducts*, which are here very numerous, and of whose use I shall have occasion, in a little time, to give the World a larger Account. In the mean time, I shall observe to you, that these *Lympheducts* in the Liver, insculcate the extremities of their Trunks with the *Poribilarii*, which cannot be said of any two distinct sort of Vessels that carry distinct Liquors in them throughout the whole Body again. From hence

hence I might attempt some Account of the secretion of that Liquor we call Urine, and of its nearer and more ready passage to the Bladder. But let this hint suffice till I have time and opportunity to bring that discovery to light.

The parts of the Serum, are Products of the Nourishment eaten, and the Materials out of which all the parts of the Body, as well Nutritive as Excrementitious, are made. As first, The Saliva is but part of the Serum separated by the Salivatory Glands, as the Liquor of the Ventricle is deriv'd from the glandulous Coats thereof: This being but a rude mixture of alimentary and excrementitious Parts, wants a farther separation, which is done by more Serum still thrown on the alimentary Mass in the Guts, both by the great Channel of the Pancreatick-duct, and the lesser Ouzings of all the spongy Glandules of the Guts and Mesentary, which promotes the former separation by the addition of the Bile, which being mix'd with this Mass, attenuates all the Juices in the *Duodenum*; and after all this, the Serum is again Cohobated (if I may so term it) upon the alimentary Mixture in *Receptaculo Chyli*, and so passeth with it, being squeez'd up the *Thorax*, till it become united to the Blood; tho' there is not any momentary mutation made of it, either in the Heart, Lungs, or elsewhere, but by

by the agitation of its Parts admitting the Spirits to pass and repass through it, till 'tis gradually work'd up into the nature of Blood and Serum, which Fluid makes Perspiration of such absolute necessity for maintaining the Animal Life, in such a state as we observe it; nay, and that of Plants too, in which it appears to be as useful, as it is in the nutrition of Animals.

For it is wonderful to observe what assiduous Perspiration there is always in Vegetables; nay, what a profuse Distillation thro' all their Pores; indeed, so great sometimes, that many Trees have run like Fountains, as the Pine, and the Fir, which contain in them much viscous Juice, and withal, cast off great quantities of Water, because that viscous Juice which is the proper aliment of those Trees, cannot permeate the closer Pores, unless diluted with a sufficient quantity of Water, so that it may be reduced into finer Particles, which requires immense quantities of Water to perform, and consequently, a powerful Evacuation; but it is certain, that not an hundred part of the Water which is applied to the Roots or Seeds of Plants, and which they imbibe by the protrusion and expansive force of the Air, is converted into the Growth and Nutrition of the Plant, but it transpires and is exhal'd in its motion thro' the Succiferous Vessels into which it is conveyed.

vey'd. And here by the by it will not be out of the way to observe, how far the expansive Particles of the Air may contribute to the Nutrition and Augmentation of Plants, and the introducing their Nutritious Juices: For those long and obtuse Particles of matter, which penetrate and constitute all dense and compact Bodies, gain admittance into Plants, by dilating their Vessels, as the Nutritious juices pervade their Pores, tho' that Nutritious juice is not meer elementary Water, but a certain viscous matter, which lies undiscover'd, and is convey'd in that Vehicle: For the Viscous juice it self is not so adapted to penetrate the closer Pores, till it be first attenuated and divided into subtiler and finer parts, and so made more fluid, that together with the Water, it may more readily and with the greater facility be convey'd thro' the Minuteſt Tubula of Vegetables.

It will then follow, if we rightly consider the motions of the Fluid in Vegetables analogous to that of Animals; that Air is a very considerable ingredient, and the efficient cause of the motion of the ſeveral Fluids of the Animal Body; for when a Rarefaction is made by the attrition of the Solids, the Subtiler Particles of that body being long and obtuse eaſily inſinuate themſelves into the cloſer and compacter parts of the Body; after which will follow the Globulous Particles of
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the Fluid, from the distention that was made for them by the foregoing Particles of Air, which expand themselves as they are put into quicker motion.

Since therefore we have occasionally run our selves into the Argument of Insensible Perspiration, it will be necessary to consider how far those Six things we call *Non-Naturals*, do affect us. And therefore Physicians, that wisely follow the directions of Nature, ought to show themselves wonderfully Solicitous about the uses of Perspiration, when they consult the Cure of Diseases.

The first of those things call'd *Non-Natural*, is Air, of whose use and efficacy, either in the Preservation of Health, or Cure of Diseases, I suppose few are ignorant: But that it chiefly affects us, when it either assists, or hinders Perspiration by its admission or retromission, for tho' it enter by Respiration, this only appears to be a Species of Perspiration ordain'd by Nature for throwing off the fuliginous Vapours of the Heart and Vital Parts. Nay, it is by the Inspiration of this Air that the motion is continued or detain'd; because, affecting the Parts thro' which it passeth, it either opens or constipes the Pores, according to the quality it was in when receiv'd. Therefore Temperate Air is thought the most Salubrious, for the hotter it

it is, it hinders the Perspiration by dissipating our heat: But if colder, it obstructs the exit or passage of the Vapour by Constipation. The humid and watry Air gluts up and fills the Spiracles of the Skin, from whence *Hippocrates* says, *Ex anni tempestatibus in Universum Siccitates assiduis Imbribus esse Salubriores*. From hence the use and necessity of Garments was order'd by all Civiliz'd Nations, to the end that preserving the Body from the too immediate influence of the extremities of the Air, a liberal Perspiration might be maintain'd. But since it was necessary that the Head and Face shou'd be more expos'd to the external Air, Nature has fenced the Brain on all sides with hard Bones, as a constant Cloathing; that by its futures and numberless Foramina, which scarce any injury of the Air can interrupt, there might be free admittance for the cloudy Vapours of the Brain to pass away by. And when we lie down, we put off our Cloaths, because the Body perspires better when cover'd in Bed, as those experiment who lie down bound in their Cloaths, for the next day they are us'd to complain of a weight and weariness of their Limbs: And to the same end we use external Fires, that they may contribute to the continuation and promoting of Perspiration, and the opening the Pores of the Body.

The second *Non-Natural*, is Meat and Drink, the whole necessity of which depends on Perspiration; for if nothing was convey'd and dispers'd by the Pores, there wou'd be no need of Aliment, which certainly was instituted for that end and purpose, that it might perpetually supply matter for Perspiration; and therefore the quantity of Aliment is to be measur'd by the quantity of Perspiration, and that ought to be judg'd the exactest measure of what we ought to Eat, by what was wasted; from whence we shou'd examine how great the Evaporation was, and in like manner Eat proportionably; so that the exhaling Parts, by the like continuation, may draw Food from the Stomach, and be reciprocally supply'd to continue the Flame with alimentary Fuel. Again, the chiefest reason of the goodness of Food, ought to be consider'd as it is assisting and conducing to Perspiration; for that we have establish'd to be wholesome which is easie of Digestion, and becomes soon dissolv'd; on the contrary, we affirm whatever contends with our natural Constitution, and is difficult of digestion, to be hurtful and noxious; else, what do Physicians mean, when they commend some Meats for being light and easie of Digestion, and condemn others that yields heavy and gross Nutrient? but because those that are light are readily digested and reduced into subtiler parts,

parts, by heat; but the others, since they are gross and heavy, contend with the natural digestion, and cannot be remov'd, without Exercise, and great Labour; and therefore such like Food becomes proper Aliment for Plough-men and Mechanicks, the heat of whose Stomachs is much greater by their daily Labour; for otherwise, such Food affords a Juice too inspissate to be reduc'd into finer parts, fit for Nutrition; and therefore, leaves behind it much more Excrement. For example, Bread and such like as are esteem'd fermentative, are reckon'd the best Food, because by the help of their ferments, the other Eatables are reduc'd into subtiler and more spirituous part, and so being render'd fine and light, they are easily rais'd into Vapour, and perspire: And therefore we join Bread to be eat with other Victuals as a laudable custom, and of the more use the newer it be after it is cold from the Bake-house; for it loses its ferment by its age; and therefore while new is the properer to be eaten with the Flesh of Animals, as it is likewise with all Plants, which stop the ferment of the Stomach if not assisted by the use of Bread. And this is well observ'd by other Nations who feed much upon Plants, that you shall rarely see a Foreigner eat any kind of Fruit without Bread. So that the good use of that which is amongst us, is wholly owing to their example, as likewise the improvement in our

Bread ; the eating of which new, together with the drinking Ale and Beer in the same state, e're the Ferment be lost, I take to be the chief reason of the Healthfulness of the People of *London*, in respect to other great and populous Cities in the World ; and if any will give himself leisure to observe, he will find this Place seldomer incident to any kind of Epidemical Sicknes, than any Village in the Country, in comparison to the Number of its Inhabitants. For it is old Beer that stimulates the Fibres of the Guts and Stomach, hinders and allays the genuine ferment of the Stomach, precipitates the Digestion, and frets off too much of the Mucous that adheres to the inward Coats of the Guts ; and from thence causes Fluxes, Gripes, and Convulsions, often fatal to Children whose Nurses delight in such Liquors.

The third *Non-Natural*, is Sleep and Waking ; for we relieve the Body by Sleep, not only because the animal Faculty is at Rest, but because the Heat drawing back and retiring to the internal parts, better digests, attenuates, resolves and disperses the subtle Fluid through the Skin, *Unde viscerum depuratio & alacritas emergit* : In the time of waking the Spirits transmitted to the circumference of the Body, powerfully dissipate the excrementitious Humours from the external parts, from whence comes that necessary

fary Vicissitude of Sleeping and Waking ; to wit, that by one the Internal, by the other the External Parts might be exonerated from their deprav'd Juices ; which thing, if it shou'd blindly happen, wou'd bring no small inconveniency to the Body.

The fourth *Non-Natural*, is Motion and Rest ; the advantage of which are chiefly as they contribute towards the furthering of Perspiration : For the Body dull'd with too much Rest, soon complains of a weight and laziness of its Members, by reason of the little agitation of the Spirits, and consequently there happens a less dissipation of the Humours ; which then, for want of being discharg'd, press upon the tendinous Fibres of the Muscles, which produces that Pain and Weight which we complain of, by sitting or resting so long without motion : But Exercise stirs up the Heat of the Parts, and by force (as it were) procures a resolution and discussion of those excrementitious Humours which before loaded and griev'd the Parts : Yet if Motion be too vehement and immoderate, it makes too great a resolution of those good Juices design'd for the Nutrition of the Parts, which must languish upon a violent expence, and wait till Rest repair them to their pristine state of vigour.

The things excluded and retain'd, constitute or make the fifth Class of *Non-Naturals*, not without less regard to the advantage of Perspiration : For the several Ferments have respect to that Evaporation, as their ultimate design; and the Chyle is so elaborated and wrought up by those alterations it has received, that it may become intimately united and homogeneous with the Blood ; the only scope and intention of those ferments being to render it a proper Vehicle for Nutrition of every distinct part : So that the Separations of excrementitious and immiscible parts, are made in all the several Fermentations and Digestions where the Perspiration is facilitated by subliming the grumous and balsamick parts of the Blood into volatile Spirits, which are discharg'd by evaporation. For if the impure Blood be brought to the parts, it must follow that the Perspiration is contaminated in a great measure; and therefore whatever is excluded by other passages at such time serving the intention of purifying the Blood or Chyle also, conduce effectually to the relief and assistance of Perspiration. Therefore the exclusion of the Excrements by Purging are thought so useful, because they give a greater liberty and freedom for a farther discharge and separation of the Fluid by the Secretary-ducts of the Glands, by rendring the Vessels less turgid and distended, and so
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of consequence allowing the Humours a free egress to exhale: But this method of Perspiration is reduc'd to the government of the things excluded and retained, not that it can be contain'd in such strait passages, for indeed, it is deny'd through all its Species; but because this it has in common with other Evacuations which depend upon the expelling of the Excrements.

Lastly, The Passions of the Mind bring up the Rear of this Troop of *Non-Naturals*, and they are of no small force in the command and government of the Body, whilst they are capable of promoting or retarding Perspiration, by the various commotions they occasion in the Spirits: So Joy recreates and refreshes us, because the Spirits moving more briskly, excites a greater Heat through all the Members, by expanding of its Particles, which diffuse themselves immediately through the whole frame of the Body: But Sadness just produces the contrary.

In a word, if we consider the Rules generally describ'd as well to the Healthful as the Sick, about the use of these Six things describ'd, we shall find the chief intention of 'em directed towards the promoting Perspiration. And *Sanctorius* seems to aim at little else in that Writing of his, confirm'd by undoubted tryals: But if the Reader be further curious

on this Subject, I desire he wou'd consult that late accurate Dissertation of Dr. Coles, *De Perspirationis in sensibilis Materia & Peragenda ratione.*

That Ingenious Author has assign'd the matter of Perspiration to arise immediately from these three following Heads, a Nutritious Juice, Blood, and the solid Parts; but excludes the Chyle from being understood thereby; as likewise the Lympha for almost the very same reason, he does arrest from that imputation, altho' it be fecern'd in the habit of the parts; because by proper Vessels it is carry'd directly (as he said of Chyle) either into the Blood, or deposited into certain cavities within; from whence it can by no means be admitted for the immediate matter of Perspiration, unless by chance something through the relaxation of the Vessels out of the usual course shou'd issue forth: Therefore, that he may enquire into this triple Source, altho' the weight of the whole he seems to lay upon the Nutritious Juice, yet sometimes the Blood and the solid parts must bear their share.

In the first place, he affirms of that which pertains to the Blood, (that he may from thence proceed) that there are certain stoppages or want of passage from the respective Receptacles, (beside the matter secreted in the

the Glands by a peculiar Art of Nature, which he assigns to be sweat) by which they gain admittance through the Skin; and as he allows, constitutes, and makes up a part of the Perspirable matter; because when the Arteries and Veins which are distributed throughout the whole surface of the Body, and not only in the internal parts, but every where in the minutest extremities of the Arteries when they lay open their passages; it cannot be deny'd but something in the form of Vapour, from the motion and agitation of the Blood, as well from its heat and fermentation, by that means distending those apertures, may pervade the Cutaneous Spiracles; and more from hence, that many of its Particles are much less than the Pores of those Vessels (which must be granted). Hence, what shou'd hinder the less from breaking out? But by this a very small quantity is pass'd in a considerable time; but more abundantly in the greater Perspirations celebrated by *Sanctorius*: For at those times there is a greater Relaxation; and (as the Doctor says) flowing out from the Superficies of the Nutritious Juice from all the Cutaneous Vessels, and the hidden Fibres of the yet undiscover'd Secretions. Yet it is necessary a greater share of these minute Vessels be allow'd to maintain and continue the Circulation, that the Blood may find an open and free passage, and be propell'd into 'em by a quicker

quicker motion. In the mean time the grosser (which make up a greater portion, and not less of Recrement, than that which truly constitutes the Blood) as it is obvious they are wont to be fecern'd from those Secretories plac'd in the middle of the Vessels; because as all acknowledge, these Organs that are supplied with the Excretory Ducts, are more properly adapted for the duty of Secretion, as in example of the rest, which are more deeply treasur'd in the Body, which convey such peculiar Liquors as are destin'd for their Cavities to receive, as *Bile, Saliva, Urine, &c.*

2dly, The solid parts, (which truly form the Body, to which the appellation of the parts from the fluid Substances less properly appertain) as they owe their Originals: so in the same place where they lose their charge at length they are releas'd from their bands of Union: These if they be altogether pult up from their Vesicles, as it appears highly probable from the continual flux of Juice running through these Channels, must necessarily pass away incessantly from the damage that otherwise wou'd ensue from the Constitution of their Particles.

Indeed, these are continually nourish'd from the included Liquor creeping within; so in like manner, they ought to cast out those

those settled Particles which grow stubborn by long continuance: And by what easier way, than by Perspiration, (and that by proper Channels) can those Particles be scatter'd and dispers'd which are brought to the Skin, since this is the last stage of the Body? If it be Objected (says he) That there are many more of those Fibres which run in a direct passage, and tend not to the Skin, but terminate in the inward parts: He supposes these either into the Veins or other Cavities appointed for that use, deposite their Superficies; but when those Substances so take upon them another denomination, because now passing into a store of Liquors with which they are intermix'd, by which means it happens as if they were cast off by Transpiration; when from hence they serve for further uses in the Body, or come to be exterminated by some other artifice. This is what he contends for, That those little Fibres of the Solids which pertain to the Skin, constitutes and makes up part of the Perspirable Matter, altho', perhaps, as yet scarce sufficient, since the Resolution is very gentle and slow.

Granting this as to some part of this Matter it appears to him very probable, he continues, that

In the third place, the Nutritious Juice running through the Fibres, supplies by far the
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the greatest part of this Matter for Perspiration. And the Doctor wou'd have this Nutritious Juice to arise from the Nerves. But let it be from what cause soever, or by what artifice it is perform'd, he positively assigns it as the chiefest material of Perspiration, and endeavours to confirm it by several Arguments, which I can by no means take liberty to trace at this time; and therefore shall only beg leave to offer two or three short Experiments, which I will leave the World to judge of what weight they be thought in relation to this Hypothesis of the Doctor's.

