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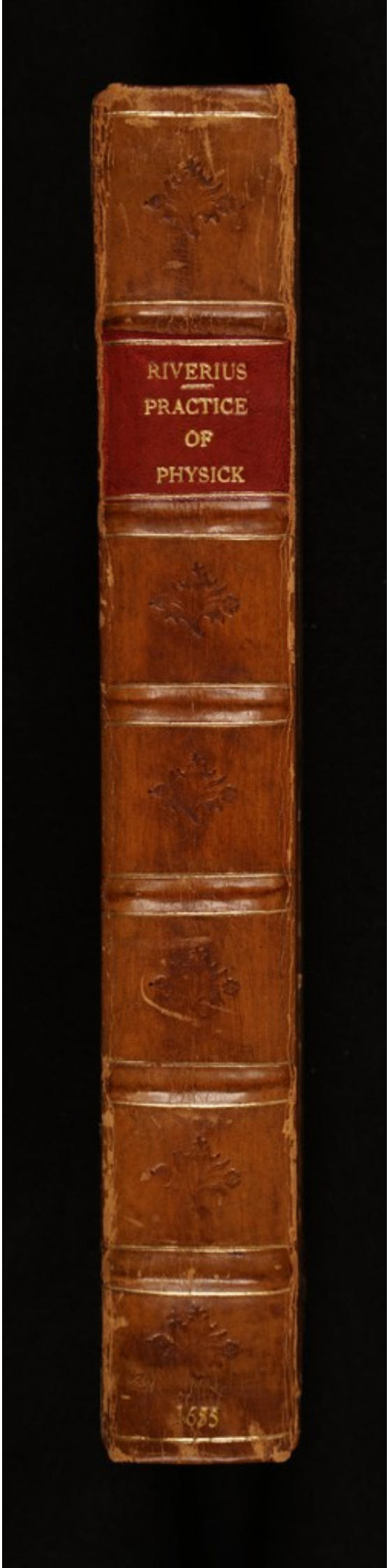
RIVERIUS
PRACTICE
OF
PHYSICK
1655







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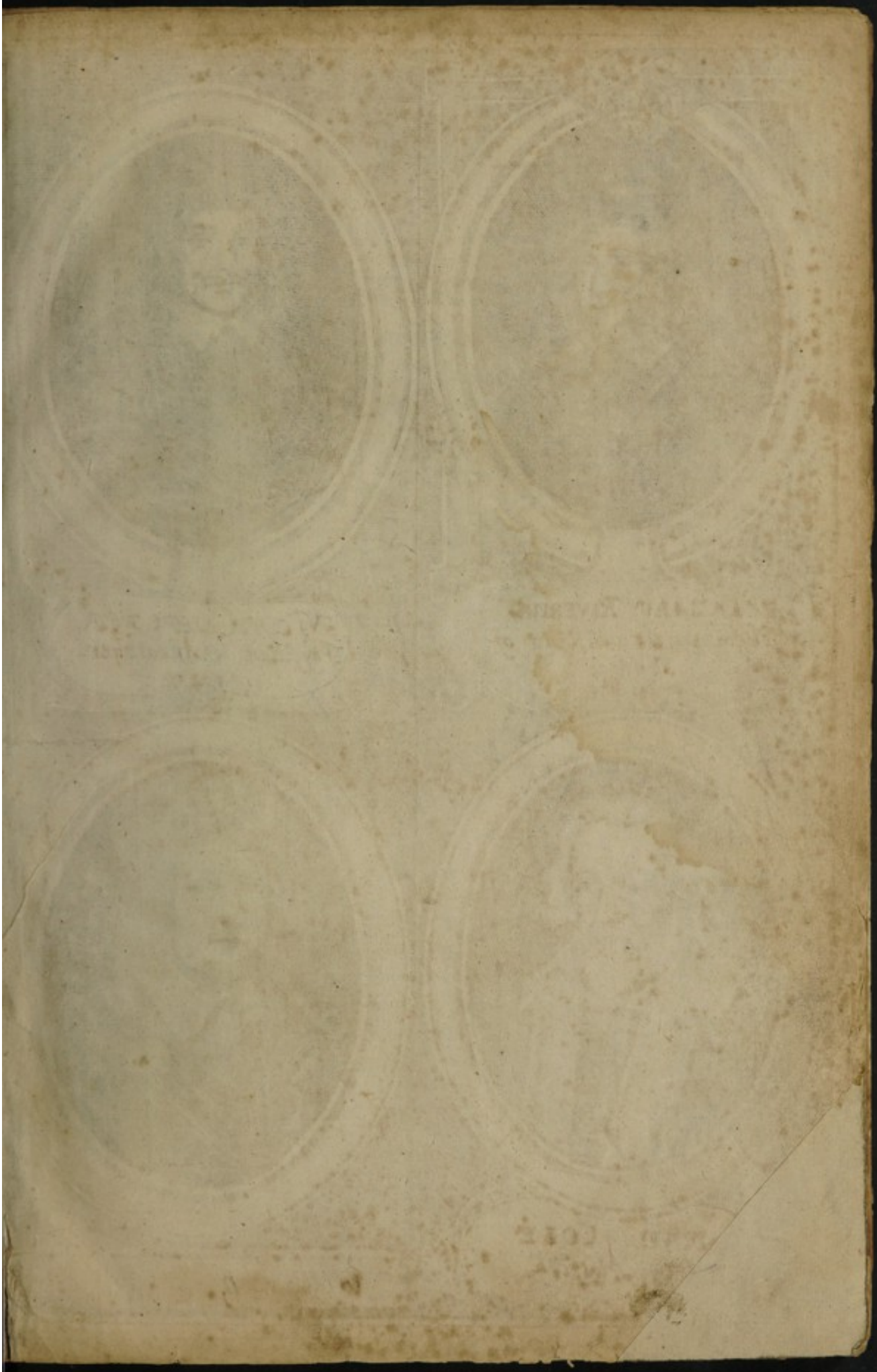
Practice
of
Physic

N. Culpeper, Phyſitian *and* Aſtrologer,
Abdiah Cole, Doctor of Phyſick,
And *William Rowland*, Phyſitian,

Their

Practice of Phyſick.





LAZARUS RIVERIUS
Physitian to the now King of
France



NICH. CULPEPER
Physitian & Astrologer



ABDIAH COLE
Dr. of Physick

Corss Fecit



William Bowland

43535.

THE Practice of Physick, IN Seventeen several Books.

Wherein is plainly set forth,
The Nature, Cause, Differences, *and Several Sorts of* Signs; *Together with the* Cure *of all Diseases in the Body of Man.*

By { *Nicholas Culpeper,* Physitian *and* Astrologer. *Abdiah Cole,* Doctor of Physick. And *William Rowland,* Physitian.

Being chiefly a Translation of

THE WORKS

OF THAT

Learned and Renowned Doctor,

LAZARUS RIVERIUS,

Now living:

Councellor and *Physitian* to the present *King* of *France.*

Above fifteen thousand of the said Books in Latin have been Sold in a very few Yeers, having been eight times printed, though all the former Impressions wanted the *Nature, Causes, Signs,* and *Differences* of the Diseases, and had only the Medicines for the *Cure* of them; as plainly appears by the Authors Epistle.