Whatever has been affirm'd and said concerning the *Succus Nutritius* of the Nerves, and the plausible Arguments that have been brought for the Animal Spirits and their Flux, by the nervous Fibres, I think will appear of little validity to such as will consider the following tryals made to prove their Existence if they had had any.

I must confess, after all the diligent search and enquiry I was capable of making, assisted by the helps and several Inventions of others, I was never yet able to find any footsteps whereon to build a foundation for the belief of Animal Spirits; and after I had exploded the necessity or use of 'em in accounting for the Circulation of the Blood, without which I doubt

doubt some hasty Circulators wou'd be at a loss to resolve several difficult Phænomena which that System affords, and without which some imagine no Diseases can be accounted for; but if the motion of the Blood cannot be accounted for or understood without such a *Modus in Circulum*, as is contended for, and by the help and assistance of Animal Spirit; I doubt there will be a Stagnation in spite of all the endeavours of a circular or progressive Motion to the contrary. But since there is a true efficient and more powerful Cause to answer all the Intentions that they wou'd have a Circulation do against the Laws of Nature, and those Mathematical Causes by which we measure her in her regular and irregular Motions; I hope the World will pardon me if I still maintain, That Life and Motion can be continu'd without being oblig'd to a long Digression, to explain my self in every Particular; since Dr. *Pitt* has taken the liberty to talk of the first Stage of the Circulation, without acquainting any body what he means by it. But not to detain you any longer upon this Head, I shall proceed to deliver to you the tryals communicated to me by that incomparable Anatomist, Dr. *Bidloo*, Professor at *Leiden*.

1st, Having often bound a live Dog with a strong Ligature, sometimes to the Groin of the Thigh, sometimes towards the Knees,
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the Nerves wou'd swell below, but never above the Ligature; but the Membranes of the little Arteries of the Nerves always appear'd tumid towards the binding.

2dly, Unloosing the Ligature after two or three hours time, the Nerve and sanguiferous Vessels were found restor'd to their pristine state and function.

3dly, The Nerves being cut cross-ways or slit, no Juice, tho' suppos'd as proper to this Organ, did remain in the Extremity, or cou'd be express'd thence by any force.

4thly, The same thing wou'd happen tho' wounded length-ways, breadth-ways, or transverse.

5thly, A Nerve wounded by a Needle-point, or struck by any Instrument, whereby a Crust wou'd adhere it, which taken away with an Eschar, no sign, prognostick, or foot-step did remain of any Liquor.

Leaving these Experiments to the Readers Reflection, I give him the liberty of applying them to what Conclusions he may most naturally deduce from them; and so shall attempt to lay down some general Institutions by which the Modern Practice of Physick, is, or ought to be govern'd. But before I enter

ter upon 'em, I will premise thus far, That if it is of ill consequence (before we enter upon the Practice of Physick) to tie up our selves to Principles of Philosophy: but it will be very necessary to enquire into and examine the *Cartesian* System, and compare it with the *Democritean* Philosophy, together with the help and assistance of Geometry, and of that part particularly which teaches us the regular Motions, and demonstrates to us what is most convenient from those Rules, and what is chiefly to be esteem'd and chosen in the Use and Administration of Physick; and therefore, such as wou'd attain to any certainty in the Medical Art, ought not so much to respect Philosophy, (that is, such as the Schools Teach) as Mathematical Knowledge.

All Diseases consist in the alteration of the motion of the several Fluids, whether swift or slow; or in a change of the quantity or texture of the parts: So Motion is a quality which when chang'd to such a degree, is called a *Cachochymy*; a change of quantity when by encrease, is call'd a *Plethora*. But it will be highly necessary, before we proceed in the Account of Diseases, to know what Health is.

I affirm, first of all, Physick to be an Art that endeavours to preserve Life to an undeter-

determinate continuance, which perform'd in an uninterrupted regular course, is that so much desired Good we call Health. But if a Disease is an endeavour after Dying, and the extremity of a Disease, Death itself, Life would be indefinitely long without a Disease.

But since the Writers of Institutions hitherto have not clearly deliver'd to us what Health is, to say Physick is an Art as far as it is able to preserve our present Health and restore what is lost, is but an ill definition of it: For *Sennertus* and others tells us, Health is join'd with a power of exercising those Actions, which, according to Nature, we were able to perform; but since they never inform'd us what the nature of Life was, how cou'd it be understood what Health shou'd be? But Health is a delectable state of Life, void of Pain: nor can I think it consistent with material Reason, to believe what some inform us of, *viz.* Life Eternal, amidst what destroys the very nature of Life, that is, Pain. Some have affirm'd in their Institutions, That the subjects of Health were the living parts of the Body; which is otherwise, since it is not a part of the Body, but the whole Body itself which Lives; because Life is the Author of the Motion of the whole. And therefore they are much in the wrong, who divide the Body into similar or dissimilar

dissimilar Parts ; for such a division is both unnecessary and contradictory : For from hence, by a dissimilar part , ought to be understood a Part fabricated of other Parts, not homogeneous to the rest. And so they confound the Organic Parts, which they define to be that which performs a perfect Action ; and so every Part performs a perfect Action ; for every Fibre and Muscle after the same manner contracts itself. But this I say, That every entire and perfect Action which is attributed to an Organic Part, is compos'd of many similar Actions of the Parts ; therefore the Parts may more truly and usefully be divided into containing and contained Parts ; that is, Canals and Liquors.

Since then we are compos'd of Canals of divers kinds, carrying various sorts of Liquors in them ; these Canals are of certain and determinate Fibres, of such a Number, compos'd of such Tunics, have such Compactness, Elasticity and Figure, and have other Properties ; and of divers Proportions, from whence they receive different Names ; as Arteries, Veins, Nerves, Fibres, Vesicles, Lympheducts, Bones , and Liquors of the like determinations, whose Parts have such a degree of Fluidity, that they can easily be turn'd about, and with small force, mutually move and be removed by one another.

The Canals and Liquors of all Men have the same common Properties ; but if, for example, the Blood of all Men were compounded of equal Parts, equally smooth, &c. then all Men would be of the same Temperament, and all equally alike Healthful. (We may suppose 'em similar as to the Vessels, but not as to the Liquors contain'd in them.) Hence it is, one is more adapted to this kind of Action, this to another, one more dispos'd to this kind of Disease, another to another sort ; and these Properties are called *Temperaments*.

Thus it follows, that all Men who are govern'd by any of these Temperaments, from thence may date their cause of Sickness, or their defection from Health, which we may not improperly call, The Birth of a Disease. Thus the ancient Physicians assign'd four Temperaments, which few are ignorant of, but they understood not the various motions of the Fluids, and the several secretions that are made from thence, by which we can better account for the disorders in the Animal Oeconomy, when we shall consider the Motions of the Fluid, whether Circular or Intestine.

The radical Heat and Motion of the Parts, I take to be maintain'd and continu'd by the
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attrition of the Particles of the Blood, which is produc'd from the first Spring of Vital Air inspir'd *ab origine*, and propagated by the assistance of the Lungs, which never cease to supply the Fluid with that *Pabulum* which is immediately convey'd into the Arteries, where it continually divides the Particles of Blood, expands itself, and so raises that motion which propels the Blood with such an impetus as has been vainly assign'd to an impulsive Faculty in the Heart; for by the great resistance of the *Pondus* of the unactive Fluid, the Elastic Spring of the Air forces it in a progressive motion, being continually driven forwards into the Arteries by the Inspiration of the Lungs, and Compression of the Diaphragm.

To explain this, we must consider that the solid Parts are fabricated from that by which they are afterwards nourish'd and receive their augmentation; for since Nutrition and Encrease is the apposition of the Parts, it ought to consist of such like Matter as is sufficient for the growing Parts, and their Encrease, and which may afford a rise for Parts to Spring from them; and so the Blood that is the Liquor contain'd in the Veins and Arteries, suffices for an encrease to the Parts; and therefore gives rise to those, and from that the common Properties to the Blood and solid Parts, amongst which,

Heat is to be reckon'd : Therefore the solid Parts receive Heat from the Fluids ; I say Heat from the Fluids, which constantly supply them with Heat and Motion.

For the Homogeneous Blood that excites Heat, by Expansion, and the endeavouring to set itself at liberty, is agitated by nothing else than the Attrition of the Parts produc'd by the Impetus of the Air's Elasticity, which is proportionable to the velocity of its emission into the Blood, and the reaction or resistance of the Arteries and the antecedent Blood which follows ; if that resistance be not alter'd by the change of its force and the velocity impress'd from the Heart, the Effects will be proportionable to the Heat, and that Heat to the motion of the Blood.

From hence, after the same manner, is explain'd, that if that swiftness of motion impress'd from the Heart (by means of Air sent thither from the Lungs) be equal, no change can happen from the heat of the Blood, but from the different resistance and reaction of the Arteries and the preceding Blood. But the resistance and weight of the preceding Blood is proportionable to its own weight, and that is proportion'd according to its nearness to the Heart ; for by how much it is nearer to the Heart, by so much the weight of the Blood is greater that is contain'd betwixt

twixt the place receiving and the extremity of the Artery; and the resistance of the Artery is also much the greater, by how much nearer its approach is to the Heart; since the resistance in this case is agreeable to the quickness and swiftness of the motion; and that quickness so much the greater, by as much as it is nearer to the Heart.

But it will be worth while to examine the Opinion of some of the Moderns, who will needs have innate Heat to be an effect of the fermentation of the Blood, brought in by the subtil Matter, and preserv'd by its perpetual Action: So many Eminent Men assign the cause of heat in the Blood, to the action of the subtil Matter, since they find not in the Blood any right-lin'd Pores answering to that motion propagated by even Lines variously exagitated, and endeavouring to unite the parts of the Blood, and the intestine motion quickned up in that which differs little from heat.

'Tis evident, those Philosophers suppose the subtil Matter to be reflected from the parts of the Blood; for the strait-lin'd or rectilinear Pores, if not to be found in the Blood, ought at least to be distinguish'd in the meeting of the parts of the Blood betwixt one extremity of a Pore and the other, (which may truly be call'd a Canal) which parts comprehend

hend Pores that are not sufficiently large. But if this be suppos'd the cause of Heat and Fermentation in the Blood, when extravasated into the Pelvis, and there confin'd; for example, That then the Spirits grow hot and ferment; it is quite otherwise; for Blood extravasated, is so far from being exagitated by the subtil Matter, or intestine Motion, that it entirely loses that suppos'd Heat and Fermentation.

For as Air confin'd in the Intervals of two Marbles adhering together, and closed on every side, is hindred in its Action, lest the adhering parts by turns shou'd separate; therefore, tho' we grant the subtil Matter Existence, yet those Parts united together will detain the Spirits in contiguity; and if it be admitted a continuance amongst the Pores from one side of the Partion of that Portion of Matter to the contrary side of that Portion, or at least to that Portion next contiguous to it. For that reason, that part will be held in *Equilibrium*, nor can it be mov'd in its place: From whence there is no Original cause for intestine Motion, or Heat, or Fermentation, to be expected from the subtil Matter.

If there was any gravity in this subtil Matter, that it cou'd cause a change or alteration in the Air; but since this subtil Matter admits

admits of no gravity, there is nothing to be hop'd from it, because it is not heavier in one place or time than in another, it compressing all Bodies with an equal force, in all times and in all places, and therefore cannot be the author or cause of any Change or Fermentation.

But if there be no such subtil Matter, as *Cartesius* fancy'd, as it is certain there is not, then there is no intestine Motion, or any Fermentation in the Blood, which is manifest from the nature of Fermentation, which is properly the reciprocal Action of an Alkali with an Acid. In every fermentative Liquor, there is a burning Spirit, but Blood affords not any burning Spirit, but what is only Urinous; from whence we may judge the Fermentation to be wanting in that Fluid. For in the tryals of Vegetable Juices, we find that before or with Fermentation, they afford nothing but Oil and Phlegm; but if the same Juices be fermented, they will allow us a burning Spirit, and but little if any Oil. Such is the *Ætherial* Spirit of Wine; for by the Fermentation, the acid and alkali-ous Particles mutually unite the Oil and Phlegm into one Body, which becomes a Spirit: Hence it is those Spirits become inflammable.

If you take a burning Vegetable Spirit highly rectify'd, and add to it a quantity of Water, let it stand a Month in an open Vessel, and you shall perceive the Oil swimming at the top, and separated from the Phlegm, but the Spirit perish'd, as you may discover by your Taste. This Truth is easily confirm'd; and that there is no Fermentation in the Blood, which is a mutual Action of Acid and Alkali; but where either of these is wanting, as the Acid is in humane Blood, a true Fermentation cannot arise; and that there is none in the Blood, will be manifest to those who will take the Pains to explore that Liquor.

I understand a Fluid to be that Body, whose Parts yield to every force that is brought in, and by yielding are easily mov'd amongst themselves. This definition agrees with that Hypothesis of *Archimides*, who assigns that to be the nature of the humid or fluid Body, that the parts of it lying equally to a lesser pressure, is expell'd by the greater. For this Hypothesis plainly asserts, that the parts less press'd, yield the greater pressure of the Fluid, that the lesser parts press'd are at rest in respect of the greater force that presses 'em, for the lesser motion has some rest in respect of the greater, the fluid parts resting, yield to every mover. From these things

things it follows, that if any Fluid be equally press'd on all sides, (speaking of a particular Fluid, since the human Body and all those Liquors contain'd in it, are on all sides equally press'd by the Air and other circumambient Fluids) then all the parts of it are equally press'd, and at rest, without any motion amongst themselves.

Supposing any Fluid in a Spherical Vessel uniformly and equally press'd in it from all sides, if any part of it begin to move, all the parts in like manner will do the same, and they will move in the same distance they were placed from the Center; because we may well suppose, that the Fluid, or all the Parts of it, were equally press'd, and the containing Vessel immovable; and where the equallity of all the Parts are in the same distance from the Center of the Sphere, they are mov'd either towards the Circumference, or kept in the same distance from the Center. They are mov'd into any Part, either East or West. But when we suppose the Fluid Homogeneous, all the parts of it are alike, equally heavy, or equally light, therefore have the same equal tendance, either to the Center, or the Circumference.

If the Fluid be not Homogeneous, all the ponderous Parts descend to that Center towards which they gravitate, the rest equally heavy,

heavy, keep the same distance from the Center as before, and are therefore at rest in themselves, as *Archimedes* demonstrates; and shews in the same Doctrine, that all the Parts of Water, for example (that we may speak of that Fluid, since the Property and Laws of all Fluids are universally the same) consisting and being equally in the same due Poize or Ballance; so that there is no properer Center for one part in the Earth than another, in the same Superficies of the Sphere laid by a Right-line to the Center, all are equal: And since it is the same in every Surface of the Water, it is certainly manifest, That no part of the Water (as it is uniformly fluid) can come nearer, or recede farther from the Center of the Earth; and therefore the parts of the Water are immovable in themselves.

From hence I infer, there is no intestine Motion of the Parts, and so no Fermentotion, according to that sense of Dr. *Willis*, who defin'd Fermentation to be *Motus Intestinus Particularium Corpus Componentium*; and there are others that after the same manner confound Fermentation with Intestine Motion.

Since I have already taken the liberty to wander beyond the design of this Tract, I shall

shall indulge my self a little farther to explain the Animal Oeconomy. And First,

The Meat chew'd by the Teeth and mixt with the Saliva, that it may the more easily be ground and yield to a farther impression, is made moist by thrusting into the Stomach; in which place, by the help of the perpetual motion perform'd by the Tunicle of the Stomach and the Muscles which assist in Respiration, in which the *Diaphragm* presses the Stomach too and again by turns, the parts of the Food, with the Saliva, and the serous Liquors of the Glands, are made soft, broken in pieces, wasted, and divided into lesser parts, till they become so small as is requisite for Fluidity: From these, together with the Liquors of the Glands, and the Drink receiv'd, are form'd what we call Chyle.

So that the parts of the aliment are not dissolv'd by any intestine ferment, and innate force of the Stomach, into essential parts, as they call 'em, and Elements, whether Chymical or others, by any seperation of any things of a different kind, first united, and the Union of other parts that were first seperated, as it is in every Fermentation. For Example, Wine, in which the Tartarous parts first united, are seperated; and the parts seperated of the Phlegm and Oyl are properly United, and compound a true Spirit by Concoction;

coction; as it is in the Stomach, the Eateables are broken into more intire parts, like those of the Blood, but those much less, in like manner as Coral ground on a Marble, with Water is broken and reduced into an impalpable Powder, whose parts are small Corals, and not the principles of Coral dissolv'd from its Union.

For proof of this, there appears to be no need of any other Argument than that in the Stomachs and Intestines of larger Fish, who devour and digest the less; the Chyle is nothing else but that Liquor swimming with the Fibrils of the flesh of the devour'd Fish, or the smaller part of Fibers which differ not from the larger but in size, as a Microscope will inform us.

Chyle so elaborated in the Stomach, is expell'd thence into the Guts by the alternate motions of the Stomach, from the help of the assisting Muscles, in whose first passage it is diluted with the Liquor of the Gall, and the pancreatick Serum; which Liquors produce no Effervescence, either from the Chyle, or mutually with each other, but placidly and quietly are intermix'd: But by the help of those Liquors a greater fluidity is given to the Chyle, from whence it happens that the parts of the Aliment are so dissolv'd by the motion of the Stomach; but in defect of a
sufficient

sufficient proportion of Liquid, there is not a sufficient division, and some parts lie hard upon others, but at length they obtain a larger space in the expanded Fluid, that they may the more easily move themselves and be moved, and the lesser be extricated from the greater; and since these greater parts or the less concocted, cannot, by reason of their magnitude, be squeez'd in great number into the Chyliferous Vessels, they are thrust thro' the length of the Guts and putrefy there.

Hence it follows there is a quicker and better digestion perform'd in the day time, and while we wake, then in the night when we sleep, because when we wake we oftner respire, and so exercise the *Diaphragm*, the Muscles of the Abdomen, and the whole Body more, and so oftner compress the Ventricle.

Likewise, while we gently walk, or use moderate Exercise, we more perfectly and sooner digest our Food, then by a Sedentary and an Unactive Life, when we seldomer move the Spirits and contract the Muscles. So in Winter we have a better digestion then in Summer, because the Sense of Cold compells us to exercise the Body with a quicker motion.

But that ferment of the Stomach which is either Saliva or the Serum, issuing from the Glands of the Stomach, contributes no farther to the digestion of the Food, then that they molify and render it easier for dissolution; neither do these Liquors flow into the Stomach to further the Concoction, but as the motion of the Teeth, Oesophagum, and Stomach, effect it, by expressing those Liquors that then flow to it. For it is evident those Liquors alone do not perform Digestion, because if you mix them in any place equally as hot or hotter then the Stomach with Flesh or Herbs, they will never turn it into Chyle, but remain unmov'd, that it is a wonder why a faculty of converting the Solid Food into a Chyliferous Liquor shou'd be ascrib'd to the Serum of the Blood, which is only excern'd from the Glands, when the Serum evidently is not the Menstruum for dissolving Bread, Flesh, or Herbs.

But all this business will be better understood by Mr. Boyle's digesting Machine, in which there is no need of Fermentation, but of heat, and the pressure of the Air rarefy'd, and not finding a passage out, dissolves Bones and Flesh, with the addition of a little Water, into a perfect gelly, which wants little of the Nature of Chyle.

We have affirm'd Chylication to be a Communication of the parts of Food, by the motion of the Stomach, and the adjacent parts; and by the same reason we may say Sanguification is perform'd by the mixture of the parts of Chyle, by the motion of the Blood, and the Arteries, and the Compression of the Lungs, by which it comes to pass, that the parts of Chyle, and the parts of the Blood, being equally small and equally smooth, they may easily slide one upon another, and so flow together, so that the Liquid may become Homogeneous in the canals, from whence, towards this Sanguification, we need not assign any Ferment in the Heart or other parts.

But all the parts of the Body are nourish'd from Blood, or that which is secreted from it, which is not the Red grumous part of the Blood, but the White and ferous, from which is fabricated the Bones and all the Solid parts, which receive their Nourishment and Encrease from that Fluid, which, after its separation, becomes Heterogeneous to the Blood. After the Chyle is mix'd with the Blood by the known ways agreed on, we shall proceed to explain the business of Respiration.

It is plain by many Tryals, that the Air is ponderous, and that the Air is a Fluid; therefore from the Nature of a Fluid, Air breaks into whatever place is more empty, or in which it finds a less pressure and resistance than that in which it suffer'd from the other parts of Air which prest upon it before; therefore at the first birth the Larynx will be fill'd with Air, from whence the gravity of the External Air is remov'd from the Internal, or it wou'd be of equal weight betwixt the External and the Internal Air; and then at first the Muscles dilating, the Breast cou'd not come to Action, before the Air had broke into the Cavity of the Breast, the External Surface of the Breast will be press'd with the weight of Air equal to the weight of Mercury, of Twenty four, or Twenty eight Foot high, having the same height with the Breast, the Muscles dilating the Breast cou'd not be pult up and so contract from that pressure; and therefore the Breast cou'd not be dilated, but removing that quantity of Air which made up an æquilibrium with the External, the least force wou'd raise up the Muscles, serving for Inspiration: But the Air cannot gain admittance into the Lungs, but by the *Aspera Arteria*, by whose Ramifications it ought to be dispers'd into all the lobes of the Lungs, and the bladders that form those lobes; since it

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is press'd by the weight of the Parts and the gravity of the Air that lies upon it, even to the utmost extremity of the empty Spaws of those Vesicles; and this Action or series of Actions, we call *Inspiration*.

As the Air is the cause of Respiration and Inspiration; so likewise is it, of the Dilatation and Contraction of the Arteries; for the Arteries being fill'd with Blood, the trusion of the Air with such a force from the Action of the Muscles in Respiration, propels the Blood forwards towards the extremities of the Arteries; and after that violent Dilatation, succeeds Contraction or a Systole; and from hence comes what we now call the Pulse. But because there are many differences of Pulses observ'd, from whence Diseases and their alterations are us'd to succeed; therefore I will give a short Explication of some more particular distinctions.

When an Artery is dilated beyond the usual bounds of its accustom'd dilatation, we call it a great or vehement Pulse; but if the dilatation of the Artery be not so large as usual, it is call'd a small or weak Pulse.

But if betwixt two dilatations it intercepts a longer time than it is wont to do, it is call'd a slow Pulse; but if the dilatation in-
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tercepts a short time, it is call'd a quick Pulse.

Lastly, If the Tunicle of the Artery from some cause or other be harder than usual, it is call'd a hard Pulse; but if by a contrary cause it be softer, then it is term'd a soft Pulse. Therefore it may be of use to know the difference of Pulses distinguishable by the touch, which are three; great and small, quick and slow, hard and soft; some others there are, but more insensible to the Finger. Some Dilatations may be so small that we cannot discern with all the assistance our Fingers can give us in the touching them: Hence an unequal and Intermittting Pulse may be only a Species of a quick and a slow Pulse.

Let us come to the Consideration of the Blood, not only in the naked Arteries, but as it is distributed into the Viscera and Glands, in which places, different Liquors are separated from it: In the *Liver, Pancreas, Cuticular Glands*, and others almost innumerable places, Discover'd and Explain'd by the Industry of *Anatomists*.

That portion of the Liquid contain'd in the Arteries, and which enters into the minutest Branches thereof, consists of two kinds: Part of it is more movable, and deserves to be

be call'd a Spirit ; but the other part is more viscous and adglutinated by heat, in respect of the active and volatile Parts, which procure a greater Fluidity ; and from hence the Brain is supplied with all those fine subtil Fluids which are distributed in plenty through all the minute Ramula of the Cerebrum ; and by the Elastic Spring, of which the Trunk of the Vessel is shak'd with a concussion more than usual, and so the Liquid falls and presses from the Trunk in a greater quantity into all its lesser Ramifications.

From that Liquid that flows in the Brain, we shall descend to that which flows into the Chamber-Pot, which we call Urine ; and which is separated from the more homogeneous Fluid of the Blood by the Strainer of the Kidneys, through which the saline Particles precipitating with themselves a portion of the Earthy Dregs pass away with the superfluous Stream of Water ; for the texture of the Blood being broken by the Configuration of those Heterogeneous Particles, they are separated and left behind in the Pelvis of the Kidneys, as unapt to continue the union of the flowing Mass, not being equally smooth and lubricous, or equally light or ponderous, to make an intimate mixture, and glide along with the remaining Fluid.

Upon all the Experiments to be made on Urine, it will be found to contain nothing but common Salt and Earth. For if you take a quantity of that Liquor and Evaporate off the humidity in a Sand-heat, till the Fæces be of the consistence of Honey; then throw on the residue as much fresh Elementary-water as was exhal'd; and this new addition, by the help of a small Digestion, shall become as perfect an Urinous Liquor as it was at first when emitted from the Bladder, and so it shall continue after several the like repetitions.

The use of the Testes, I think, is disputed by none; namely, That they elaborate the *Semen Virile*, but that they give the perfect form and figure to the succeeding *Embryo*, from a true and mature *Semen*, is not so well understood.

In the natural Mechanism of every Specific Generation, there is a particular direction and tendency in all the parts that compose that Machine to propagate its like.

Therefore, Man who is the perfect'st Being of the Animal Creation, and who was brought into the World replete with all the Materials necessary to propagate a perpetual Generation of Creatures like himself, must
needs

needs have the whole form and figure of his Species contain'd within himself, and therefore still existent in his Nature, and so of consequence must have proper Parts form'd for the actuating and bringing to Life such latent Embrio's, as afterwards receive their growth and encrease from proper Matrixes, from whence they are Nourish'd by the same kind of univocal Heat and Aliment as at first they were form'd. For we need not perplex our selves with the Learned *Harvy* and others, whether the Brain or Heart receiv'd the first formation, since all are equally formed together, tho' perhaps some Parts disproportionable to the rest may receive a great addition of growth in their Infancy, the whole Frame at first being in a state of Fluidity, some of the Parts become more conspicuous than others; which has deceiv'd many curious Enquirers hitherto. But the many Observations that are daily made, and which admit of farther tryals, will inform us, That there are many Parts in Infants that are very large in that state, and afterwards dwindle away to almost nothing; and many others which in Infants are not visible: But in Adults, appear of absolute necessity to the Body.

In our Observations upon the Testes of Adult Persons, we may consider the formation and constitution of the Parts, whose

curious Contexture seems to be design'd after a wonderful Mechanism for the Configuration of that Liquor call'd the *Semen Verile*, whose texture is entirely form'd and modell'd from the Testes: For in a *Gonorrhœa* you may observe, by the help of a Microscope, that the texture of the Parts are broken, the union resolv'd, and the nature of that Fluid absolutely destroy'd by the intromission of those heterogeneous Particles.

After all that has been said by the Ancients, and the blind assent that many of the Moderns give to their Authority, it will be something singular, and look'd upon as a bold assertion, to affirm, that Women are of a hotter Constitution than Men.

But this will not appear so strange, when we shall examine and find, that Women have abundantly more Blood, proportionable to their size, than Men have; tho' it must be acknowledg'd they are more humid, and Men more dry: So Infants have much more humid Serum in them, than young Persons; yet they are much hotter, as any one may be satisfy'd in that will please to make tryals either of the Blood or Urine of Children, and compare it with that of Adults, and they will soon confess this Truth, that Infants are hotter than young Persons, and they much hotter than such as are grown to a full Age: And

we

we must grant, that Women, as well as young Men, and Children, are more lax and soft; and that from their greater abundance of Lymphatick Juices, they sooner come to their full growth and maturity than Men.

The *Lunar*, or Monthly Courses of Women, demonstrate to us, that they have more Heat as well as more Blood than Men; for whether we assign the cause of that Evacuation to an Ebullition or Fermentation (which there is none) in the Blood, or from too great a quantity, which we call a Plethora; it will be equally reasonable to conclude, that Women have more Heat in them than Men; which is not maintain'd by preternatural disturbances in the Mass of Fluids, but by a constant regular course of Nature.

From hence I shall take occasion to define what a Disease is. A Disease is an uncertain irregular motion of the Fluids of the Body, both as to time and quantity; and that disorderly motion, without Complication, is that Disease, simply so call'd, a *Fever*; tho' it is difficult to distinguish all the several kinds of *Fevers*, they easily admit of this familiar division, into Intermittent, or Continual. The Intermittent, which finish their course in no determinate time, may be taken from one, two, or three Hours, to as many Days: The Continual, are always acute,

cute, tho' not always so deadly and dangerous, if their Crisis be well understood. I will here give you Dr. Pitt's Definition of a *Fever* at large, tho' I cannot reconcile it to my method of Reasoning upon the same Subject.

A Fever is a preternatural Ebullition or Fermentation of the Blood, occasion'd by Heterogeneous Particles insinuated into the Blood or Spirits, or both, either by Cold, which repelling the natural Transpiration, imprisons the vicious Salts, which Nature endeavouring to throw out, occasions that violent Commotion; or by an Excess in Eating such Meats that the Stomach cannot digest; and therefore the imperfect dissolutions entering the Blood, cause an extraordinary Ferment: Or otherwise, the infectious Particles of the Air being imbib'd by the Lungs into the Blood, produce an unnatural Ferment; and being propagated by Fermentation, cause the most violent and putrid Fevers.

A Fermentation propagated by a Fermentation, is an odd kind of an Explication; but I think what I have said before to explode all kind of Fermentations in the Blood, may be satisfactory enough to any Person that seeks for a Mechanical Account of Diseases, and are content with such Explications as that Philosophy can afford us.

I shall not endeavour any farther to invalidate the Doctor's Definition of Idea's, but desire he wou'd farther explain to us the causes of the deprivation of Health, and after another manner inform us than he does, when he says, *As the sudden changes of the Seasons and the Weather, great Labour, accidental Repletions, and the infections of the Air, will not be able to make any strong and violent Impressions on the Spirits and Blood, if by being before in perfect Health, they are able by their natural Strength to resist or expel their Enemies.*

What strange and wonderful things does he inform us of, That the Air will not overturn Houses that are strong enough to oppose its violence, or He Ruine the Apothecaries without he has Interest enough to effect it? If his Enemies have Strength to resist him, he declares he will not give 'em Battle. Now if this be not a fair explanation of Diseases, and their Causes, you must never trust to Dr. Pitt again, who promis'd he wou'd lay before you the manner by which Nature preserves Nature, or which is all one, *Preserves its natural state of Health, and from what Causes the Body becomes subject to various Changes of this state, and to be alter'd and endanger'd by Diseases.*

If the Doctor has no better a Talent at Curing Diseases, than explaining them, I hope he sets up for the Universal Medicine, which will never bring any Gain to the Apothecaries Shop, and then 'tis no matter whether he Cure the Patient or no, as long as he is not privately in the Interest of the Apothecary. Well, but what need the Doctor consult the Cure of any Disease, when he says, Nature in the strong and robust Bodies can do its own Work, and throw off any Disease? Yet in his Explication of a Fever, when the vitious Salts are imprison'd, he says, *Nature endeavouring to eject 'em, occasions that violent Commotion.* So that Nature is a strange kind of an amphibious Creature, and the Doctor makes any thing of her but an Apothecary. Nature raises Diseases, and Nature throws off Diseases as she pleases. Nature raises Ferments, and Ferments raise Fermentations, and Fermentations putrid Fevers. And thus he runs on to the end of the Book. The Acids and the Alkalis, if in their Ebullitions and Conflicts, they cannot master one the other, they shake hands, and are very good Friends; while the Oily Bitters and Aromaticks, if they cannot expel the Acid too, they unite with it, and it is all for the better still. The Blood, he says, is assisted in its Separations, and strengthened in its Mixture, so as to be able to keep the Principles

Principles together in their natural Union. The Bitters, as *Hops, Gentian, Broom*, preserve Beer and Wine, and yet he forgets that in Page 85 he ranks Broom under the sweet Astringents: But this is so familiar to him, he fancies no body will take any notice of so small a fault as that.

The Sweet Astringent.

Polypody, Harts-tongue, Whitlow Grass with the Rue Leaf, Ladies Mantle, Broom, Liverwort, Spleenwort, the Maiden Hairs.

These have the same effects as the other Astringents, and are us'd in Diseases and Constitutions, which will not bear the more powerful force of the Bitters.

And yet to serve a turn, he ranks Broom with Hops and Gentian, as he does ground Ivy and Liverwort in another place under the Turpentine Kind. I will not Dispute it with the Doctor, but he may have some Authority to justify these Assertions, as *Culpepper*, and some others of that Class, but he has neither Reason nor Experience to maintain 'em.

Having discours'd something before of a Fever, as simple and unmixt, I shall attempt something in short of an intermitting Fever: Which

Which, as I take it, proceeds from too great a plenitude of Aliment, which cannot be converted to Nutritious Juice, by reason of its obdurate quality; it resists the attrition and grinding of the Stomach, being of the nature of a *Tartarus Ingenitus*, too gross and fæculent; it mixes not with the Alimentary Mass, but adheres to the glandulous Coats of the Mesentery and Intestines, especially in their minuter Ramifications.

In process of time, more tenacious Matter is contracted, which soon procures irregular and disorder'd Motions in the Fluid, by reason of the Obstructions that of consequence follow such daily accessions of new Matter, which readily accumulates to itself all the Heterogeneous Particles, and so degenerates from a regular and natural Heat, to what we call a feverish and unnatural Heat. The reason of this accession I conceive thus.

There is requir'd a certain time for the collection of a sufficient quantity of Matter, to produce a Paroxysm or fit, which rests in the glandulous Ducts of the Intestines and Mesentery; which being plac'd for the Separation both of the Chyle and Lympha, the alimentary Mass by the accession and commixture with the more acrid and bilious Juices of the Gall and Pancreas, produces hereupon the first Secretions of those Obstructions,

ctions, from whence arise those disorder'd and irregular Motions.

The rise of intermitting Fevers I take to be seated in the Glands and Passages of the Lympheducts, in which places the Heterogeneous Juices become vitiated, being debar'd of the usual motion and assistance of the continual action of a regular heat; and so of course observe the same stated and periodical motion with those Juices they there meet withal in their passage.