The Names of the seventeen Books of the Practice of Physick, *and the Principal Matters treated of in each of them, are printed in one sheet of Paper, and put before these Books.*

With these Books is bound a *Physical Dictionary*, explaining hard Words used in these Books, and others.

LONDON:
Printed by *Peter Cole* in *Leaden-Hall*, and are to be sold at his Shop, at the Sign of the Printing-press in Cornhil, neer the Royal Exchange. 1655.

WELLCOME INSTITUTE LIBRARY

THE PRINTER TO THE READER.

READER,

THY cheerful Acceptance of my former Endeavors in this kind for the Good of my Native Country, hath encouraged me, though with great Care, Labor, and Coſt, to preſent thee with the Learned, Judicious, and Worthily renowned *Riverius* his *Practice of Phyſick*. He is an Author now living, and ſufficiently known: And his Work will ſpeak for it ſelf, and praiſe him in the Gates.

And if thou ſhalt ſhew a Friendly Countenance to this worthy Stranger, who now ſpeaks Engliſh, I ſhall be thereby encouraged by all other means to ſtudy to promote thy Good by bringing thee more acquainted with this, and other excellent Authors.

And whereas ſome, either out of envy, or miſ-underſtanding, do condemn Works of this Nature, publiſhed in our Mother Tongue, alleadging chiefly, That ſuch Books encreaſe the number of Empericks; are a hinderance to learned and able Phyſitians; alſo occaſion ſome to hurt themſelves by raſhly practiſing on their own Bodies. I ſhall Anſwer to theſe Objections in order.

1ſt, as for Empericks: Theſe Books, and ſuch as theſe publiſhed in Engliſh, are ſo far from making more Empericks, that they will ſpoil thoſe that are, and make that we ſhall have fewer of them. For an Emperick being one that gives Phyſick (Hab Nab, as wee uſe to ſay) relying only on Experience, and what he hath ſeen done before him, not being able to give any reaſon touching the Diſeaſe, its Cauſe, or Cure: Theſe Books will teach ſuch perſons how to go upon good grounds, and to be able to give a ſolid Reaſon for what they do, and of Empericks, make them Rational Phyſitians, if they be men of good Natural Parts, though they be ignorant of all Tongues but their Mothers.

As for the hurt which is hereby pretended to be done to learned Phyſitians, it is a meer Imagination, and no learned Phyſitian that bethinks himſelf well, will ſo judg. For the uſe of theſe Books reſpects chiefly the Poor of this Nation, together with Sea-farers, and Soldiers. But for the Rich that have Money to ſpare, and bide at home, no otherwiſe (in point of practice) than for an honeſt Curioſity; and delightful Speculation. What rich man is there ſo mad, who reading a Chapter in theſe Books, and ſeeing what a world of Conſiderations and Cautions do belong to the knowledg and orderly Cure of every Diſeaſe, but will be more fearful than ever he was before to commit himſelf to the Cure of any but a learned Phyſitian. Now it is not by the Poor, but by the Rich, that the learned Phyſitian maintains himſelf; the poor are but a trouble to him, only before ſuch Books as theſe were extant in the Engliſh Tongue, Conſcience (ſomtime) forced the learned Phyſitian to take care of the poor, becauſe the unlearned were wholly unable: Whereas now there may be found Induſtrious men that know no more Languages than their Native one, who may in a rational way contribute to the Neceſſities of the Poor. Nay, theſe kind of Books are profitable to the learned Phyſitians; for many of the Gentry, eſpecially of the Ladies and Gentlewomen, viewing the ſtate of their own Bodies in ſuch Books as theſe (as in Looking-Glaſſes) will perceive certain Diſeaſes in themſelves, either now in being, or likely ere long to ſeize upon them, which otherwiſe they would never have ſo much as dream'd of; and thereupon crave the Advice and Aſſiſtance of the learned Phyſitian.

Alſo the Ladies and Gentlewomen being well read in ſuch Books as theſe, will better know how to demean themſelves towards their Huſbands, Children, or other Relations and Friends in their reſpective Sickneſs in point of ordering them, and will be more apprehenſive of the Phyſitians Directions, and ſo better able to practice them; alſo more capable of his Reaſons, and Prognoſticks, and ſo more confident and cheerfully obedient. All which wil very much advance the Cure, and conſequently the Honor and Gain of the learned Phyſitian: for as *Hippocrates* notes in his firſt Aphoriſm, *It is not enough towards the Cure that the Phyſitian do what is fitting; but the by-ſtanders and friends of the Sick muſt play their part, or all will not be well.*

And in the third place, Whereas it is objected, That people reading theſe Books, will practice upon themſelves and hurt themſelves.

I Anſwer, If they do, they have none to blame but their own folly; for it is not the intent of the Publiſhers of theſe Books, that every one that can read Engliſh, ſhould dare to take, of their own Heads, ſuch Medicines as are deſcribed in the ſaid Books. But our intent is, That where

in

in the Country there is no learned Physitian at hand; at Sea, in the States and Merchants Ship, where the Chyrurgion is compelled to act both his own, and the Physitians part; In Armies and Leguers, &c. an ingenious and diligent Chyrurgion, Apothecary, or any other that hath from his youth been exercised in these kind of studies, and conversant about the sick, may attain such a competent knowledg in the Causes and Methodical Cure of Diseases, as they may with honor to themselves, and profit to the sick (by Gods Blessing) supply the place of a more learned Physitian. For the use of such persons, these Books are intended, and for diligent Midwives; and not that every Fool should turn Physitian, or that every Reader should tamper with him or her self.

Also divers Honorable Ladies and Gentlewomen, that out of a truly Christian and Charitable Disposition have not disdained, but counted it a great Honor to be helpful to the poor in the time of their sickness, may by perusal of these Books, and the like, confirm and encrease their knowledg, and become honorable Instruments in the Hand of God, of much relief and comfort to many poor distressed Creatures in their respective Countries and places of Habitation. For the worthy sakes of which honorable Ladies and Gentlewomen in the first and chiefest place, and for the ease of all others unacquainted with the Greek and Latin Tongues, and consequently unable to understand divers terms of Art, and other words drawn from the said Tongues (which it was necessary to retain for brevity sake, and to avoid tedious Circumlocutions) I have caused a *Physical Dictionary* to be added at the end of these Books, explaining all such terms of Art aforesaid, as are used therein.

When the Reader meets in these Books, with the names of Simple or Compound Medicaments, and desires a more full knowledg of them, let him have recourse to the *London Dispensatory* in English, where he may be satisfied; for it had been an endless and vain work, to repeat what hath there been said. If there occur accidentally the name of any Disease which the Reader would better understand, let him look into the Table of the Contents of the Chapters of these seventeen Books, and he shall find the Chapter intituled from that Disease; in the beginning of which Chapter he shall find the said Disease described and explained.