When such a quantity is coacervated or muster'd up together towards the accession of a Paroxysm, it lasts longer or shorter, according to the condition and quantity of the Matter so collected, and consequently makes its returns in proportion to the time that is taken in coacervating such a quantity which remains in the first Passages, and which follows no constant course, but differs even to the extinction of the regular Motion in Nature.

In this case, the Stomach seems chiefly concern'd, which is made unapt to perform its regular Functions, by reason there is too great a relaxation of its Nerves and Fibres; so that the tone of it, or, if I may so say, its natural contracting force, is lost and broken. Hence proceeds a precipitate Digestion of the

the aliment, from this looseness or glibness of the Stomach; and those juices necessary for Nutrition, are not fitly qualified and dispos'd for that work, and so consequently the separation that is afterwards made by the Glands of the Intestines, is made up of more crude undigested and tenacious parts, which in the more minute vesicles of the Chyle and Lympha, by degrees draw up and obstruct the flowing of the juices in their usual Channels, and so according to the time of their continuance, gain a greater or less head and force, and so produce fits longer or shorter accordingly.

To return from this digression of Diseases to the Subject matter of Doctor Pitt's Book, I shall present you with a Paragraph so truly applicable to himself, and his *Dispensary* Friends that I cannot pass it by.

By this time, we presume, the Reader is convinc'd that private Interest too often influences many of our Modern Physicians, and makes them prescribe such Medicines as tend most to the Apothecaries gain: the Dispensarys, or rather their own, as it did most notoriously when Dr. Torlesse brought in a Bill of 55 l. 8 s. lately, and insisted upon the odd Shillings, to show how Conscientious he wou'd be thought that cou'd not abate that Money out of Fifty five Pound for a Months sickness, or but little more,

more, in the Case of an *Astma* of one Mr. *De Bart*, a Merchant of *London*, whose Son Married Sir *John Fleet's* Daughter, Dr. *Torlesse* being sent for to *Battersey*, to take care of this Gentleman, whom he advis'd to take his Medicines of the Dispensary, and he himself wou'd take care they shou'd be extraordinary good, (and extraordinarily well paid for) when the Doctor had the Conscience, after such excellent Success as the Death of his Patient, to bring in a pretended Bill from the Dispensary, written with his own hand, as several Physicians can attest that saw it, some of whom gave me this account as a real Truth, which I cou'd scarce believe, because I do not think any Patient in that case cou'd take five Pounds worth of Medicines, at the prime cost especially, and when Dr. *Pitt* has shewn that those costly pretended Medicines which so much raise the Sum in the Bill have no real vertue.

When the Doctor talks thus, to reduce Medicines to the vilest Prices, I fancy he only tells us what he wou'd have them to be, not that he must needs know they really are to the contrary; an Instance of which I shall give you in the following story.

A Committee of the Governors of *St. Bartholomew's* Hospital being appointed to enquire into the expences that the Hospital had been

been at in Physick for one year, which they found amounted to a greater Sum than usual; and accordingly examin'd the Apothecary to the Hospital how that came to pass? He answer'd them, Because Doctor Pitt had order'd Sweet-Meats instead of Physick; the Doctor being enquir'd of how this came about, reply'd, he had directed them only a Balsamick Electuary, which might be afforded at Three farthings a Dose; one of the Committee told him that was no certain way of reckoning, but desir'd he wou'd acquaint 'em what he thought that Electuary was worth by the Pound, he answer'd 9 *d.* they desir'd to know what it was, he replied, that it was a Composition of Conserve of Red-Roses, Pulp of Raisins, and dispumated Honey, actuated with Spirit of Sulphur or Vitriol.

Some of the Committee ask'd the Doctor, what a pound of pulp its self might be worth, he answer'd, Three pence; but upon the place they expos'd his ignorance, by showing to the whole Committee that it wou'd take near Three pound of Raisins to make one Pound of pulp, and then let any one judge what the price will be.

He was likewise interrogated what the prime cost of Conserve of Roses might come to, he told 'em not above Nine pence per Pound;

pound, when at the same time, by Particulars, he was brought to confess, No Man can make it good, and Sell it under three times the Price, especially if he delivers it out by Retail.

This is matter of Fact, and told me by a worthy Governor of that Hospital then present, amongst whom there are many more, who are very sensible of the Artifices us'd by the Doctor, not only to impose upon them, but to deceive the rest of the World; for who can think otherwise of the Man that speaks particularly of Medicines, and says, That the greatest part of the most efficacious grow in our own Gardens; that if some few are fetch'd from Foreign Countries, they are us'd in so small quantities, that the Doses are of the lowest Price, and at the same time rails thus as he does against *Bezoar*, and daily prescribes it.

And yet in the very first Paragraph of the Catalogue of Simples, out of Fifty six he there mentions, Forty two are of Foreign Growth; tho' in his Observation of the Catalogue, he tells you, they are mostly of *English* Growth, which you may judge by the following Catalogue.

The Acrid Aromatick.

Cinnamon, Mace, Cassia, Sassafras, Nutmegs, Cloves, Pepper, Cubebs, Cardamums, Zedoary, Ginger, Cyperus, Costus, Calamus Aromaticus, Galingal, Winterane Bark, Stechas, Clove July Flowers, Saffron, Elder Flowers, Angelica, Hyssop, Lavender, Lovage, Baum, Mint, Rosemary, Marjoram, Masterwort, Spignal, Scenanth, Saverly, Burnet, the Peels of Citron, Orange and Lemons, the four Carminative Seeds: From Animals, Chochineal, Chermes, Musk, Civet: Gum Labdanum Animi, Benjamin, Carrauna, Tacamahaca, Elemi Styrax, Balm of Tolu, Balm of Gilead, of Peru, Capiuy, liquid Amber, Ambergreese.

I wonder how many amongst us see the greatest share of these Simples grow Natives of our Gardens; but we may without doubt sooner collect 'em from the Drugsters Shop, the surest place to find 'em in, for all the Doctor's Learned Discourse, who tells us the Preparations of these are very easie and simple, to be taken either in Powder, or cut or bruised to be us'd in a Liquor to extract their Vertues. Not so easie neither as he wou'd have you imagine, when he says, the first is of so little trouble, that if the Doctor was set to reduce some of 'em to fine Powder, it might puzzle his Philosophical Head-piece, if
some

some Apothecarie's Boy had not instructed his worship beforehand ; *And you may as readily compute the expence of the Liquor or Menstruum, in which they are to be steeped or dissolv'd ; these are Spring-Water, distill'd simple Milk-water, the several sorts of Wine, and the Spirits either of Wine, or those most frequently us'd of Melazes or Malt, or corrupted fermented fruits. When you know the rates, you will add the value of the Spring-water, &c.* No doubt but your friend, Dr. Torlesse, took this advice to add the intrinsick value of the Water and the like, to the rates of all his Medicines he gave Mr. De Bart, when he brought in his Bill of Fifty five Pound Eight Shillings for prime costs ; and to be sure the Dispensary have not their trade to learn at this time of day, having such apt Professors to take Example from. But we must consider further the other Additions of loss of time, and the charge of Fire, and the use of Vessels ; but this Doctor Pitt forgot when he reckon'd with the Committee at the Hospital, about the price of his *Flectuarium Balsamium*, these Items were not in his head then, but he was resolv'd as soon as they came there not to apply them to the intentions, by which his Memory was refresh'd, namely, to show that Medicines cou'd not be allow'd so cheap as he wou'd have them ; but on the contrary, he argues, That because these things are to be so consider'd, Medicines still may be afforded

at the lowest prices we can think of: Indeed this is a particular method that he takes to support his cause, by turning the Argument always upon himself.

For notwithstanding he tells you every where of a half-penny and Three Farthings a dose for this Medicine and the other, he seldom fixes a price certain for a certain quantity, but says this and the other is a Penny, or Two Pence, or Three Pence, which, when you come to reckon by the Pounds, or the Hundreds, makes a vast difference.

It is plain he was ignorant of the prices of Drugs and Simples in his first Edition, since he makes nothing of it to rate the same things at double the Price in his Second: And I doubt he understands them no better now, but as the Drugster that pric'd them for him has inform'd him; for he says the Herbs of our growth are bought in the Market at a Penny the handful, the Flowers and the Seeds at the double value.

I wou'd gladly know of him in what Market he buys Flowers by the handful, or if he does, (a singular way by himself) whether they be not more then double the value? For there are many of the Flowers worth Six Pence, Eight Pence, and a Shilling the Ounce dried, as Rosemary, Violet, Bor-
rage,

rage, Gilly-flowers, and some others, and it is rare that any are bought but by weight.

If then Mace, Cinamon, &c. be Six pence or a Shilling or two the Ounce, shall the dose be more than One, or Two, or Three pence? But Cassia, Sassafras, &c. are but One, Two, or Three Pence the Ounce.

Is not this a very odd kind of way to prize Medicines and to pretend to ascertain the exact Rates of 'em in the Apothecaries Shops? Then he goes on that *Labdanum*, *Carranna*, and the like, will afford many Doses at the lowest rates, a Farthing, or a Penny, or it may be for ought he knows Five Farthings, or a Shilling: Is any one do you think the wiser for this Instruction? Indeed it may make People more ignorant, and consequently more jealous, that every body will cheat 'em; however it is well enough if the Apothecaries do not.

He says he has taught the art of Compounding and Mixing of the several Preparations into Juleps, Boles, Powders, Infusions, and Decoctions, either from the general and common Practice here, or from the advice of the most consider'd Physicians of Europe. But when he comes to Proportion them, he begs your excuse for that, and tells you the Physician will do that when you send for him to consider

your Age and Constitution ; indeed you are much better for the Prescriptions he gives you. But tho' he be a niggard to you in his directions, he is liberal enough in not confining you to any quantities, which you may enlarge at your own pleasure.

He that does not take the Doctor for a Cunning Man, is much mistaken ; or that will not think he is a good Arithmetician, as well as a Physician, when he tells you, that if a Pound of Beef cost you Three Pence, half a Pound will but cost you Six Farthings, and then an Ounce wou'd not cost you a Farthing ; and who knows but if we bought our Beef wisely by the Ounce, we might get it for nothing. He says,

Balm of Gilead at Twelve Pence the Dram, will cost you but proportionably to the number of a few drops at one time. O wonderful Secret ! Who cou'd have thought of such a discovery as this ? But the Doctor, who can tell you the Prices of Medicines, from something to just nothing ; and from nothing again he can make 'em, what he pleases.

In the first Edition Saffron and Syrup of Chermes, was rated at Three Pence a Dram, now they are Six Pence, a good rise in so small a time ; the Drugster, I hope, has got by the bargain, since the Doctor handled the
matter

matter so well, as to advance their Drugs
Cent per Cent, by the bare dash of his Pen.

The Fetids, many Doses of which he says you may have for a Farthing, but he does not tell us where, else I am apt to think they wou'd have more Custom then profit: For at the Dispensary it's plain, I think, there is no such prices, else their own Members ruin the Reputation of it, by bringing in such long Bills; and the Apothecaries don't pretend to sell at any such rates, so that we are to seek still where we shall purchase these half-farthing Doses, notwithstanding we be never so much convinc'd they may be afforded us at that rate.

“ That Fetids offend the Spirits in the Or-
“ gan of Smelling, is evident to common Ex-
“ perience; now when the Spirits have Irre-
“ gular motions, either in the Brain or
“ Nerves, which are observ'd in Hysterical
“ Affections and Convulsions, they are use-
“ fully applied to restrain the violent mo-
“ tions.

Now I shou'd rather think the quite contrary way, that whatever offends the Spirits, and is disagreeable to the Smell, shou'd rather raise and encrease Irregular Motions than restrain them; and I think for that end Fetids are us'd, when the Nerves are obstructed, and the Spirits depress'd, as in Hy-

sterical cases, the disagreeableness of the Fetids, whether Internally or Externally us'd, add fresh Life and Vigour to the Spirits, by raising a Commotion in them, that were before flat and depress'd; for the Doctor allows they raise and increase the Irregular Motion, and no doubt but by that means they become serviceable to the more flatulent and vapid Fluid, in Hysterical and Convulsive Bodies. Whereas sweet Scents wou'd rather indulge and relax the tone of the Parts, and dispose them still to a further inaptitude for Motion, than encrease the Motion of the parts which are agitated by the violent emotion of the Fetids, from the disorders they procure by their ungrateful Mixtures.

Amongst the Bitter Acrid, as *Serp-Virg.* &c. he reckons *Alexanders Melilot, Colts-foot, Flowers of the Lilly of the Valley, and Sefeli Seed*, which last I think ought to be plac'd under the *Sweet Aromatick*, and some of the other under the *Vulnararies* of the *Turpentine* kind, he says these abound in volatile parts, which give a brisker Motion to the Nervous juice.

But suppose there be no Nervous juice at all, why then they must do something else, and move whatever lyes in their way, as the Doctor does when he prescribes the Apothecaries Medicines; he tells you, the Flowers of the Lilly

Lilly of the Valley are at One, Two, or sometimes Five Shillings the Ounce, now had not he as good have set no Price at all, as make guess work of it at best. But after this manner he runs thro' the whole class of Simples, of which he has certainly made a good Collection, and which are sufficient for the use of Mankind, if they rightly understood what was most conducive to their own Healths.

After the Doctor has deliver'd his Catalogue of Simples, with the prices he affixes to 'em, he falls to his old way again of exclaiming against the several Preparations of the Shops, and the Medicines that are made from them, which is nothing but cant to carry on his designs of discouraging Pharmacy in any but the Dispensary, where they may indeed be easily misus'd by Ignorance in the Composition or Application of them, and so there may be some reason to complain that the Preparations of a pretended art can never come up to those which the hand of Nature compounds.

Can any Chymical Oils or Spirits vie with the active parts of the Balsams and Gums, and the lively Spirits of the Flowers and Seeds, which are better preserv'd from wasting and evaporation, by the Gumminess of the one and the covers of the other, then the distill'd Spirits in the Vials?

Most

Most certain we have extracted Oils from the Woods, that far surpasses any other methods we have to make 'em exert their active Parts, as from Cinamon, Juniper, and several others; besides the time that these will endure as well as at the first day of their Extraction, when the subtle Spirits are lost from the Flower in a short time, the Spirits of 'em will endure for many years, as Lavender, Rosemary, and the like. So the Chymical Oils of Caraway, Cummin, and many others, shall last for Ages, when their Seeds are perish'd: Which makes it plain, they cannot be preserv'd from wasting and losing of their vertues in their Natural state, when by Art they may be preserv'd entire from both.

But he says, "The Simples in all Ages, and at this time in the largest Empires, where Nature has not been deprav'd by Art; and in the most honest and successful Practice of Physicians, in the use of the known Domestick Remedies, they have been, and are now rely'd on, as the most innocent and most prevalent, and most certain Remedies in all the Disorders of Health.

I'll grant him, the Simples, and especially the known Domestick ones, are the most Innocent,

nocent, but not the most Prevalent, or Certain Remedies to Cure Diseases. For, to which of the Simples must we fly to in the Relief of an Universal Pox, and all its attendance, which introduce amongst us so many stubborn and inveterate Maladies? Which of the Simples can out-rival the Mercurial Preparations, with those of Tartar, Nitre, Antimony? &c. Or, what Native Simple (but Opium) can compare its Use with the Chymical Oil of Turpentine, and some others, that are serviceable both to Man and Beast?

What Vegetable Emeticks or Catharticks can equal those of Tartar, Vitriol, Antimony, Mercury, and others, from the Mineral Kingdom? Or, are there any Vegetable Astringents comparable to the Mineral? All, or most of which, are the labour'd Preparations of Art, and not the Spontaneous Productions of Nature: Tho' the Doctor says, That Nature itself Expels by its own Vomiting and Purging the most corrupt Humours, and Prevents or Cures the most dangerous Distempers, yet the Artificial Vomits and Purges Cures the most dreaded Diseases, and remedies the Universal Corruption of the Mass of Blood.

Now, if Nature can do all without Art, and Cure the most dangerous Diseases, what need

need is there of employing the Artificial Vomits? Or why this choice Catalogue of Simples, with the fine flourish upon them of *The Acrid Aromatick*, the *Fætid*, the *Bitter Acrid*, the *Bitter Astringent*, the *Bitter more Astringent*, the *Acrid hot*; the vulneraries of the Turpentine kind, the *Sweet Astringent*, the *Sweet Aromatick*, the *Acids*, the *Watry Mucilaginous*, the *Watry Bitter*, the *Sweet Oils*: And this to no purpose, if Nature can do the business by its self, as it surely can, if it be as the Doctor says: Besides, if she was not able to do it, she takes such care as to direct us; and commands that every Simple be given by its self, either in Substance, or be infus'd or boyl'd in the Stomach, or infus'd or boyl'd in Water or Wine, to be taken out unalter'd by the Liquid, and to be convey'd into the Stomach. But the Fraudulent Physician destroys this design of Nature, by turning it into a vapid insipid Water, and a stinking and burning Oil: The Crafty Physician puts many Drugs into one Mass and confus'd Composition.

He shou'd not have call'd 'em the Crafty Physicians, for I doubt they understood not the Craft of Physick, that made such confus'd Compositions as the College have done for so many years, and as Doctor Pitt and the Dispensary do at this time, when every days Prescriptions produces so many blunders in the Composition of Medicines. They may
well

well argue so Strenuously for the Practice of Simple Medicines, because they are Ignorant in the Judicious compounding of Drugs, which is Indispensably necessary towards the making of a good Physician.

He says, *They either act with great Violence, or by correcting as is pretended, Null and Destroy all the healing Powers of every Ingredient.* That is such as understand not the *Materia Medica* as they ought to do; 'tis true such Persons will commit unpardonable mistakes, both as to due Correctives and due quantities, so as to give the Mixture such a Consistence as is requisite to the form they design, not like the Prescriptions of the Dispensarians, who make Liniments as Stiff as Plaisters and Electuaries like Syrups, and who Prescribe three parts Liquid to one Solids and entitle 'em with a *Misce Fiat Pulvis*.

And when the Generous not deluded Patient shall consider the great trouble and Contrivance of a well design'd Preparation, and with all be made Sensible of it, by the great good he receives from it; he will then certainly not only part with his money with the greatest Pleasure, but set a more then ordinary Value upon the Physician for his extraordinary Pains.

For I wou'd gladly know if every one does not set a greater Value upon his Counsel that takes the pains to draw a deed, all with his own hands then he that commits it to his Clerk, and so but Superficially looks it over, and why we should not have the same, or a greater esteem for those that Sedulously take care of our Healths (which is the dearest thing to us in this World) I can not understand.

I wonder the *Dr.* should take so much Pains to explain Terms of Art with which every Pharmacopeia is Stuff'd, without he designs to teach all the old Women in the Country to turn Apothecaries, against he be sent for to Prescribe 'em Physick: or else it is his great Charity to them that when they are making a Hasty Pudding they do not mix it to the Consistence of a Dumpling, for what need was there of being so Particular in explaining of Terms at this time of day, unless he design'd his book cheifly for the use of old Women and Nurses: Undoubtedly he had some such thoughts in his head when he set about so great a work as unfoulding the Mysterious Signification of the words Decoction and Infusion, upon which he spends a whole page, but wou'd really Puzzle a wiser head then his own, to apprehend as he tells you that, *The Cutting, Bruising, Filing, Rasping Herbs, Metals,*

tals, Horns and Bones is as easily Practis'd as apprehended.

I find then the *Dr.* wou'd think it no Punishment to beat Hemp in Bridewell or Rasp Brasil in the Rasp Houses of *Holand*, which is accounted one of the greatest Slavery's in the world and it is certainly a most Laborious thing to Rasp any hard Wood or Horn, or File Iron, or Cut and Bruise Herbs and Wood; which are much easier apprehended then practis'd. I am loath to be of a Contrary Opinion to the *Dr.* but believe in this I shall have all the Mob on my side, and then 'tis no matter how Powerfull foe-ver he may think his arguments I shall overcome him by force of Arms.

From this explanation of Terms, he proceeds to the Preparations of Galenical and Chymical Medicines, and most of which that are contained, in the *London Dispensatory*, not without just reason he Condemns, but offers not, tho' he himself is a member to make any Apology why they have not all this time put forth, a new one, and so have acknowledg'd their errors and shown the world they cou'd tell how to Correct it, better than those who attempted it before and rather made it more ridiculous, as has been Sufficiently remark'd by others. But then they cou'd not have Cramp't the Apothecaries

thecaries as they do now by telling you, they have a new Store of Medicines in their dispensary, which the Apothecary knows nothing of, and that they will never discover to him any of their Valuable Secrets, but such as are not worth the keeping, which are all such as they have among 'em, other than what are known to the general Practice of the Town and therefore the Doctors boast of their Superiour knowledge in the *Materia Medica*, is as little regarded, as that of the Excellency of their Medicines above those commonly dispens'd in almost every Apothecarys Shop in *London*.

The Censure the Doctor passes upon the Simple distill'd waters wou'd be just enough if he had not so Generally Condemn'd 'em as to tell you they are no more Cordial, or Spirituous then the Water Stagnating in the ditch, and that the bitter and Restricting Plants cannot communicate any Vertue to the water, tho' I'll appeal to Practice whether *Wormwood*, *Plantaine*, and *Mint*, are not Effectually us'd to the Purposes they are design'd, and I know of no Body that attempts to distill or at least makes use of the Waters from *Rhubarb*, *Aloes*, *Falap*, or the *Jusuits-powder* which he gives us for instances. when as there are no such things in Practice. He says,

The Cooling Acid Plants will not make the Water of any use to cool, or Extinguish the Heat of Fevers. I know to the Contrary, and that Wood Sorrel, Purslain, Succary, and Poppy-waters, have been very Serviceable in the most Burning Fevers, tho' I must confess there is a great deal of Difference according to the way by which they are distill'd, but some of 'em will afford you a very Pleasing and refreshing Spirit, and be very agreeable to the Stomach, and undoubtedly are excellent Vehicles, and very necessary in the Practice of Physick.

As for the Compound Waters, I cannot find above two or three of them that are of any use at all, and therefore have Often wonder'd why so many of the College Members have rely'd upon 'em in their Practice, that one of the *Dispensary* shou'd Prescribe nothing else in a Burning Fever, but one of the worst in the whole Catalogue of Compound Waters.

As for Tinctures, Wines, Vinegars, and Decoctions, the Doctor had no Occasion to mention 'em, without it was to show that the trouble in these things, is the greatest Pretence to the Price, and I think a very good Pretence too, else what Pretence have we to expect Fees.

There is a large Rabble, he tells you, of the Simple Alterative Syrups which use has disbanded. Now in my way of understanding English, the use of a thing shou'd confirm it, not disband it, as he calls it, and make it hardly allowable in the Practice of Physick, but what is continu'd in Custom is look'd upon as reason that it is Still Serviceable, but this is of the same peice with all the rest, for the Medicated Vinegars are to be rejected because they allay the Heat and Ferment of the Blood, and the Simple alterative Syrups are to be exploded because they Ferment in the Bowels and so corrupt the Blood. Beside he says the heat of the fire evaportes, and waists the Vertues of the volatile, and Finer parts of the Cordial and Spirituous Simples. I doubt the Doctor understands not to make Syrups as he ought to do, else he wou'd not talk at this rate: For it is well known by almost all Persons, that the Favour and Spiritious parts of the Violet and the Gillyflower are no ways Preserv'd so Perfectly as in the form of Syrups; and after he has told you they are of little or no use, to little or no Purpose, he says they are Sold at Four Shillings the Pint, when in the first Edition it was but two; and this is his usual Method thro' the whole, he says and unsays, just as the whim takes him, but he is quite of another Opinion as to the Prices of Medicines through out

out his Second Edition, from what he was before.

Most of the Purging Syrups, he says, lose all their Vertue before the Seasons of making them return, as the Syrup of Peach-flowers, Roses and Violets. That is when they are made by those that don't understand how to make 'em keep as good two Years together, which I dare Warrant to vie with any the Dispensary can Produce, but he will perhaps say they don't trouble themselves with such Trifles, they being unnecessary and disus'd.

From hence the Doctor runs thro' the Honies, juices evaporated to the Consistence of Honey, Lohochs, Roots, and Peels and Flowers Condited, Conservees, Sugar of Pearl, the Powders Electuaries, Purging and Opiate Pills, Troches, Oyls by Expression, Infusion, and Decoction, Compound Oyls, and Oyls by Distillation, Unguents, Plaisters, all which are pris'd sometimes over and sometimes under, as you may judge by those I particularised. After this he tells you of the Integrity and Prudence of the Foreign Physicians, who have Contracted their Dispensatories, to the Shame and Scandal of ours, for who cou'd have contriv'd a Severer Satyr against the College then Doctor *Pitt* has Publish'd, and I think has represented them in their true Colours, for how can it any ways Effect the Apothecaries, when the College Authority maintains the Cheat.

From the Galenical Medicines we are brought to the Chymical, the First remark of which is that the Spirits Tinctures afford from the Ounce, but four Hunderd and Fifty Drops, whereas a Dram of Oyl contains a Hundred Drops, which makes eight Hundred in the Ounce. Whence comes this difference I pray? but Drops are a very uncertain way of reckoning, as Draughts are, where one Man will pull off as much Liquor at once as another can at Twenty times, but this is a nice way the Doctor has at Puzling a cause, by his Drops and Doses at three Farthings, one Farthing and a half, so he tells you Oyl of Cinamon is worth two peace a Drop, and a Hundred Drops in a Dram, is Sixteen Shillings and Eight Pence *per* Dram, any body may buy for Five Shilling; but this is his Luck at Gueffing.

Then he rates Spirit of Hartshorn at one Shilling the Ounce, when I can buy for a Groat or Six Pence at the most.

Spirit of Wine rectify'd at three Pence the Ounce, you may Prachase as good at four Shillings a Quart which is but half the Money. Spirit of Saffron, and Castor with Hungary-water at one Shilling the Ounce, the Hungary-water is not worth above a Fourth part of the value, and may be afforded good for Ten
Shillings

Shillings a quart when he reckons after the rate of two and Thirty Shillings.

The Tinctures of *Castor, Saffron, Steel, Salt of Tartar*, the *Elixir Proprietatis*, are of one Shilling the Ounce; you buy any of them for half the Money.

The Volatile Salts of Hartshorn one Shilling, *Sal Armoniack* Six-penc the Ounce. Salt of Amber one Shilling the Dram, it is but Six Shillings per Ounce, and then tis easie to reckon the Dram, and so he goes on thro' the Catalogue of Chymical Medicines, sometimes hit and sometimes miss; for 'tis all one to him, so that he can but Support his designs against the Modern Impostors of this Age; for these Simples, and Preparations which he has Mention'd, he says may be easily mixt together without the help of an Apothecary. And all this while the Doctor thinks he is acting the part of a sincere and honest Friend, to the Profession, whilst he is Racking and and Tearing it to Peices. The Publick is to be Serv'd, and so he is turning Translator of Latin *Recipes* into English, for the use of such as understand not the Language of the Beast.

*A Collection of Prescriptions Translated
from Dr. Fuller's Pharmacopeia Ex-
temporanea.*

A Cephalick Draught.

Water of Black Cherry, of Rue, Pejony Compound, with Tincture of Castor, and Spirit of Lavender, make a Hauſtus to excite and actuate the Spirits.

The Doctor informs us not whether this be design'd for a Horſe, or a Man, by the want of Proportion, which he ſays the Phyſician will acquaint you with, what need then have you of his form, for if you imploy a Phyſician, he is able do direct the form ſure as well as the Proportion. But he has ſhown himſelf a buſie Man to ſerve the Publick while he takes up a whole Sheet in Setting down Materials of Phyſick, without either method or Proportion, barely to let you know how cheap they are after his way of reckoning, when he had given the prices of em, diſtinctly before, as I have obſerv'd to you, but this is his Officiouſneſs, in which he is often very impertinent, when over and over again he reckons if the Medicine coſt ſo much by the Ounce, it will then be ſo much a Dram, and ſo much a Grain, or a Drop: In which I have ſhown you he is very Correct, as he himſelf Imagines, but any School-boy
may

may discover he is but a Quibler at the best, and Judges no better of Proportions and Prices, then he does of Medicines, in which he is so Lame, as to mistake in almost every Simple Compound that he Mentions; in this Syrup and that Water, this Electuary and that Powder, that he really wanted the assistance of an Accomptant, and better Skill in Numbers, when he compil'd (as he Fancies) this Elaborate Peice of his, wherein he does wisely to direct the Patient to get the assistance of an Accomptant, when he wou'd discover the true Estimate and expence of a fit of Sickness. From his Calculations of the Prices of Medicines, he must be a very Cunning Man that gives him any Assistance in this matter, and must be an Algebrist as well as a vulgar Arithmetician,

After the Patient has well consider'd, from the Doctors Estimate, at how easie a charge he can go thro' a course of Physick, he may then more willingly comply to all the Directions Prescrib'd by his Physician, and live on Physick as cheap as the Simplest diet; nay and I don't know but he may live much cheaper, considering Perhaps that course of Life won't last so long as the other; when the Blood, as he Learnedly explains it, cannot move its own internal Separations, to refine it self. What a Pretty Philosophical turn, this has in it, that the Blood is to move it self, to refine it self.

self. I thought the Doctor had understood that *Quicquid Movetur Movetur ob alio*, but by the internal Separations, he Aims at Fermentation which all the disperited watry Liquors utterly destroys, and for that reason, by use, he disbands 'em out of his Practice.

The Ancients after *Hypocrates* and *Galen*, had General rules of Curing diseases, which seem to have been confirm'd by the Consent and Universal approbation of succeeding ages, but the *Rationale*, upon which they laid such rules and Methods, was built upon no better a Foundation than the Authority and bare Opinion of such as were the first Inventors of Physick: but because the Preparations, Applications and effects of Medicines cou'd not be rightly understood, but by a long Series of Practice and experience which advanc'd but with a slow pace, therefore in the days of *Hypocrates*, when every man went to Enquire of his own Health, there were Tables fix'd in the Temple of *Æsculapius*, in which the whole History of the disease, and the Remedy proper for its cure, were Succinctly describ'd. So we find men have in all Ages been carefull and Solicitous for discovery of good, and proper Remedies, and as forward and ready some have been to expose 'em Publickly for the common advantage of all Men: but in those earlier days, the knowledge and Preparation of Medicines was rude, and but
in

in its Infancy, which since, by a long Tract of Time, has been, by many Eminent Physicians and others, wonderfully augmented and adorn'd; that at this time it appears rather to be too much enlarg'd to admit of so many useful Improvements, as the further Perfection of that Art might now produce, were not the *Materia Medica* so very Copious. For most of these Medicines were known to the first Ages, which the Industry of the Moderns have discover'd, and from thence further sought into, and explor'd the various Preparations and Compositions of Medicines.

But, least some shou'd understand the Preparation of *Chymical* Medicines after the same manner as they do the Composition of *Galenical*, from whence they make an Estimate of the Vertues and Qualities of the whole Compound, according to the Nature of every Simple in the Composition; I must acquaint 'em, that the Reason of many Chymical Preparations are quite different, for there is no necessity that all the Simples us'd in the Process shou'd remain in the Perfection of the Medicine.

And it is sufficiently known with what care and diligence the *Chymist* labours to free the Impression or Tincture of the Dissolvent, or *Menstruum*, from the thing prepared;

pared; so, altho' we grant many Simples may concur in several Preparations, yet notwithstanding we may assert some of 'em to be pure Simple Homogeneous Productions; For who knows how Medicines acquire different Properties, and oftentimes quite contrary ones, according to the variety of their Preparations? For Example, *Antimony*, as it is prepar'd, becomes *Emetick*, *Cathartick*, or *Diaphoretick*, which qualities are rather known from its Effects, than from the Method of its Preparation. Here we may speak after the Principles of the *Peripatetick* Philosophy, *Manet quidem eadem Materia, sed aboletur forma Substantialis cum qua etiam prioris concreti facultates in tereunt.*

But Doctor *Pitt* has industriously ingag'd himself to the Art of Thief-Catching, that if happily by that means he might contribute something to the Advancement and Ornament of Physick, which he cou'd not better think of, then in the pursuit and discovery of the Crafts and Frauds thereof, and so preserve the World from Ruin, by his honest Clandestine Artifices, joyn'd with other Physicians, to explode that old Amusement and Cheat, and so destroy and bury those Folio Prescriptions of Electuaries and Syrups, which have done any good for these Thousand years, but they are grown old, and it is

is time to change the Mode in Physick as well as Cloaths.

The simple Tinctures of Opium, &c. have made the Publick sensible of the more certain effect of the Natural Preparations.

Who ever made a doubt but the World was always as sensible as they are now, that the more Natural the Preparation, the more Efficacious the Medicine wou'd be ; for it is not a dependence on the large number of the Ingredients, but the Art in the Compounding of 'em ; and however the Doctor may fancy the Thirty or Forty Qualities of the different Ingredients affect the Stomach at once with so many contrary Impressions, I doubt it is for want of a true Judgment in discerning the exactness of Mixtures, and the Principles and Compounding parts of all the Vegetable and Mineral Substance. He says it is to Chymistry, and to experience by her advice, we owe all our knowledge in Medicines.

I am very glad to think he will allow any thing to Art, but he has no sooner advanced her Excellency, but it must all terminate in the lowest Offices of making Tinctures, and Decoctions ; her Spirits, Extracts, Volatile Salts, and Oils, are all forc'd Productions, that are rob'd of all their Essential Properties,

ties, and have no power to perform what the true and proper Instruments of the successful Practice of Physick ought to do; so that all those Methods which have hitherto been rely'd upon and experienc'd for good, must give way and yield to the admission of others, while they lye by, despis'd and rejected.

The Doctor returns again to explode the Simple-distill'd-Waters, the *Bitter* and *Restricting*, the *Acid* and *Cooling*, the *Mucilaginous* and *Nourishing*, the *Flagrant* and *Aromatick* can Communicate no Vertues to the Waters drawn from them, in his Opinion; tho' the *Penny-Royal*, the *Rose*, the *Wormwood*, and the *Mint-Waters*, are most grateful to the Palate and acceptable to the Stomach, and exert all the good qualities they are capable of communicating by any Method; tho' some may be more agreeable in Tinctures, all are not so.