Also the Reader may please to take notice, That many hard phrases in these Seventeen Books are explained in the Context, by more easie words following, which signifie the same with the foregoing hard word. As for example, MASTICATORIES, or *Chewing Medicines*, giving the Reader to understand, that *Masticatories*, is as much as to say,

Medicines

Medicines that are only chewed in the mouth to bring away Rhewm by ſpetting.

So GARGARISMS, that is, *Medicines to Gargle in the Throat*: A PLETHORICK, or *full Body*: EMPYEMA, or *Corrupt matter gathered between the Cheſt and Lungs*: HYPOCHONDRIA, or *Parts under the ſhort Ribs*: A VESICATORY, or *Plaiſter to draw Bliſters*. Many ſuch paſſages there are throughout theſe Books, where the latter Clauſe is an expoſition of the former.

And that thou maiſt know to whoſe great Induſtry and pains thou art obliged for the Engliſhing this moſt excellent piece of Art, know that (by reaſon of eight ſeveral Editions in Latin, of which there hath been fifteen thouſand Books ſold) it hath been three times tranſlated at my charge, By *Nicholas Culpeper*, Phyſitian and Aſtrologer; *Abdiah Cole*, Doctor in Phyſick, who hath practiſed Phyſick twenty nine Yeers in the Service of three of the greateſt Princes in Europe: and *William Rowland*, a Knowing Phyſitian: and alſo by an eminently learned and pious Phyſitian, who deſires not to be named, being (as he ſaies) content with the applauſe of his own Conſcience, which tels him that while he was imployed about this Work, he was doing that which would weigh down in profit to his Country, all the good that all the Phyſitians in *London* did or could do in the ſame time; a work that tends to profit many millions, not only of this Generation, but of all that ſhall follow, till the world become one great Bone-fire; or this Nation and Language periſh together. And it hath been (he ſaies) a long time his Opinion, That it is more rational, manly, generous, and Chriſtian, whilſt God ſhall pleaſe to afford him Food and Rayment, to imploy his time and pains in Actions largely conducing to the good of Man-kind, though little advancing his own Fortunes, than in matters of petty and poor Concernment, that bring great gain with them: In which generous Reſolution, God (the Author of it) will, he hopes preſerve him to his dying day; at which time the fruit and profit of his Labors will comfort him, but all the gain in the world will do him no good at all.

Uſe our Labors with Diligence, Care, Ingenuity, Compaſſion towards the ſick, and in the fear of God. Attribute the Succeſs and Honor of all thy Endeavors to him: Bleſs him for the *Light* he diſcovers to this Generation, denied to ſo many Millions of our Anceſtors: Bleſs him for the Piety and Noble Generoſity of our Governors, that give us leave to *Be* as *Good* as we *Will*, and to *Do* all the *Good* we *Can* (though ſeeming to croſs private Intereſt) Oh! what would we have given for this ſingle Priviledg a few Yeers ſince? Or what would the poor Proteſtants in *France* and *Germany* give for the like Favor? How many of them

them have been lately Massacred, or made fly from all that was neer and deer to them for want of such a Mercy as this?

Finally, Pray for those that have taken pains in the Work, and among the rest, for

Thy hearty Wel-wisher

From my Printing-house in *Leaden-Hall*, June, 2. 1655.

PETER COLE.

The Names of several Books Printed by Peter Cole *in Leaden-Hall*, London, *and are to be sold at his Shop at the sign of the Printing-press in Cornhil, neer the Exchange.*

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3 *Galen's* Art of *Physick*, with a large Comment.

4 The *English Physitian Enlarged*; being an *Astrologo-Physical* Discourse of the vulgar Herbs of this Nation; wherein is shewed how to cure a mans self of most Diseases incident to Mans Body, with such things as grow in *England*, and for three pence charge. Also in the same Book is shewed, 1 The time of gathering all Herbs, both Vulgarly and Astrologically. 2 The way of drying, and keeping them and their Juyces. 3 The way of making and keeping all manner of useful Compounds, made of those Herbs. The way of mixing the Medicines according to the Cause, and Mixture of the Disease, and the part of the Body afflicted.

5 The *Anatomy of the Body of Man*, Wherein is exactly described, the several parts of the Body of Man, illustrated with very many larger Brass Plates than ever was in English before.

6 A *New Method* both of studying and practising Physick.

7 A Treatise of the *Rickets*, being a Disease common to Children; wherein is shewed, 1 The Essence, 2 The Causes, 3 The Signs, 4 The Remedies of the Disease; Published in Latin by Dr. *Glisson*, Dr. *Bate*, and Dr. *Regemorter*, translated into English. And corrected by *N. Culpeper*.

8 The *Practice of Physick*, containing seventeen Books.

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3 *Gospel Conversation*, on *Phil.* 1. 17. Wherein is shewed, 1 That the Conversations of Beleevers must be above what could be by the Light of Nature, 2 Beyond those that lived under the Law, 3 And suitable to what Truths the Gospel holds forth. To which is added, *The Misery of those men that have their Portion in this Life only*, on *Psal.* 17. 14.

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King *Charls* his Case, or an Appeal to all Rational Men concerning his Tryal.
Mr. *Owens* Stedfastness of the Promises.
A Vindication of Free Grace; Endeavoring to prove, 1 That we are not elected as holy, but that we should be holy; and that Election is not of kinds, but persons. 2 That Christ did not by his Death intend to save all men, and touching those whom he intended to save, that he did not die for them only if they would beleeve, but that they might beleeve. 3 That we are not justified properly by our beleeving in Christ, but by our Christ, beleeving in. 4 That, that which differenceth one man from another, is not the improvement of a common ability restored through Christ to all men in general, but a principle of Grace wrought by the Spirit of God in the Elect. By *John Pawson.*

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3 *A Lifting up for the Cast-down*, in case of 1. Great sin. 2. Weakness of Grace. 3. Miscarriage of Duties. 4. Want of Assurance. 5. Affliction. 6. Temptation. 7. Dissertion. 8. Unserviceableness. 9. Discouragements from the Condition it self. Delivered in thirteen Sermons on *Psalm*, 42. 11.

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The

The Author to the Reader.

FIfteen Yeers ago (*Friendly Reader*) to Satisfie the Desires of my Auditors, I undertook to explain unto them the Methodicall Cure of all inward Diseases of the Body; which that I might accomplish the sooner, I medled not at all in a manner with the Theory, knowing ful well that any Student might with ease enough fetch the same from divers Authors: which notwithstanding they could not so easily do in point of Practice, because of the almost infinite Company & variety of Medicaments, wherewith the Books of those that have delivered the Practical part of Physick do swarm; with which Young Beginners are so confounded, that they remain amazed, not knowing which to choose. I conceived it would be most profitable for them, if out of such a multitude of Medicaments, I should select the most choice, and which were most frequently used, and dispose them into the same order which we are wont to observe in our Practice, when we attend the Cure of our sick Patients.