He cannot here forbear repeating again that the Pearl quiets the Ferments of the Stomach at one time, and raises in the Blood a Gentle heat at another; that it produces Green-sickness and Obstructions, whilst it is able to put the Blood in a quicker motion, and so effect Perspiration and Sweat. This is arguing profoundly from the Mysteries of Nature,

Nature, which he Illustrates with all the Per-
spicuity of a Dispensarian. The Pearl having
just before stopt the Fermentation of the
Blood, vitiated and destroy'd its motion,
and yet at the same time rais'd and agitated
the Blood, by causing an Ebullition, now
Sugar is to work Contradictions too, " For
" it Ferments in the Stomach and Bowels,
" and raises Flatulencies, and Colliquative
" Diarrheas, that the Histerical and Hypo-
" condriacal cannot bear almost any Medi-
" cine made with it, &c. In another place
it is styl'd the Physicians Salt, by which he
preserves the perishable Herbs from Cor-
ruption, as Flesh and Fish are kept by the
Common Salt, or as Pickles by Vinegar and
Salt. This is strange sort of Philosophy,
that what is, as he says, for Preserving from
Corruption, shou'd make things lose their
Smell and Taste, and become more Corrup-
tible, as he says the Purgative Syrups from
the Flowers lose their Operation after some
Months; which is positively false, as I have
already shown, and further know that some
of 'em will keep as good as at the first day,
Three or Four years together.

Speaking of Boles, he says, Ninety in the
Hundred, the most Cordial and Alexiterial,
are worth about a Penny a piece, the other
from that to Sixpence, the draught may be
Two pence.

Or

Or Two Shillings, for ought he knows of the Prices of Medicines by his own Catalogue; but his Arguments of this Nature will be sufficiently refuted, when you shall consider distinctly the true Prices of Medicines, first, from the Merchant to the Druggster, then afterward when they are Manufactur'd by the Apothecary, and in small quantities, with much trouble and expence of time, compounded according to the Physicians Prescript, and deliver'd to the Patient, the Price of them then is to be reckon'd after another manner, not as the Doctor did with the Hospital. But as every indifferent Trader wou'd do one with another, allowing a Moderate gain; and then the Doctors Penny Boles, and Two Penny Draughts, will amount to Twelve Penny ones, and sometimes Half Crowns, I doubt; when the Apothecary shall add to every Bole and every Draught, *Item*, for Shop-Rent; *Item*, for Utensills; *Item*, for Servants Wages; *Item*, for his own time; *Item*, a Reasonable profit from the prime cost, as every Tradesman expects.

The Doctor asks, "Why the Ladies do
"not entertain their Visitants with the Sim-
"ple Waters, and the Gentlemen pass their
"time with the Compound Waters instead
"of

“ of Punch, the agreeable Reception in the
“ Visits at Land, as well as at Sea.

The Ladies have more Wit than to drink the Simple Waters, and the Gentlemen too, when they can get Mr. *Phillips's* admirable Compound Waters; which, if the Doctor be a stranger to, I will advise him to tast, then tell me if he has not made every Simple confess their Vertues in all the Waters he shall examine from his Shop. I fear our Gentlemen at the Chocolate-houses do themselves harm, by sipping too often of those kind of Waters, as Orange, Saffron-Water, and the like.

From hence, after the Doctor has gone thro' with a long Ramble of the Importunate early visits in the Morning, of the Honest Physician, and the Crafty Physician, that Copies after the Mountebank, then of the Apothecary that gets one or two Guineas by the day, in the Profit of his Doses, and of the profound Ignorance of some who in their Consultations have remarkt, with surprise, the most common and known use of the Parts, of the Readers and makers of Verses in the Coaches, and such as entertain the Company with News, and such like Trumpery as this, he proceeds to a Panygrical description of the Dispensary.

“ The

“ The Subscribers to it, are that part of
“ the College which have not bowed the
“ Knee to Baal, or cou’d be debauch’d from
“ their duty to the Publick and their Pro-
“ fession, to justify the Empiricks Practice,
“ with the Zeal necessary to make the Pa-
“ tient consult him in all Subsequent Illnesses,
“ prescribe the exorbitant Numbers of Me-
“ dicines in the little Doses, to merit the
“ next opportunity of giving the Compositi-
“ ons the quicker vent.

Here’s a Character the Doctor thinks suffi-
cient to merit Heaven, if he cou’d but make
it out for Truth; but I fear there will be
many of his Catalogue of Subscribers found
Delinquents, when they shall come to be ex-
amin’d into. And tho’ they may not justify
the Empiricks Practice, as he calls it, I fear
they justify some others as bad; a particular
instance of which I will give you, but shall
be tender of the Gentleman’s Name, because
I think he is an honest Man, and might possi-
bly be abus’d in it.

A Woman labouring under a Cancer in
her Womb, her Husband imploy’d a Quack-
ing sort of a fellow about the Town, who
however had so much honesty in him, that
he wou’d not undertake this Woman to make
a Cure of her, but told her, he only under-
stood

stood a few Medicines, which he wou'd try if she pleas'd, and if those fail'd he wou'd then desist. But, after some tryal of his Medicines, the Woman receiv'd some Relief, upon which they retain'd a strong Opinion of him, and nothing wou'd serve without his constant attendance once or twice a day, for Six or Seven Months together, with the use of many Medicines, when after all the Patient was much in the same condition as at first; so the Husband thinking this course wou'd at last prove too chargeable for his Pocket, discharges his *Medicaster*, and tells him, he was inform'd by some honest Members of the Dispensary College that he deserv'd not a Farthing for his pains; and afterwards, to support themselves against this poor Ignorant, Pretender, sends for this Collegiate, and inform'd him the Patient was only troubl'd with the *Colick*, and such a one had had her under Cure for so long a time, without doing any good. Our Subscriber writes a Bill to the Dispensary, and by this single Bill Cures her, as pretended. The Quack, he brings his Action at Law for the sum of Eleven Pound for all his Physick, and above One Hundred Visits. Afterwards it comes to a Tryal, and the Dispensary Doctor Swears point blank he cur'd the said Patient for four Shillings charge at the Dispensary, after the other had attended her Seven Months, (which was by the Patients

L

much

much Perswasion,) so the Jury gave the Poor Man nothing for his Labour, and the College came off with flying Colours, that one of their Members had done such a piece of Service to the Publick, as tended to the suppressing of Quacks, and by a perfect Cure of the Patient, tho' now she lies under a worse condition than ever, from the same grievance of a Cancer in the Womb, which is her present case.

“ They have concluded, that there is this
 “ only Method to preserve the Lives of the
 “ People, and prevent the Infamy of the Fa-
 “ culty.

You see what a strange Opinion they have of themselves, and what an implicit Faith they wou'd have others have of them, that there is no other Method to save Peoples Lives; tho' they find themselves every day baffled by common cases, that seldom or never fail to be reliev'd by those other Physicians whom he calls the Medical Hero's of the Age. For 'tis not talking of Physick, and the Methods of Cure, that relieves the Patient, but the true knowledge of the Disease, and the proper application, whether it be *B bezoar*, *Pearl*, the *Cordial Boles*, *Draughts* and *Juleps*, or the Doctor's simple *Tinctures* and *Decoctions*; What matters which of these Forms or Medicines be made use of, if the Patient be but cured, *Cito, tuto,*

tuto, & Jucunde? But he will say then again, those are Consumptive Methods of Writing, and the Apothecary will certainly bring in a long Bill at the end. What is the difference to the Patient, whether the Apothecary bring in a long Bill or the Doctor? For he is sure to be fleec'd by one or the other, according to the Method lately observ'd by some of the Dispensary Subscribers. But won't you believe him, when he tells you for that reason they have lay'd before the People the low Prices of Medicines, and the just Proportions to be requir'd in every Distemper, both which are to be observ'd from their Practice.

No certainly, I have Reason to the contrary, when the City Merchant, who was their very good Friend, and had such an Opinion of their Integrity, was us'd so scurvily, and they made him pay for his Credulity; but perhaps it might be with a salvo, that by that means they might use the Poor the better; that is, learn by degrees to make large Bills to them, when they cou'd at any time discover that they were able to pay for them.

The Doctor has really got an admirable Canting stile, that wou'd wheedle a Man out of his Money with a sort of pleasing Violence, "If therefore, says he, the view of the Pro-

" mis'd Land will please you in Prospect, you
 " may consider, that the Poor will have the
 " Remedies given by you or us, or paid for
 " by themselves : Else I don't know which
 way they shou'd come by 'em, without there
 are some sort of Aerial Spirits in this Fairy
 Promis'd Land, that are to assist them. Well,
 but what is it that makes this Promis'd Land
 so Beautiful ? Why the Reformation of the
 corrupt Practice of Physick by the Dispensary,
 not the Reformation of Manners, which they
 had more need to set about, tho' perhaps
 they are as incapable of Effecting the one as
 the other.

" It will come into Practice, he says, to
 " distinguish the Fee for the Attendances, from
 " the known Rates of the Doses, or it will
 " be requir'd of the Customer for his more
 " exact Information. This was fairly stated,
 " as a Precedent In this case, by an Apothe-
 " cary the other day, who made a reasonable
 " demand of Five Shillings for two Penny-
 " Boles of *Venice Treacle*, as he rated it in the
 " Note, because he was oblig'd to bring them
 " himself.

And there is very good reason there shou'd
 be a distinction made, which will be much to
 the advantage of the Apothecary, for, as it
 is at present, he is oblig'd by the Patient to
 wait of them from one end of the Town to
 the

the other, sometimes two or three times a day; which oftentimes they consider not, but think he gets sufficiently by his Medicines to afford it; now if the Apothecary did not consider this as well as they, he might be soon confin'd to his Shop, and cou'd not stay there long neither; therefore Half a Crown, for what he calls a Penny Bole, is sometimes dear enough earn'd, when the Apothecary is oblig'd to give attendance, and perhaps gets not his Bill paid off Seven years after, and now and then is glad to compound for half, or any part, to save himself. Therefore that is plainly none of the Apothecaries fault to set down the price for his pains, but the Patient, who when they have not Servants of their own, may imploy a Porter at a cheaper rate sure then they wou'd pay an Apothecary. But if the Doctor can satisfy the World so as to dispence with his proposals of being serv'd without the use of Apothecaries, I have nothing to object as to that particular.

But I find it is not his Opinion to destroy the use of Apothecaries, but the ways by which they live, for if they will be content to starve, they shall have the honour to be imploy'd by the Dispensary Physicians, who will send their Prescripts to them, "When they
"are not apprehensive, that the small number
"of Doses shall be condemn'd or ridicul'd;
"and that their Opinion of the Distemper

“ may not be contradicted, and the Patient
“ affrighted, by the unfortunate chance of the
“ Apothecaries not falling into the very same
“ Sentiment and Judgment of the Case.

What a poor pretence is here, that any Men, who ware not conscious to themselves of their own Insufficiency and Ignorance in Practice, shou'd fear the Censure of an Apothecary, or his Judgment contradicting that of a Dispensary Physician's. Such a little Animal as an Apothecary, one wou'd think, shou'd be below their regard, or at least they might frame a better excuse, if prejudice did not carry them beyond their byas: And they find the World flights and neglects them for being so impertinently busy about a matter that lyes upon them to consider and judge of, whether they find themselves ill us'd or oppress'd by the Treatment of the Apothecary, and those Physicians whom the Doctor Brands with the Titles of Betrayers of the Profession, and Confederates with the Apothecaries.

It must be granted, I believe, that they perceive the business of Practice, is, in a great measure, call'd out of their hands; and so they fancy the People do not apply themselves to Physicians, to prevent the sudden accidents of *Apoplexes*, and the like; because, as they pretend, they fear the ill Treatment of the Apothecaries. But this plainly appears

pears to be nothing but Malice, from want of that imploy they expect, and think they deserve themselves.

“ For it is impossible to appoint a Medicine in the Morning, which may not be destructive in the Night, upon the sudden changes of the Motions of the Disease, which then discovers it self, but cou’d not be foreseen in the calm, during the Morning Observations.

This is a very positive assertion of the Doctor, but how he came to be inform’d so exactly, that the Night is the only proper time when the Disease changes its motion, seems to me very strange and odd ; since it is his Opinion that all the Modes of Natures Actions are above our Senses and Understandings, beside common Observation informs us in *Tertian Agues*, and other *Intermitting Fevers*, the Paroxisms are most frequently in the Day time ; but this is levell’d at some Physicians whose Reputations are above his reach to hurt, and by this piece of Policy of his to direct the Patient to demand the Physicians attendance in the Evening, he might see whether he continued sober all the day or no ; and then hinder the sad Effects that often happen by sending the Prescription from the Bottle, as a Dispensary Member did not long ago, and when he was sober came to

the Apothecaries Shop, and beg'd to have it deliver'd off from the File, hoping it was not made up as directed, which the Apothecary assur'd him he had not done, but withal told him, that he wou'd conceal his Name, and the Errors of his Prescription; but he was prevail'd upon to tell the Circumstances for the use of the Dispensary College, and this is one of those Bills which, as the Doctor says, is hudled up with much Writing and little Thought. So that you may be sure he took not much time to consult the difficulty of the Distemper, to hear the Report from the Sick, and observe every appearance of Moment necessary either to save or destroy Life, when he had not so much thought about him as to write a Bill either with Words or Characters of any meaning, but a confus'd senseless jargon of Letters uncompoundd. But I think it now high time to conclude with this Reflection, That most Persons are very well assur'd of the Ability and Sincerity of those Physicians who refuse to joyn in a Combination with the Dispensary College, who, endeavouring to promote a meer Self-Interested Project, and private Monopoly, have basely betray'd the Honour and truest Interest of the Profession, to those who will despise both it and them.

T H E
Appendix

*In a LETTER to the
Learned Sir JOHN
FLOYER, about the
further use of Cold Baths.*

S I R,

I Read over your late Essay to prove Cold Bathing both safe and useful, with all the Pleasure and Satisfaction imaginable. I was convinc'd long ago of the great advantages that might be expected by the Introduction, or rather Reviving, of the use of Cold Baths into the Practice of Physick: But have met with great opposition, not only from
Patients,

Patients, who are hardly perswaded to such a severe Practice; but likewise from many Physicians in this Town, who oppose it with all the force that *Theory* and *Hypothesis* can invent and produce, against plain Experience and Demonstration to the contrary. I was glad to find so great a Mans Opinion squar'd so exactly with those Sentiments I had already retain'd of Cold Bathing, which I had the justest reason in the World to embrace, as you will be inform'd in the following account; and I cannot forbear taking notice, after the same manner, of that probable account you give, which certainly agrees with good Reason, why the use of Cold Baths have been neglected for near Two Centuries together, especially since the Reformation, and the Invocation of Saints has been disus'd, the generality of our Cold Baths in *England* being Dedicated to some Saint or other, the Reputation of the Water declin'd with that of the Saint; but still the Superstition of washing in those Waters remains in the North of *England* to this day.

Nothing

Nothing is more common amongst them now then to reserve Bathing till the Saints Day, which the Well takes its Name from, as *St. Catherine's* near *Doncaster*, our *Lady's Well* near *York*, and several others, where they constantly observe the Custom of leaving something behind them, if it be but the value of a Pin, by which means they suppose they leave the Disease behind them too. Which Custom probably was deriv'd from the frequent attendance of the Monks at those Places, when it was customary in those times to beg the Charity of the Rich that came there for Relief, that they might Pray to the Saint for the quicker Recovery of their Healths, as is usual at this time in several places of *France* and elsewhere. So that undoubtedly the disuse of Cold Baths came from the discredit of their Saints of later times, together with the Luxury and delicacy of the present Age, which may be attributed, in a great measure, to the Modern use of the hot Regimen, which as you have justly observed has increas'd with the Interest of Foreign Trade, which has introduc'd

produc'd Tobacco, Tea, and Coffee, with all the Brandy, Spirits, and Spices. And the Reason of all our Rheumatisms, Defluxions, Intermittent Fevers, &c. are chiefly owing to the late Practice of Drinking hot Liquors, and the pernicious wearing of Flannel and Woollen Shirts next to the Skin, which always keep the Pores too open for the Climate we live in.

As to the Authorities you have produc'd in vindication of the Antient use and benefit of Cold Bathing, I think they will admit of no dispute, But I shou'd think the constant successful Practice of the Common People of the North of *England*, at this day, to Bath in Cold Waters, during the whole Season of Summer, is a sufficient and Living Authority for any Physician to lay a foundation for a general Practice.

As your Elaborate Essay has prevented me from entering into Enquiries about the Antiquity and first Introduction of them amongst the Antients, so my own knowledge and observation has prevented me from entering into Disputes, whether

or no Cold Baths are really necessary and useful in the Practice of Physick.

Give me leave then Sir to present you with an account of what I have observ'd my self from the use of Cold Bathing as well in the North of *England*, as in this Town.