This Method of teaching, gave such content to our Students of Physick, that as many as came flocking to this University to study, after that I had finished the same, did all earnestly desire to have written Coppies thereof; and many of them did frequently exhort me, and earnestly Beg, that I would suffer it to be printed; and so for the future free all Men from the tedious Labor of writing it out. But I, who never had the thought (being very free from Self-Love) that my Writings were of so much worth, as to be published in Print, especially this Method of Practice, which was slipt from me as a thing only begun with rude Notes, hastily huddled up to perform my daily task of Reading, and half maimed for want of the Theoretick part: I thought it better to beleeve my own Conscience than their too favourable Opinion. I pondered likewise in my Mind, that it was a very hazardous thing, to subject my Reputation to the Judgment of the whol world, and (as it commonly falls out) to the biting Teeth of envious detractors; especially in this polished Age, abounding with neat and passing fine Witts, who are hardly pleased with such workes as have been wrought with the greatest Industry possible, and who are wont to peep curiously to spy spots in the shining Sun. Nevertheless this unperfect Birth of mine; which I desired to keep close and hidden, was sent into the wide world by one of my Schollers, who without my knowledg, and against my will, gave that imperfect, homely and unpolished work to a Printer of Pari s to print. And this Child of mine which I did count Abortive, was more pleasi ng and found greater Favour in the Eyes of Strangers, than in its Fathers; for all the Books of this first Edition, were suddainly sold off. A second Edition, a nd a little after a Third was procured by the same Printer, by which all Europe was filled with Copies. Nevertheless, some yeers after, there came out three other Editions within two yeers time, one at Lions, and two other in Holland: viz. erg

Tergow *and the* Hague. *In the mean while, I received very many Letters, out of the Chief Cities of* FRANCE, GERMANY, HOLLAND, *and* ITALY, *from Doctors of Physick, whom I was acquainted with, when they studied Physick in this University; seriously expostulating, that this Work was Lame because it wanted the Theory of the Diseases, and withall advising me that it would be worth my pains, to spend some part of my studies that way. Conceiving at length that it was fitting to consent unto their just requests, I laboured with all my might as far as my Employments and Health would give me leave, to finish and publish this Theoretick part; insomuch that at last (Blessed and Praised be God) I brought the same to a conclusion. Accept it (freindly Reader) with a cheerfull mind, being Joyned to the foresaid Practick part, so that in one continued Discourse thou maiest Behold the* Nature, Differences, Causes, Diagnostick, *and* Prognostick Signs, *together with the* Cure of all Diseases. *I Suppose this Child of mine will merit highly thy Favour, being now adorned in all its parts, and advanced to a far greater Degree of Perfection; and seeing that thou wert pleased with it in its Cradle and Swadling-Clouts; now that it is greater and hath attained its perfect Stature of Body, it will not, I hope, Displease thee. Enjoy it with Gods Blessing, and whatever thou shalt learn therefrom, let Christian Charity cause the to employ it for thee Good of thy Neighbour. Also I desire thee to take notice, that many faults were crept into the former Editions through the negligence of Printers, all which I have carefully corrected in this Edition. And furthermore, I have added many and those very Choice Medicaments, to the Cures formerly printed, which will not a little conduce to the happy cure of difficult Diseases. Farewel.*

From my Study at *Monpelier*,
the first of *July*, 1653.

Lazarus Riverius.

An EPIGRAM, shewing who are Doctors of Physick, and who not.

Doctors or *Teachers* they of *Physick* are
(Whether by Pen they do it, or in Chair
With lively Voyce) that teach the way to know
Mans Nature, *Health*, and *Sickness*, and do show
Diseases, *Cause*, and *Cure*. But they who spend
Their Life in *Visits*, and whose *Labors* end
In taking *Fees*, and giving *Paper-scrowls*
FACTORS of *Physick* are; and none but *Owls*
Do count such *Doctors*, that *no Latin* know,
From whence that *Name* did to our Language flow.

W. R. *Doctor and Factor*
Of Physick.

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THE FIRST BOOK OF THE PRACTICE OF PHYSICK.

Of the Diſeaſes of the Head.

The PREFACE.

IN *this our Treatiſe of Head-Diſeaſes, we ſpeak firſt only of thoſe which are in the ſubſtance of the Brain, and the Films which contain it: For although the Eyes, Ears, Tongue, Teeth, Gums, Jaws, and Pallat, go to the making up of the Head; yet we think it fit to ſpeak of their Diſeaſes in ſeveral Books for better Method ſake; And to call the Diſeaſes of the Brain and its* Meninges, *or Films, by the name of* Head-diſeaſes, *moſt properly ſo from the excellency of the parts wherein they are. Theſe come from the* hinderance *of the* Action *of the Brain, either in reſpect of* Sence, Motion, *or* Nutrition. *The Sence is divided into Internal, and External: The Internal hath the chief actions, as Imagination, Reaſoning, Memory; as alſo Sleep and Waking: the Diſeaſes of which are, Frenzie, Madneſs, Melancholly,* Catoche, Coma *waking ſleep, and* Coma *long ſleep, Lethargie,* Carus, *Apoplexy. The External Sences are five, namely, Sight, Hearing, Smelling, Taſt, and Feeling: But becauſe the firſt four have their peculiar Organs or parts, which have divers Diſeaſes, which we ſhall treat of in ſeveral Books: We will in this Book lay down and declare thoſe which belong to the*

sence of Feeling, because they come immediately from the Brain *and its Membranes or Films disturbed, and are either termed Palsies, which come from Sence destroyed or diminished; or Headaches, which comes from* Sence *depraved. When the actions of the* Brain *are hindred in respect of motion, there ariseth Convulsion, Falling-sickness, Palsey, Apoplexy, Giddiness, or swimming of the Head, called* Vertigo, *and Trembling: Finally, When the acting or working of the* Brain *is hurt or hindred in its* Nutrition, *or* Nourishment, *the Disease is either in distemperature, or disorder of the excrement of the* Brain, *of which cometh a Catarrh, defluxion or distillation. We shall bring all these Diseases under their proper Heads and Chapters, in that order which is most usual for the way of Cure: Therefore we shall first declare the Cold Distemperature of the* Brain, *and then all Diseases that come from thence, because the ground of their Cure is in the Cure of that. Afterwards we shall lay down the Diseases that come from a Hot Distemper, and Hot Humors; which will all more clearly appear in their several Chapters.*

CHAP. I.

Of the Cold Distemper of the Brain.

ALL Distempers are usually divided into Simple, and Compound; Material, and Immaterial. Simple or single Distempers are seldom seen; as also immaterial distempers, for they come from Primary Causes, and either vanish of their own accord, or with very smal Remedies or Medicines: But Material Distempers produce all the Diseases of the Head; therefore we will fall close to discourse of them; which few Authors have done, in handling them severally, because in the laying down of the Diseases which are produced of those Distempers, they are sufficiently explained. We therefore will transfer the handling of the Hot distemper of the Brain, and also the Moist and dry Distempers to the Chapters which contain those Diseases which are produced from them. But because the greatest number of Diseases of the Head come from a Cold and Moist Distemper of the Brain, we thought fit to discourse of that by it self in the beginning of this Treatise; that the Cure of that may be as the Foundation of the Cure of all Diseases coming from thence, and that the Medicines may be found in this Chapter which appertain to the Cure of their Cause: Therefore we will avoid the vain repetition of those Diseases, which is the Custom of almost all Writers of Practical Physick, who by that means enlarge their Volumns, and make the Art more difficult and redious to yong beginners.