When I was a Child I got a Misfortune which I never cou'd give a perfect account of to any about me at that time, so that it was Pass'd by as a common Sprain in my Hip, upon which I wore a Plaster for some Years, but growing up to Twelve or Fourteen Years of Age, Began to be very sensible of great Pains attended with a weakness upon the part, that I always walk'd as if one Leg was by some Inches Shorter than the other, I was very Subject to Spasms and contractions on that side by intervals that encreas'd upon me till I Frequently us'd washing in the River which I found in the Summer time always reliev'd me, and we having a Cold Spring near us, I as often frequented it till

till by the constant use of one and the other, I was perfectly free'd from all the Sciatica pains I had usually felt, and obtain'd the strength of that side as completely as the other; but am very sensible of the Pains now, when I Bath or Swim too immoderately: This advantage that I receiv'd implanted in me always a value and respect for Cold Bathing; so that after my return from the Universities, I built a Cold Bath, and a House adjoyning to it, in the place where I my self had formerly wash'd, near to which adjoyn'd an Excellent Mineral Spaw; into this I brought Seven Cold Springs near adjacent, and rising all upon the same Plat of Ground; the Spaw is call'd *Guiltwait-Spaw*, and is scituated near *Rotheram* in *Yorkshire*. The discovery of this Mineral-Water was in the year 1666. after which time it immediately gain'd a settled Reputation, for a good Chalibeate-Water. This with the rest of the Springs that supply this Bath, arise North East, in the middle of an ascending Hill, call'd *Bole-Hill*, on the Top of which you have a large and fruitful prospect. A little distance, of about 300

Paces

Paces on the south from our Bath, springs another very Cold Water, in which the Cattle delight much to refresh their Thirst, this is known by the name of *St. Gregory's Well*, and by what I have been credibly inform'd has been of great Antiquity and Famous for Washing of eyes, and Sore Legs, which the Country People are violently Tormented with all Summer long, by reason they burn their Shins before the fire in Wintertime. But this and the other Cold Mineral water never fails to cure these Shin Ulcers at Three or Four times washing.

I shall not attempt a tedious disquisition of the Nature of the several Waters brought into this Cold Bath, but only observe to you that this Spaw which is commonly call'd a Chalibeate Water, is a Vitriolick Water, which affords great plenty of *Oker*, which makes an excellent Balsam for fresh wounds, and here I cannot forbear relating to you a Strange Story of a Cure perform'd by this *Oker*, and the washing in the Spring. A certain poor Man of about Forty Years of Age, Travelling along the Road and being griev-
ed

ed with a Scal'd head from his Infancy, he was advised by some Living near the Spaw, to go and make use of the *Oker*, which Subsides plentifully at the Bottom of the Basin of this Well; the poor Man accordingly applied it, in form of a Cap, mixing it with some Clay that lay in the Current of the Water, and by this means, together with washing his head every day in the Spring, he was Perfectly cured; and not only so, but in a Short time after, he had a fresh head of Hair grew as White as a Childs of a Year old, tho' he never had any grew on his head before to his Remembrance.

I cannot pass by another remarkable cure perform'd by the *Oker*, together with washing in this Spring since I am discoursing on that head, and Observing you take Notice that the Pains of the Kings evil, and Cancer have not yet been tried.

A Certain Shoemaker in the Town of *Rotheram*, whom I knew very well : but cannot call his Name to my Remembrance at present, was Afflicted with

a Cancer in his Breast which was so corrosive, as to Spread it self over all the Intercoſtal Muscles and laid his Ribs bare to view ; after he had in vain try'd what Assistance the Country cou'd afford, he was advis'd by several Persons that had found Benefit by the Spaws, to go and wash constantly in the Water, and make use of the clay which is laid purposely in the Current of the Spring, to receive its vertue from that which Subsides upon it in its Passage. It was the Opinion of all that had any Judgment of the case, that this method wou'd kill him, but contrary to all expectation in the Space of one Summer he was perfectly cured, his Breast was heal'd up and his body in a good State of Health, and so he liv'd for some Years after, when he died in a short fit of Sickneſs, but of what Disease I have not been inform'd.

This is well known to all the Neighbourhood of that place, and wants not any Particular Testimony.

As I was ſaying, this is a Vitriolick-water endued with plenty of Oker, that in
M Winter

Winter time is more manifest, and discovers it self in the receptacle of the Spring, out of which I have gain'd several Lumps of Vitriol, tho' having Sunk into the Earth thereabouts I never found any thing of a Mineral Nature, save only among the loose Stones, some Marchasites which Glitter'd as if they contain'd in them some Mineral Particles; in other parts of the Country, Particulary in the North-riding of Yorkshire, from whence having something of this Nature which was very Ponderous brought me to explore: Enquiring from what depth in the earth it was got, they inform'd me that it was gather'd upon the Surface of the earth, and that the Sheep and other Cattel which fed upon the Pasture from whence this Mineral was brought, had their Teeth colour'd as Yellow as Gold, altho' they received no other damage.

The reason of this I think to be Consistentaneous to the account that Doctor *Woodward* has given us, after this manner, that the Ramous particles of some Sulphurous exhalations, being mixt with some

some such Metallick Pungent juices, and agitated with a Swift and violent motion, partly from the Subterranean heat, and partly from the ambient air Elevated into the Superficial or uppermost Strata, they being voluble and Lubricous, as well as fine and small, easily insinuate themselves into, and placidly distend, the Tubes and vessels of Vegetables into which they ascend with the Water, and by that Perpetuat motion incorporate themselves as part of the Nutrition of the Plant.

And we need not doubt of finding a sulphureous spirit in our Mineral-water, which Springs in a place and Country that so plentifully abounds with Coal, in Digging for which we seldom fail to meet with Marcasites, or Vitriol stones, tho' the Learned Doctor *Lister* seems to be of Opinion that there is no Vitriol existent in our *Acidule* or Mineral springs: more particularly says he, *ubi plurimum Ocre ibi omnino nihil Vitrioli*, notwithstanding he says that the Pyrites, he has frequently observ'd in a Vappid spirit in the the water, now all or most of these Pyrites

M 2

rites abound with Vitriol; but he doubts *Van Helmonts* Tryals of the Vitriol of Iron, which he says he hath heretofore distill'd from the *German Spaws* call'd *Pohont* and *Savenir*.

I wont pretend to know what Doctor *Lister* means by Mature Vitriol when he says: *Vitriolum maturum in aquis Nostris Medicatis raro aut nunquam reperitur*, but this I am sure of, that I can convince any man by his Eyes, that there is perfect Green Vitriol in several Mineral Springs, one of which I shall have occasion to mention, in the mean time the Ingenious Doctor *Leigh* says expressly he has found Perfect Green Vitriol in several of the *Acidulae*, which he has examin'd, particularly in a Fountain near *Haigh* in *Lancashire* he observ'd several *Vitrioline* particles joyn'd with those of sulphur.

I Never cou'd observe in this Mineral water, any alteration from the Different Temperatures of the season, but as it happens to others of this nature, that the Mineral tast appears to be much stronger in Rainy and Cloudy weather, than when
it

it is dry, and the Air serene; and the reason I take to be this, That whilst the Suns power is so great as to raise the Mineral Particles from out the Strata wherein they lay, and by the heat of the ambient Air, exhale or mount up those Mineral Effluvia into the Atmosphere, the Water drinks without any manifest tast of the Mineral ; but when the Power of the Sun is lessen'd, by the intevening of Clouds and Rain, and the Ambient Air cools in proportion to the remission of the Suns heat ; these Mineral Exhalations requiring a considerable degree to raise them, cannot mount up so fast, but are detain'd here by the refrigerating Air, there Stagnate, and are condens'd on the Surface of the Water ; for the former heat of the Ambient Air, being so much lessen'd in proportion to the succeeding change of Cold, it cou'd not bring up the Mineral Vapour as before, but is forc'd down upon the Water, which gives it that discerning tast of the Mineral.

In the next place I shall consider what Information we may gain of the Nature of this Spring, from the different Soils and

Glebes of Earth, thro' which it may be suppos'd to pass.

It is plainly manifest that there has been, and daily is, both *Coal* and *Iron-stone* got round about the Country where this Mineral Water ariseth. And it is commonly observ'd all o're the Neighbouring Parts, where they dig for *Coal*, they frequently meet with good quantity of *Iron-stone*; near to which, either in the Strata of *Marle*, *Stone*, *Sand*, or *Coal* it self, we find the *Pyrites*, frequently call'd *Marcasites*, but vulgarly in *English* *Vitriol-Stones*, some of which I have seen plentifully laden with many *Martial* Particles, tho' these *Stones* don't constantly abound with the same sort of Mineral Corpuscles, but are variously and confusedly intermix'd in the same sort of Matter; for sometimes they abound more with *Vitriol* than *Iron*, sometimes with neither of these, but wholly with *Sulphur*, (without which, in some measure, they are rarely found,) with *Alum*, with *Niter*, or any of these promiscuously. In some again we find none of these Minerals, in others all of these, according as they

they meet with diversities of Glebes in the Bowels of the Earth: For this Mineral and Metallick matter, as Doctor *Woodward* says, which lies loose and moveable in the Pores of the Earth, of which matter sometimes we see whole Strata compil'd of, being mov'd by the force and Current of the Rain-Water, which falls down upon the Surface of the Earth, pervading the Interstices of Sand, Gravel, or other matter, conveys the Mineral and Metallick Corpuscles into these Internals of the Strata. And here I will beg leave to relate the story of a *Coal Pit-Water*, a small distance from this place, which I had particular occasion to examine.

And by the way observe to you something further, in answer to what Doctor *Lister* affirms, that where there is great plenty of *Oker*, there is nothing of *Vitriol* to be found. Now I believe if the Doctor had taken notice of the quantity of *Oker* that always shows it self at the Sough or Drain of every *Coal-Mine*, he wou'd have been convinc'd that there is *Oker* enough in those Mines, which abound sufficiently with *Vitriol*, as I shall

demonstrate: And as the daily Labourers in those Mines can attest from their own experience, from the Damps which they often meet with, in those *Coal-Mines*, which arises from the Sulphur of the *Vitriol*, which is often very troublesome in some works, occasion'd by a Stagnation of that Vapour in these Subterraneous Vaults, for want of a due Commerce of the upper and inferiour Air, which an Air-Pit, or Vent, as they Term it, by giving this Vapour a due Ventilation, soon Cures.

First of all then, this *Coal-Mine* had no Drain or Level to carry off the Water, but it was forc't up by an Engine; so that during the continual drawing of the Water, it appear'd to be no ways different from common Spring-Water, by any Trials, save only that it wou'd not bear Soap, as the Washer-women call it, but curdled or broke, as they say, which was occasioned from the small acidulæ of the *Vitriol*, which was then almost inconsiderable, by reason that the Water had not long stagnated on the *Coal*; but when the Gin ceas'd to draw Water as usual, so that there was no more heaving, drawing, or
pumping

pumping of Water, but the Beds of *Coal* were all covered, and the Pit a considerable depth in Water, which rested upon it for some days, it wou'd produce other Phenomena than what it did before, and afford us good quantities of perfect *Vitriol*. For the Colliers positively assur'd me this *Coal* lay dry, and was not water'd otherways than by that which distill'd down the shaft of the Pit, as they Phrase it, and some Fathom distance from the Bottom, which frequent Apertures of these Springs is occasion'd by the breaches of the Strata in sinking these Mines.

Therefore the alteration of the Water was caus'd from its Stagnation upon the *Coal*, and was enough to convince ones Senses that there was *Vitriol* in this Water, both by Tasting, Seeing, and Smelling. I examin'd whether the residue of the Mineral, from the Evaporation of the Water, wou'd resist a dissolution in *Aqua Fortis*, or Spirit of *Niter*, and yet become easily dissolv'd in Spirit of *Salt* or *Vitriol*, and found it wou'd, for putting some of the Residue into a quantity of good Spirit of *Vitriol*, there happen'd an
Ebullition

Ebullition for some time together, afterwards shaking the Viol again, the Efferescence wou'd begin afresh, till the Spirits at last had dissolv'd all the *Vitrioline* or *Sulphureous* Particles, remaining in the fæces. After this I decanted the Spirits, and gently dried the Residue, which I found impair'd above a third part of the weight it had before this infusion, and wholly devoid of that nauseous *Vitriolick* Taste and pungency which it had before; and when I came to put this same Residue into fresh Spirits of *Vitriol*, it immediately precipitated to the bottom, without so much almost as muddying the Spirit, or causing any other further alteration; neither wou'd it ferment at all with Spirit of *Wine*, as it had done before in the tryal made with Spirit of *Vitriol*. So that by these examinations, I found this Water (as common with the Sough Water of other *Coal-Mines*) might not improperly be call'd a *Sulphureo-Vitrioline* Water.

And it seems to me plain, that what Mineral Taste, or other effects this Water had, was wholly owing to the acidulæ
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in the *Coal*; for before it had stagnated on the *Coal*, it afforded none of these *Phænomena* I have mentioned, but was only a sweet Spring, issuing out of those *Aper- tures* and breaches of the *Strata*, which I spoke of, devoid of all Mineral Corpuf- cles. From what has been observ'd on this head, the *Pyrites*, or rather our *En- glish Vitriol Stones*, may not so vainly be imagin'd to be the chief productive causes of many of our *Acidulæ*, or Mineral Springs; but more particularly of those which we commonly call *Ferruginous Martial*, or most improperly *Chalibeate*. For I think those kind of Waters (espe- cially ours at *Guilthwaite*, setting aside the *Oker*,) appear not so much to be im- pregnated with the Corporeal Substance, as with the Volatile Sulphureous Particles of the Mineral. And tho' Doctor *Lister's* Vegetating Spirit may be call'd in questi- on, yet I shall readily agree with him that Mineral Waters of this Nature, when expos'd long open to the Air, and carried any distance from the Fountains Head, soon loose their vertual Faculties, become insipid, and cease any longer to strike a Tincture with Galls as usual.

I shall give you my thoughts as short as may be of the Origine of our Mineral Spaw, and then what I have Observ'd from it and other Cold Springs, in those parts or else where : It being more then probable conjecture that there are Iron Marcasites Lodg'd in the Strata thro' which this Medicinal-water passes, all of which are known to abound in some Measure with Sulphur as Mr. Boyl affirms, and as I have Frequently experimented ; this water therefore as all other Mineral waters are (for as I remember a good Author says, *Basis unica et ab olua origo omnium Aciditatum Mineralium est a Spritu Sulphuris Acido*) being actuated with a Sulphureous acidity, and passing Swiftly through the Strata, wherein are laid such Mineral Corpuscles, as are educed thence, and by the waters incessantly pervading those Strata, corrodes lightly the more Tenuous and aerial particles of the Mineral resolving them, so, as the Water imbibes in a manner, only the Volatile Atoms, with which it becomes thus saturated : for this fluid by its continual Attrition as it passes

successively

Successively by the Strata, Frets the said Mineral Bodies, by little and little wearing off their Constituent Corpuscles, till at length it has quite dissolv'd and destroy'd their fine and Minute texture.

Hence it is easie to conceive that if this Mineral-water be Impregnated with such a Volatile and subtil Spirit, that it may soon loose its vertue by the avolation of its most Fugitive parts, when it is removed to any distance from the Fountains head; and Since I find Mr. *Boyl*, and Several other Authors take notice, that they have rarely or never met with any Salts in our *English* Mineral-waters, that have been either manifestly Acid, or evidently Alkalifate, I think the following Tryal on our Spaw-waters may not be unworthy your Observation.

The first was made with a Strong Impregnation of Galls which turn'd the water, of a most excellent Purple Colour, to this Tincture I added of the sal Mirabile *Glauberi*, which made the Water Break or Curdle, and turn Something Blackish, to which put any acid Spirit
and

and it wou'd clear up and become pure as Rock water, which proceeds from the Acid penetrating the Alkali Salt, which dissolves the Curdled matter, and renders it Transparent as ever.

I likewise put of the *Vitriol*, or Salt of *Iron*, into Some of this Impregnated-water, which, as I remember, with Syrup of Violets produc'd a Green Colour'd Tincture, tho' a clear Solution of this *Vitriol* in common Water wou'd not turn Green with Syrup of Violets, notwithstanding it wou'd strike a Tincture with Galls, nor wou'd this *Spaw* water it self become Green, but when these two were conjoyn'd together they readily Produc'd the aforementioned effect; after this I try'd a solution of that in Fountain water which was scarcely discernable, only that it was Something more nauseous of the *Vitriol*, but wou'd with the addition of Galls Strike the Water with a purplish, tho' more inclinable to a Dark Blewish Colour.

The Multitudes of common people that resort to all our Cold Springs in the North

North during the Summer Season, wou'd convince any Indifferent person, (that did not make particular Observations of the remarkable cures perform'd by them) that there was Something more then ordinary in such a constant use and practice of Bathing, which is look'd upon as a great hardship and extremity by many, if there was not some considerable use and Advantage to be reapt from such Customs, as some are Pleas'd to call Barbarous and Cruel, but it must be confest'd the Vulgar are not wont to Flatter themselves, with the hopes of being cured there where they do not receive present Reliefe; but on the Contrary they presently forsake whatever is Propos'd to them, if it do not answer their expectations at First, and they receive a real Benefit and advantage from it.