The Cold Distemper of the Brain which is Compound and Material, or joyned with Matter, is for the most part waterish and moist; because the Brain is that Mother of Moisture or Flegm, and Coldness long abiding draws moisture to it self. For albeit sometimes it is joyned with a Melancholly Humor, yet that Humor is seldom begot in the Brain as Flegm is, but it is for the most part lodged in the *Hypochondria*, or Parts beneath the Ribs, and sent from thence to the Brain, whereby most grievous Symptomes are produced.

The Causes of a Cold and Flegmatick Distemper of the Brain, are these:

1 Cold and moist Meats which easily turn into Flegm; and also in the time of their Concoction, by cooling the Stomach and the Liver too much, produce abundance of Flegm, which after is sent up to the Brain.

2 Too great a quantity, not only of Meats which are too cold, but also of good and wholsom, which destroyeth the Natural heat, and begetteth Crudities.

3 Eating presently after or before meat, and before the former meat is concocted; whence come many Crudities, which send Flegm to the Head.

4 The

4 The ceaſing of a Natural cuſtom of vomiting, or purging flegm; or the omitting the Cuſtom of taking Purges, Sweats, Diureticks, or provokers of Urine, or omitting of accuſtomed Exercise.

5 To be born of Parents troubled with a cold diſtemper of Brain.

6 Old Age, which by reaſon of the decay of Natural heat, produceth much Flegm: as alſo Youth by reaſon of Gluttony and diſorderly Diet.

7 A Cold and Moiſt dwelling, neer ſtanding Pools, Marſhes, Fens and great Rivers, open to the North winds, Snow and Rain.

8 Long and deep ſleep, eſpecially preſently after Meat.

9 A ſedentary idle life, without, or with too much Care, Study, or Sorrow, becauſe by diſperſing the Natural heat, eſpecially in the Brain, they make it cold.

10 To theſe may be added a hot and moiſt Liver, which ſends many Vapors to the Brain, which there condenſe or grow thick, and ſo turn into Flegm.

The Signs of a cold diſtemper of the Brain, are taken either from the Cauſes above mentioned, by the preſence of which we may eaſily conjecture of the condition of the diſtemper; or they are taken from the effects of the diſtemper; which that they may be particularly examined and tried, we ſhall fetch from their Originals, namely, from Actions, Paſſions, Excrements, and Habit of the Body.

1 The Animal Actions, which declare a cold Diſtemper of the Brain, are theſe; A heavy and dull Mind, a ſlow blockiſh Wit, an unfortunate Memory, a great inclination to ſleep, and long and deep continuance therein, except a Catarrh, or Defluxion, Pain of the Head, or Paſſions of the Mind do hinder it: Dreams of Coldneſs, of Waters, as Rain, Snow, Floods, Pools, Seas, and of white things: A ſlowneſs and dulneſs of all the Sences: Slowneſs of Motion, yet continuance therein; becauſe groſs Spirits are more difficult to be diffuſed or diſſolved.

2 The Paſſions which declare a Cold Diſtemper of the Brain, are Cold Diſeaſes, as Palſies, Lethargy, Catarrh, or Defluxion, and many others, with which if the ſick party have been formerly troubled, we may well conjecture that he is ſubject to this diſtemper of a cold Brain. This will further appear if the ſick man be better in clear, hot, and dry weather, than in cold, moiſt, winter, and rainy weather. Moreover, an often and plentiful ſending forth of ſnot and flegm from the Mouth and Noſtrils, is a clear demonſtration of abundance of cold Flegm and moiſture in the Brain.

3 From the Habit of the Body, we may have ſigns both general and particular of this Diſtemper: The general Signs are taken from the whol Habit or Conſtitution; for if the whol Conſtitution be cold and moiſt, then without queſtion the Brain, which is moſt cold and moiſt of all other parts, is the ſame: Therefore a Skin which is cold, ſoft, ſmooth, and white; a Body ſoft and ſlow, not fleſhy, with ſmal veins, declare a cold conſtitution or temper. The particular Signs of a cold Brain are in the Head; as paleneſs of Face, no Veins to be ſeen in the Eyes, ſoft hair, ſmooth, and thin, growing ſlowly, red, and not curling, continuing the whol life without baldneſs; and when the Head is quickly offended with outward Cold, and refreſhed with Heat.

As to the Prognoſis, or Prognoſtical part concerning this Diſtemper; It is hard to be cured, and often produceth grievous Diſeaſes: that which hath been long breeding is moſt hard to be cured; that which is Natural, Hereditary, and from the Birth, is never to be cured; as alſo that which is in old folks, if it hath been of long continuance. Winter is not a fit time for the Cure of this Diſtemper but Summer.

The Cure is wrought from two Indications or Intentions; namely by evacuating or diſcharging the flegm abounding, and correcting or qualifying the diſtemper of the Humor by its contraries, which muſt be done by Diet, Chyrurgery, and Phyſick.

The Diet muſt be hot and dry; and firſt make choyce of a pure Air, ſomwhat hot and dry, but not too hot, for that would diſſolve and powr forth the humors in the Head too ſoon, and ſo produce a diſtillation, and other diſeaſes which happen to thoſe who ſtay long in the Sun, or inflame their heads with too neer approach to the fire: The Air cannot be too dry, ſo it be temperate in its active qualities, but it had better be too hot than too cold.

Let not the Chamber of the ſick party be too little, too low, nor too moiſt or filthy, but open to dry winds which may paſs through: In moiſt, cloudy, cold times, the Chamber air may be altered with hot and ſweet Herbs ſtrewed upon floor; as Sage, Marjoram, Lavender, Roſemary, Tyme; or by burning the ſame, or other dry Woods, and eſpecially Juniper: let the fire be cleer, and ſuch as will dry the Air in the Chamber: Fumigations if they be not too ſtrong, do well to conſume moiſture; but they muſt be carefully uſed, they muſt be very gentle and moderate, otherwiſe they do hurt by melting and powring forth the cold humors too ſpeedily, which cauſe defluxions: and alſo you muſt conſider the Patients Conſtitution in the uſe of them, for ſome men are preſently brought to the Head-ach by any ſtrong ſcent, having their heads preſently filled with the vapor: A temperate and proper Fumigation is made of the pureſt Amber, putting little pieces thereof upon the Coals; it's

no way offensive, dries well, and strengthens the Brain, especially the Indian Amber, called *Gum Animi*; or you may prescribe this following, which is thus compounded.

Take Wood Aloes and Benjamin, of each two drams; of Storax, called *Styrax Calamita*, one dram and an half; Frankincence and Sandarach, of each two scruples; Gum-Animi and Cloves, of each half a dram: Make a gross Pouder of them to be thrown upon the Embers.

Southernly winds, and those that cause Rain are to be avoided, night-air, and especially Moon-shine, which much offend the Brain: Very cold and North Winds are to be wared of, especially when they suddenly are changed from the South; for such a wind doth squeeze a Brain full of moist excrements, and sends them down into the Body, even as a mans hand squeezeth a wet spunge.

Secondly, A special care is to be had of Diet, for as *Hippocrates* saith in his Book of *Humane Nature*, Diseases are partly from Diet, and partly from the Air wherein we breath: Therefore let the Diet be of good Juyce, easie concoction, neither cold, nor over nourishing: Therefore Mutton, Kid, Veal, are to be used, and which are better, yong Pidgeons, Chickens, Capons, Hens, Partridges, Black-birds, Thrushes, and all kind of Mountain Fowl, and Yolks of new laid Egs: roast Meats are better than boyled. Take heed of hard flesh, and of hard concoction, as Beef, Pork, Venison, Hares, Geese, Ducks, and Sea Fowl: as also of the Heads, Entrals, and Appurtinances of Beasts. Eat Fish but seldom, and make choyce of those which have solid Flesh, coming out of swift Rivers, and stony places; boyl them in Wine, adding Vinegar, Butter, and Spice, which Sawce is to be allowed with other meat, unless the Liver be over hot; of which principally use, Nutmeg, Cloves, Cinnamon: never or seldom eat cold and moist Herbs, as Lettice, Purslain, Spinage: but in Summer time we can allow a moderate use of Herbs which are gently cooling and drying, for the strengthening of the Body, and fixing the Blood that it may not evaporate, as Endive, Succory, Sorrel, but they must be taken boyled, not raw. Roots of Parsly, Carrots, Parsnips, Mints, Hyssop, Water-cresses, are very good. But you must avoid all things that easily disturb the Head, and fill it with vapors; and they are of two sorts: Either they are such as discuss and melt the Humors with their sharpness, as Onions, Garlick, Mustard, Rocket, Rhadishes: or such as fill the Head with gross vapors, as Milk, and all Milk meats: All manner of Pulse, as Beans, Pease, &c. of which the red Pease are the least hurtful, by reason of their opening and absterstive nature; therefore the broth of them is allowed. You must avoid all green raw Fruit, which are not lasting especially, and those which are very moist: dryed Fruits may be used at second or last courses, as Raisons, Almonds, Pine-nuts, Dates, and the like; but you must use them sparingly, for they are for the most part hard of concoction. Pears boyled and Sugared, Citron Rinds Candied, Lemmon and Orange Pills Candied, may be eaten at the last course: but it is much better to take one spoonful of digestive Pouder after meat, whose Aromatical sweet vapor ascending with the vapor of what is eaten doth strengthen and dry the Brain: It is made of Coriander Fruit, Annis seeds, Cinnamon, Nutmeg, with a double quantity of Sugar of Roses. Let your Bread be of the best Wheat, wel baked and leavened, and made with Salt and Annis seeds: in a great distemper Bisket is best. Let your drink be thin wine of smal strength, which wil not fill the Head with many vapors, wel mixed with Water; and also it is profitable one hour before meat to mix wine and water that the vapors may be allayed, and to boyl a little Coriander seed in the water that it may better strengthen both Stomach and Brain: in stronger Diseases use Hydromel, or Water and Honey. This is a good Rule in all Diet, To eat moderately, and to let the Supper be less and lighter than the Dinner. Sobriety, as in all Diseases, so especially in Head-Diseases is of great concernment; for the Head by much food is filled with Humors and Vapors: and contrarily, by little and slender Diet it is emptied of them.

Thirdly, You must use moderate Exercise, and every day continue it, for too much rest weakens the Natural heat, and makes it so dull that it cannot well concoct, and fills the Body full of Excrements: On the other side, Motion and Exercise stir up the Natural heat, help Concoction, expel Excrements, and cheereth the Spirits, and purifieth them, but you must exercise before meat, and after meat rest for an hour or two, or at least move very easily.

Fourthly, Use a mean in sleep and waking, for as with moderate sleep the strength is repaired, so with too long the Body is made cold, burdened with excrements, especially the Brain: but too much watching, makes the Body thin, spends the Spirits, and feeds upon the sound parts of the Body. Let not therefore sleep be too long, but according to custom commonly seven hours are allowed, but more or less may be taken according as age and custom shall require; if you offend in either extream, it is better to offend in too much waking than in too much sleep. You must not sleep straight after meat, but two hours after at least, having taken a gentle walk. You must sleep with your head high, and upon one side; lying on the back is not allowed.

Fifthly, All the Excrements of the Body are to be evacuated in their season, of the Brain especially; therefore every morning hawk from the Pallat, blow the Nose, comb, and rub the Head with a course cloth, or spunge, which will fetch the superfluities of the Brain through the sutures or seams of the

Skull

Skull. The Belly muſt be kept open; and if it will not otherwiſe, uſe a Suppoſitory, or a Clyſter, or ſome gentle Lenitive at the Mouth. For the Excrements are not only taken away by ſo doing, but alſo by degrees ſomthing is fetcht from the Brain, or at leaſt ſomthing is reteined and derived thereby from the Head, which was, or would have been ſent thither as to the weakeſt part.

Laſtly, You muſt have ſpecial care of the Paſſions of the Mind, from which our bodies are many times wonderfully altered and diſturbed; eſpecially of Anger and Sorrow: Sorrow diminiſheth the Natural heat, wounds the Spirits, whence comes ſmal concoction, and many Excrements: Anger makes a great boyling of the Blood, and motion of the Spirits, by which the Humors are diffuſed and diſſolved, and then if there be any Excrements in the Brain, preſently they are ſent to the weak and infirm parts, from whence ariſe many dangerous Diſeaſes.

The other two Means for Cure, namely, Chyrurgery and Phyſick, may be uſed as followeth:

In almoſt all Diſeaſes which come of the Humors, we uſe to make a general Evacuation by Blood-letting and Purging.

Blood-letting is not agreeable with Flegmatick Diſeaſes; but if in other parts of the Body Blood do abound, the Liver be inflamed, and the age of the Patient be flouriſhing, and conſiſtent with it, we may then let blood: for ſo will the aſcention of vapors into the head be hindred, and ſuperfluous Nouriſhment taken away, that Nature afterwards may more eaſily concoct what is raw and wateriſh in the blood; and then purging Medicines may be given more ſafe.

But if *Plethora*, or two great repletion do not Conſtrain, it is better before blood-letting to give a purge for Flegm by way of Potion, Bolus, Pills, or Pouder. The Forms whereof are as followeth.

Take of Senna half an ounce; Annis ſeeds, and Cloves, of each half a dram; Leaves of Mints and Bettony, of each half a handful; of the tops of Time, half a pugil: Boyl them to a quarter of a pint in Spring Water; ſtrain it, and infuſe in it two ſcruples of the beſt Agarick Trochiſcated; of Cinnamon half a ſcruple; ſtrain it again, and diſſolve in it three drams of *Diaphœnicon*, and one ounce of Syrup of Roſes. Let this be the Potion to be given with ſafe Government. Or,

Take *Diacatholicon*, and *Diaphœnicon*, of each half an ounce; make it into a Bolus with a little Sugar. You may ad two drams of *Diacarthamum*, and take away as much of the *Diaphœnicon*: or you may make it of equal parts of *Diacarthamum* and *Diaphœnicon*, without the *Diacatholicon*.