Therefore the Continuance in the use of Cold Baths, is a certain Conclusion that they are Serviceable to them, upon almost all Occasions, and not only that they are so usefull and Beneficial to those that Frequently make use of them, but there is another thing very considerable, that

that is, that few, or none ever receive any Inconvenience, or Misfortune : and what is well worth Observation, from the constant Custom amongst the Generality of People, to wash in their Shirts, and Smocks, and Dress themselves afterwards upon their wet Linnen, I never yet Heard of one that receiv'd any Damage from that Custom, and I may Modestly affirm I have seen some Hundreds wash in one day, at St. Catherines Well near *Doncaster* ; besides I know it constantly Practic'd at this spaw of ours at *Guilthwaite* : and it is as Customary a thing amongst those that wash sheep, to continue on their wet Cloaths all day, and such as use themselves Frequently in the beginning of *April*, to go into the Rivers, and in the Coldest days of that Month, sometimes stay Three or Four hours together in driving of Fish with long Poles into stand Nets, by reason those Rivers are too full of Wood to draw, have assured me, many of 'em from Thirty or Forty Years experience, that they were less Subject to catch any inconvenience of Cold, when they kept on their wet Cloaths, than when they Shifted themselves

selves to dry ones. And I have often observ'd when a School-boy, that by wading in the Snow, or the Ice, whole days together, I never was sensible of any Damage, but afterwards when I thought myself wiser, and being wet of my feet by Snow, or otherways, I endeavour'd to prevent the Danger of Cold by Shifting of Shoes, and Stockings, and drying my feet, I Seldom or never fail'd to catch what I thus Studied to avoid.

I remember I had a Story told me of a Tennant of the Earl of *Rutlands's*, who in *Christmas* time, having been entertian'd at his Lords, in the *Peak* of *Darbyshire*, was made very Drunk, and in his Passage home, fell into a Drift of Snow, where he lay Two or Tree, days during which time the weather chang'd, and the Snow was Dissolv'd, when one of my Lords Servants, being abroad, found our Peaker laid as one Actually dead, only that he look'd, as they told me, like Beef, laid some days in Brine; he carried him to his Lords house, where one of the Grooms, who knowing him more Particularly than the rest, was much concer'd for him,

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and

and thinking there might be some hopes of Life, laid him in a Fresh bed of Horfe-litter which he had not yet Thrown out of the Stable, and in a few hours time he came to himself, and made no more Complaints of his Lodging, than if he had lain in the best Down Bed in the World.

But to return to our Cold Bath, I believe there is not a more effectual remedy in Nature, for the Cure of *Leprosie, Itch, Scabs, Sores, Ulcers, Tettars*, and all other extraneous Vices, and Sordid Impurities of the Skin; nay I have seen it Actually releive the Intemperate heat of the *Liver, Rains and Viscera*; I have seen great quantities of *Worms* voided both from the Internal, and External use of this Water: I have seen the *Jaundice, Dropsie, Gout, Scurvy, and Rheumatism* Perfectly cured. That they certainly assist, and further Conception, educe and bring forth all the fordid Exculerines from the Ureters, and Urinary Passages, Mitigate the Strangury, and remove a Suppression of Urine; I can Produce many Hundred Vouchers; and in Hypochondriack Melancholies, we have not any Methods of Physick, to vie with
Cold

Cold Bathing, besides that it Strenuously creates an Appetite, Strengthens and comforts weak and Flatulent Stomachs, and Quenches a Morbid Thirstiness, every bodys Experience, that hath made tryal, will evince, and I have Sufficiently seen them Serviceable in Tertian Agues and all intermitting Fevers.

Serveral Tertian Agues, I have seen perfectly cured upon Three or Four times Washing, when all other Methods have fail'd, after they have endur'd Twenty, Thirty, and Sometimes Fifty and Sixty Fits.

Nothing is more Frequent than to bring little Children, let their disease be what it will, from a Month or Two's Age to a Twelve Month, but more Particularly In the case of Rickets and Convulsions.

Further I have known this Cold Bath Singularly usefull in the *Astma* and other Stoppages, and Difficulties of Breathing; a very Prevalent Remedy in many sorts of Consumptions, in a Consumption from

Apostems, in a Consumption from a Diabetes, in a Consumption from a Dropsy, in a Consumption from a Gonorrhea, in a Consumption from the Gout, in a Consumption from the Green-sickness, in a Scorbutil Consumption, in a Scrophulous Consumption, in a Consumption from Sweats, in a Consumption from internal Ulcers.

The Clay of this Spaw cleanses, mollifies, and discusses all kinds of Tumours, heals old running Ulcers, with the most Virulent and corroding Cancers, an Eminent Instance of which you have in the preceding Sheets.

And Dr. *Baynard* informs me that the Mud taken out of the hot Baths, and mix'd with any Astringent Earth, will cure Scal'd Heads, Leprosies, or any other Cutaneous Vices : And here I shou'd be ungrateful if I did not pay my acknowledgements to that worthy and Learned Physician, for the quick Recovery of my Health from a fit of Sickness which I had in *May 1700.* when having prejudiced my self with too violent Sweating Medicines,

cines, which reduc'd me to a very sensible weakness, notwithstanding which, the strength of my Fever abated not at all, but a continu'd pain and weight lay so heavy in my Head, I fear'd a Delirium might ensue; and therefore that Evening I had design'd to apply a Blister, but the Doctor prevented me, by advising me immediately to shift my self and put on clean Linnen, rise out of my Bed, and that Night to drink plentifully of *White-wine*, *Spring-water*, and the juice of *Lemons*, all which I observ'd, and found my self next Morning mightily refresh'd, so that in a few days after I was able to go abroad: This Cold Regimen so sensibly affected me, that the Summer following, having occasion to be in *France*, in the Month of *June*, which was very hot that year, I was seiz'd much after the same manner, but more suddenly, and attended with a violent Looseness, that I was every Moment fainting away with Colligative Sweats, which continued so excessive for Fourteen or Sixteen Hours together, that I expected nothing but Death; however I was resolv'd to be abroad in the Air, and accordingly order'd

my Servant to hire me a *Remise*, to drive me up to *Meudon*, the *Dauphine's* House, which he did, and I found my self much reliev'd by the advantage of the Air, it standing very high above the Town. I was so refresh'd that I order'd the Coachman to drive down the Hill to *St. Clou*, the Duke of *Orleans* Seat, that I might refresh my self in those delightful Gardens, but I had no sooner given directions, but a fainting fit came upon me, and I fell down in the Coach, upon which my Servant and the Coachman, thinking I had been dead, laid me upon the Grass, and in some short time I recover'd my Senses, and he drove me down to *St. Clou*, when I came there I got a Flask of *Champaigne-Wine*, some good *Fountain-Water*, and with juice of Lemons, *Nutmeg*, and *Sugar*, made a Mixture, which was so grateful I drank it all off, and was so invigorated, that I walk'd into the Gardens, set down by a Fountain for near an hours time, and then return'd to *Paris*, and by the way I wash'd in the *River Seine*, about a quarter of an hour, and from that moment have been in perfect Health to this day.

At

At *Sheffield*, within four Miles of our spaws at *Guilthwait*, we have many Paralytick Cases, that every summer make their application to these or other Cold Springs which are near them; from whence many that have been lam'd by working in Mineral Fumes, have been reliev'd by this custom of Bathing. It is very remarkable in that Town to observe, that there is scarce a Family that are Hard-ware Mechanicks (as they call 'em,) that is *Cutlers*, *Scith-Smiths*, *Button-makers*, and the like, but you shall find one or more deform'd, either Crook-back'd, Crook leg'd, or some other deformity; which they gain, some by constant sitting when young, others by working in the Fumes of Minerals, but most by grinding. These many disasters furnishes us daily with variety of Cures, which I have seen perform'd after a strange unaccountable manner, from the use of these Cold Baths.

A few Instances of which I shall relate for further Satisfaction. *Sim. Shore*, a young Boy of about Twelve or Fourteen

years of Age, was put Apprentice to a *Button-maker* of *Sheffield*, but in a short time a weakness seiz'd upon his Limbs to that degree, that he entirely lost the use of his Legs; I applied several things to him, but with little success, then I order'd him into our Cold Bath once a day, for the best part of one whole Summer, which had so good effect upon him, that he was able to walk from *Rotheram* to the Bath, (two long Miles) once a day, before the Summer was spent: But his weakness had so far prevail'd upon him before he came under my Cure, that his knees were distorted, and cou'd never be reduced to their former straitness, notwithstanding he was recover'd to a considerable strength in all his Limbs.

But I have known some that by the use of these Waters, have had their Limbs restored to their Natural Form, when before their Knees knock'd together as they walk'd: And it was common to observe those that came with Crutches at the beginning of the Summer, to go away without any help before the season was gone. There is one ill Custom that they

they will retain amongst them in Spite of your best advice to the Contrary, that is to Stay in these Waters, which are very cold for half an hour together Somtimes, and they will dip Young Children sometimes Nine or Thirteen times together; and rarely under Seven, or Five times, for they go all by odd Numbers, of which they reckon Seven the most Perfect, and Successfull; nothing is more common than for those that have Strain'd themselves by fore Labour in Mowing, during Hay time, and have had theit Limbs benum'd and almost useles by lying down in the Night Dews, to come Presently for Reliefe to these Waters, which rarely fails of assisting them in due time; and I have seen very Deplorable cases both for Lameness and Weakness throughout all their Limbs, so happily releiv'd during the Short season, betwixt Hay time and Harvest, that the Persons who have got those Misfortune in the First Season, have been in a Capacity to perform the Seveerest Labour of the Harvest.

Thomas

Thomas Duckinfield who was a Day Labourer of mine, belonging to the Farm wherein these Waters Spring, was seiz'd with Rheumatick pains throughout all his joynts, with a continual trouble and Heaviness about the Orifice of his Stomach, he was Pale and Languishing, and had Frequent fainting Fits, and was scarce able to move one Limb, which were Swell'd considerably : I took near Forty Ounces of Blood from him in Three days time, after which I purg'd him with the *Sal Solutivum*, *Cream of Tartar*, and our Mineral Spaw-water, in about Fifteen or Sixteen days time, I gain'd him the use of his Limbs, which was the sooner effected by the use of Blisters and Cupping, by which means I drew off great Quantities of Water from his Legs and Thighs, but Still he had a great Stiffness in his Joynts, and a Numbness in all his Limbs ; I then order'd him into the Cold Bath, and in Three weeks time he was able to do the duty of a Servant in Haruest Work. I remember many of the like almost desperate cases, which I was an Eye Witness to, but the Names of
the

the Persons, do not readily occur to my Memory. I had not time in the Writing this Appendix, to send down into the Country, nor for more Particulars, then what I here present you with had I room.

I was once very much Surpris'd to see a Poor man Strip, and Leap into this Bath, for really when he was Naked, he look'd more like a Fish than a Land Animal, for his Skin was all Scaly over from Head to Foot and had been so, he said, for many Years, which wou'd peel off, as he inform'd me, some times, but quickly return again, but this Monster, which he look'd more like than a man, was soon chang'd, for in less than a Week, as he wash'd himself, which was Four or Five times a day, he rub'd off his Scabs as you wou'd Scale a fish with a Knife, and so in Ten days time he return'd home, to all appearance with a Skin as clean and soft as an Infants in Comparison; I think he told me he liv'd in the *Peak of Darbyshire* and had been a Miner.

I find Doctor *Baynard* in Quoting *Harmannus Vander Heyden* says, he affirms it Cures Tooth-ack, Inflammation of the Eyes &c. I can affirm I have allay'd the Pain of the Tooth-ack Twenty times, and more, by Striping and Leaping into the River, where I usually Stay'd about half an hour, and I have known many Boys do the like, and when they had the Ague fit upon them, have entirely Frighted it away, as they call'd it; but certainly there is not a more effectual method for the cure of an Ague in Summer time than the washing in Cold Water, I will not take upon me to account for all the Strange and almost contradictory Effects, these Baths produce in Morbid bodies; but I think Doctor *Baynard* has truly affirm'd the several Phænomena of Cold Baths, to be the effect of Concentration, Pressure and Contraction, I dare not take the Liberty at this time, to expatiate on this Subject, else I have a large Field before me to *Philosophise* in, but shall proceed with matter of Fact. I most Frequently advise Bathing, in the case of Jaun-

Jaundice, and find that the Stomach is Strengthen'd, the Appetite releiv'd, and that Faintness which Generally attends those who are subject to that disease, is prevented, and the usual Weakness of the Viscera is by this means supported; and the contracting of the Nerves and Fibers, which before were lost, recover their former tone and Elasticity, by the Concentration of the vital Flame.

John Pye of *Soutball* in *Middle-sex*, who had Labour'd under a Jaundice, along time found present relieve, by washing in a running brook, four or five times in the Month of *August*, his Strength much increas'd upon it, and the Natural tone of the parts restor'd, so that he was able to work all the summer, only he was subject to Fainting fits sometimes, which the Bathing soon overcame.

A Young Man in the Parish of *Rotheram* in *Yorkshire*, about 19 Years of age, being born of Melancholy Parents, but Naturally of a Strong Constitution, he was very Pale, and Labour'd under

a continual pain in his left Hypochondria, complain'd of a lassitude and weariness of his Limbs; and a Salt Humour wou'd often fall upon his Teeth and Jaws, so that it colour'd them almost black, his Gums were Subject to bleed by touching them, and his Teeth grew loose; he had taken such advice as that part of the Country wou'd afford, who pronounc'd him desperately gone in a Consumption. When he came to me, he appear'd in a very bad condition, he had a troublesome Palpitation of the Heart, which came by turns, a small, weak, and unequal Pulse, a difficult Respiration, a compression of the Breast, with a Cough, whereby he spit a great deal of Viscid black Phegm: I judg'd this case to be the height of the Scurvy, which is a Disease we often mistake in; 'tis the Physician's *Ultimum Refugium*, like the Philosopher's Occult qualities. However the success I had may justify the Mistake, if I made any.

I order'd Three Doses of *Quercetans Tartaris'd* Pills with *Ammoniacum*, over Night, and the Salts next Morning; he was let Blood Twice, both which times it was very fizy, which I think a good indication to repeat Phebotomy, in this, and in Rheumatick Cases, where, as long as the Blood remains fizy, I have always found it serviceable to the Patient. But this not answering to the purpose, with much entreaty, I prevail'd upon him to Bath in our Cold Bath; a first and second time he appear'd rather worse than before, but upon the third immersion, the alteration was so considerable for the better, that the Patient cou'd believe no other but it was a lightening, as he term'd it, before Death, but a perfect recovery first ensu'd, which was perform'd in a Fortnights time, as I take it.

Richard Wilson near *Rotheram*, was Cured of a Hypochondriack Melancholy, which he had been afflicted with some time; his case was thus, at first he observ'd almost a continual pain in his Head,

Head, with a swimming or Giddiness thereof; a noise in his Ears, a Rumbling in the Guts, and four troublesome Belchings, with heat and pain in both Hypochondria's; more particularly pain about the Region of his Stomach, and he was subject to Vomit upon every occasion: He was likewise attended with a strange Imagination, and a Trembling and fear upon his mind by Intervals.

I order'd him Two Doses of the *Cochy Pills* first, and to take a Dram of *Cream of Tartar* in *lenitive Electuary* for some days together, afterwards he drank the spaw Waters, and wash'd for the best part of the Summer, which so alter'd his Constitution that he never had a return of any of those troublesome Symptoms, which had perplex'd him so long before.

There are many instances that I have by me of Cures perform'd by these Wells, but this *Appendix* being only design'd as an acknowledgement to Sir *John Floyer*, I hope you will pardon me that I am so short

short in my Relations : Besides, I fear it may be too great an Imposition upon the Reader, it being so forreign to the design of the rest of the sheets contain'd in this Book ; however I shall intrude upon them this following Story.

Captain *Crepigney*, lately an Officer in the Guards, after a fit of Sickness, attended with an Intermitting Fever, was violently seiz'd with Spasms and Contractions in all his Limbs, but more particularly, with a Lameness in his Legs and Thighs, which was attended with such excessive pain as cannot be describ'd ; upon advice with me, I immediately order'd him the use of the Cold Baths, and went with him my self to Mr. *Bayn's* Cold Bath in *London*, where, as soon as he had Bath'd, which was about the space of Two Minutes, he found present relief from his pain, and not only so, but was able to walk from the Bath to *Grays-Inn*, tho' before he was scarce able to be held in a Coach, but cry'd out as a Woman in Travel all the way we went thither : He wash'd that Night and next Morning,

ing, and then went in a Colash to a Country House he had near *Enfeild*, where the Paroxisms in some days return'd, and he order'd his Servant to put him in a large Tub, and pump Water upon him, which encreas'd his pains, so that he was oblig'd to return to Town, and by Bathing once or twice more in Mr. *Bayn's* Cold Bath, he was totally recover'd.

Now, Sir, I shall add no more, but my hearty Thanks to you for that most Usefull and Learned Account, you, together with the Ingenious Dr. *Baynard*, has given the World of Cold Baths; which, that they may be as Eminent as I am sure they are Serviceable, is the sincere wish and desire of,

Sir,

Your Unknown,

but most Obedient Servant,

Joseph Browne

F I N I S.