Or,

Take Pill. Cochie the leſs, two ſcruples; with the Water of Bettony make them into five or ſix Pills gilded; which let him take early in the morning, having eaten but a light ſupper over night.

The Pills of Agarick, and of Cochie the greater, are very fit for this purpoſe. For a Pouder.

Take Senna, Turbith, Hermodacts, of each a ſcruple; Diagridium half a ſcruple; one Clove: Give this pouder in Broth taſting.

After Blood-letting, if it be neceſſary, we come to the preparation and purging of the Humors, which may be done with the following Apozeme, or opening Drink.

Take the Roots of Cyprus, Flower-de-luce, Angelica, Zedoary, and of Elicampane, of each one ounce; the Leaves of Bettony, Marjoram, Balm, Penyroyal, Organ, Calaminth, of each a handful; of the tops of Time and Sage, of each half a handful; Annis ſeeds, Seſelis, or broad Cummin, Fennel ſeeds, of each three drams; Liquoris ſcraped, and Raiſons ſtoned, of each one ounce; the Leaves of Senna ſprinkled with *Aqua vitæ*, two ounces; Carthamus ſeeds bruiſed, and freſh Polipody of the Oak, of each one ounce; Agarick trochiſcated, Turbith, Hermodacts, of each three drams; Ginger and Cloves, of Each one dram; Stœchas, Roſemary, Sage, and Lavender Flowers, of each one Pugil, or ſmal handful: Boyl them in fair Water to two pints; ſtrain it and ad four ounces of white Sugar: clarifie it, and aromatize it, that is, make it ſweet with two drams of Cinnamon; let this be for four morning draughts.

In the firſt and laſt draught diſſolve of *Diacarthamum*, or *Diaphœnicon* three drams; and let him drink it with Phyſical Regiment.

Or if you ad no Electuary to the laſt doſe the day following, you may give the purging Pills above mentioned.

After Purging, that the Brain may be altered and ſtrengthened, and the Medicines purging, not leave any offence, the Patient may take this Bolus following:

Take of old Treacle one dram; Conſerve of Roſemary and Roſes, of each two ſcruples: with Sugar make a Bolus, which let him take in the morning two hours before meat, and drink after a ſmal draught of ſmal Wine.

But becauſe this is a ſtubborn Diſeaſe, and will not alwaies yield to gentle Medicines, we muſt fly to ſtronger. And then after Purging, we muſt uſe a ſweating Diet, which dries and warms the Brain and the whol Body; concocts crude and raw humors, & makes the thick humors thin, cuts thoſe which are ſlimy and clammy, cleanſeth thoſe that are foul and dul, and ſends forth whatſoever is over

moiſt

moist by Urine, Sweat, or insensible transpiration. For the effect of all which it is very good to use a slender Diet at the time of taking it.

This Diet drink may be made either of a Decoction of Guajacum, or Lignum vitæ only, or by putting to it some Sassaphras, or Roots of Sarsaparilla, or those things which are most proper for the Head, as the Prudent Physitian shall think fit that wil consider the divers tempers and constitutions of Bodies; in respect of which he will prescribe a longer or shorter continuance of this Diet to fifteen, twenty, or thirty daies.

Now the Sweating drink is made as followeth:

Take of Chips of Guajacum, and Roots of Sarsaparilla, of each two ounces: infuse them twenty four hours in four pints of Water upon warm embers: then boyl them gently without smoak to the consumption of half; strain it through a Hippocras bag, and keep it in a glass bottle, and give half a pint warm in the morning, covering him warm, and provoking sweat.

Take of Sarsaparilla two ounces; infuse them twelve hours in twelve pints of Spring Water; then boyl them as before to the consumption of the fourth part; strain as before, adding Coriander seeds, Liquoris, Sugar or Cinnamon, as much as will make it pleasant. Use this for ordinary Table Drink at the time of the Diet; eating Bisket made with Annis seeds, roast Meat, not boyled, Almonds roasted, Raisons, Pinenuts, Prunes boyled with Sugar, and the like.

This is alwaies to be observed in the use of Sudorosick or Sweating Medicines: You must give a Purge once a week, and that day omit sweating, by reason that sweating expels only the thinner matter, leaving the thick which must be sent forth by stool. Moreover, because by the use of sweating Medicines the Body is often bound, you must give a Clyster every third or fourth day.

If the Disease be not yet cured, you may use these bags for the Head, in the time of sweat.

Take of Annis seeds, Fennel seeds, Bay-berries poudered, of each three ounces; of *Milium*, or Millet seed, or Hyrse, one pound; of common Salt half a pound: Fry them in a Pan, powring by degrees a little strong Wine upon them. With these fill two bags, apply them hot one after another to the mold of the head being shaven; do this presently after he hath taken the sweating Potion. Then wipe off the sweat, and clap this strengthening Plaister to the Head.

Take of cleer Amber, Frankinsence, Mastick, of each one dram and an half; Galbanum, Opopanax, of each one scruple; of Misselto of the Oak two drams; male Peony seeds half a dram; Oyl of Nutmegs as much as is sufficient: Make a Plaister of them in an oval form. Or you may use the head strengthening Plaister in the Apothecaries Shops at *Mountpelior*, not in the *Dispensatory*, whose description followeth:

Take of Storax, Benjamin, Laudanum, of each four ounces; Peony roots, Flower-de-luce roots, Misselto of the Oak, Mastich, of each one ounce; liquid Styrax as much as is sufficient to make a Plaister: of which one ounce upon Leather in an oval form may be applied to the Coronal Suture.

If you desire a more drawing dissolving Plaister which is commonly called *Epispastick*, thus you must make it.

Take of *Emplaster de Mucilaginibus* two ounces; Flower-de-luce roots, Hermodacts, Pellitory of Spain, Staphisagre, Cubebs, Pidgeons dung, Mustard seed, of each one ounce; Nutmeg, Cloves, Cinnamon, long Pepper, and black Pepper, of each half a scruple; Liquid Styrax as much as is sufficient: Make a Body of Plaister, and spread a little upon Leather in an oval form for the mold of the head.

After General Evacuations, you may come to Particulars; which are made by Errhins or Juyces, for the Nostrils, sneezing pouders, Apoplegmatisms, or Medicines chewed in the Mouth.

Take Leaves of Marjoram, Sage, and Bettony, of each one handful; beat them in a Marble stone Mortar, sprinkling by degrees Bettony Water, and white Wine, of each two ounces: Press out the Juyce and make an Errhine, which you may make sharper if you ad half an ounce of Flower-de-luce roots.

It is a custom now adaies to rub the dry Leaves of Tobacco between the fingers, and to snuff up the Pouder: this fetcheth much humor from the Brain, and is at hand.

But the best Sternutatories are made thus:

Take the Leaves of Marjoram, Sage, Rosemary, all dried, of each half a dram; Pellitory of Spain and white Hellebore, of each one scruple; Musk three grains; which with a Quil may be blown into the Nostrils. Or,

Take Ginger, and Flower-de-luce Roots, or Orrace, of each one scruple; Castor half a scruple; Euphorbium six grains: Make them into Pouder. But the chiefest smelling Pouder is made of black Hellebore, with an equal weight of Sugar Candy finely poudered. Which also is excellent for curing a defluxion.

Apophlegmatismi, or Medicines drawing Flegm out of the Head, are either called *Masticatories*, that is, chewing Medicines; or *Gargarisms*, that is, Medicines to gargle in the Throat. A Masticatory is thus prepared.

Take of Pellitory of Spain two drams; Mustard seed and Staviſagre, of each one dram: Make them

them up with white Wax into little Balls; of which let one be chewed every morning, holding down the head.

A Flower-deluce root is uſual for the ſame purpoſe, which wil do good in ſmal infirmities. Maſtich alone chewed is the mildeſt Maſticatory, and it attracts, and draws humors to the mouth without heat and inflamation, which others do not.

A Gargariſm is thus made:

Take of Staviſagre half an ounce; Muſtard ſeed three drams; Pellitory of Spain one dram: Boyl them in Water and Honey to three ounces, in which diſſolve Vinegar of Squils two ounces.

In the uſe of theſe Medicines we muſt obſerve, That the Evacuation which is made by the Pallat, is more beneficial than that which is made from other parts, becauſe it is ordained by Nature for the only way by which the Head is to be purged and cleared. But the Noſe is made for ſmelling and breaching through, and Nature doth oppreſs and abuſe it, when ſhe ſends forth her ſuperfluous Excrements by it. Moreover the way of Evacuation by the Pallat is more ſafe, neither is the Brain ſo much ſhaked by it as by ſneezing. But Errhines, or Medicines that purge the head by the Noſe, do draw forth the matter more violently, becauſe not only the quality or vapor of the Medicine ſtir up the Brain as in Gargariſms, but alſo the very ſubſtance it ſelf.

We muſt alſo obſerve, That the uſe of Errhines or neezings is dangerous when the eyes are ſore, or the Noſtrils are ulcerated or ſore, and when the patient is inclined to bleeding at the Noſe, or to a giddineſs of the Head, which neezings wil ſuddenly bring by ſhaking the Brain too violently.

Liquid and moiſt Errhines are ſnuft into the Noſe from the palm of the hand, or by lying down are powred in; but the mouth muſt firſt be filled with Water or Wine, leſt that Medicine come by the Pallat into the mouth, although that which paſſeth through brings the humors more forcibly out of the mouth.

They muſt take heed of Gargariſms that are ſubject to Defluxions or Conſumptions.

Moreover, For particular Evacuations we may uſe *Veſicatories*, or Plaiſters that draw bliſters, to the Nape of the Neck. In the Diſpenſatory of *Mountpelier* is this Receipt, though it be not in any other.

Take of Galbanum and Ammoniacum, of each five ounces; of the Pouder of Cantharides, or Spaniſh Flyes, one pound and an half; Muſtard, Pepper, of each half a pound; Virdegreece and Pellitory of Spain, of each two ounces and an half; Euphorbium one ounce and an half; Wax one pound and an half; Pitch, Rozin, and Turpentine, of each one pound; Oyl a ſmal quantity. One ounce or two of this Plaiſter ſpread upon Leather, may be applied to the Nape of the Neck.

The Brain is alſo ſtrengthened by outward application of Pouders. Rhewm-Caps, by which it is comforted and made warm, and the remainder of the Humor diſperſed.

Take Pouder of Orrace half a pound; Storax and Benjamin, of each two ounces: pouder the Head with them every night, and comb it off in the morning.

This Pouder is very refreſhing by its ſcent, ſtrengtheneth the Head, dryeth the Hair: If you wil make it ſtronger, put Cloves, Nutmegs, and Cinnamon thereto.

Take *of Stœchas, Roſemary Flowers, and red Roſe Leaves, of each half a ſmal handful; dried Bettony two ſcruples; Coriander ſeed,* Lignum Rhodii, *Frankinſence, Orrace, Nutmeg, Maſtich, of each one ſcruple; Benjamin, Vernix, Mace, and Cloves, of each half a ſcruple: Pouder them, and wrap them in the thrids of Scarlet or ſweet Cotton, and with a piece of red Taffety make a Rhewm-Cap for the Head, to be ſewed in another Cap, or to be worn by it ſelf.*

The following Fumigation doth dry the Head.

Take *of* Lignum Aloes, *Frankinſence, Maſtick, cleer Amber, yellow Sanders, red Roſe Leaves, Bettony dried, of each one dram; Cinnamon, Mace, Cloves, Styrax Calamita, of each one ſcruple: make them all into groſs Pouder, which you muſt ſprinkle upon coals of fire, and let the Patient take the fume or ſmoak of it faſting, covering his head with a large linnen cloth to preſerve the fume, and opening his mouth: Let him do this twice or thrice in a week.*

But if by Fumes he find pain in his head, you may only perfume his night-caps every evening: For which uſe this following is eaſily prepared.

Take *of Frankinſence, Maſtich, Styrax Calamita, Benjoin, and Sandarach, of each half an ounce; Mace and Cloves, of each two drams: Make groſs Pouder of them.*

But becauſe this is a ſtubborn diſeaſe, and uſeth to produce new Flegm after both general and particular Evacuations, we ſhal preſcribe thoſe uſual Medicines by which the humor may ſometimes be drawn away, and the Brain preſerved longer in that ſtate, into which by Phyſick it is reſtored. To this end you may make a Magiſtral Syrup of thoſe Drugs which are in the Apozeme, or opening drink above written, taking three times as much of the purging things as before, which he may uſe twice or thrice in a Month, the quantity of two or three ounces in a Decoction of Bettony and Marjoram.

Or inſtead of Syrups he may uſe to take theſe Pills.

Take

Take *of the best Aloes half an ounce; Turbith that is Gummy, Hermodactls, and Agarick new made up, of each two drams; Diagridium one dram; Ginger and Cloves, of each half a scruple; Saffron and Salgem, of each seven grains. Pouder them all, and sprinkle them with the Water of Marjoram: then dry them in the shade, and make them into a Mass or Body with Oxymel of Squils; of which let him take half a dram or two scruples once in a week, two hours before Dinner.*

The day after his Syrup or Pills, as also twice or thrice in a week, let him take a quantity of this Opiate, or Electuary.

Take *of Conserve of Acorus Roots, or of Ginger, and Citron Barks candied, of each one ounce; the Conserve of Sage and Rosemary flowers, of each six drams; Nutmeg candied half an ounce; one candied Myrobalan, old Treacle, and confection of Alkermes, of each three drams; of the Pouder Diambra, and Diamoschi dulcis, of each one dram: with the Syrup of Citron Barks make it up: And let him take every morning two hours before meat, the quantity of a Chesnut; drink after it a little wine and water.*

This following Balsom doth more strongly corroborate the brain, of which he may take now and then three or four drops in wine or broth.

Take *of the Chymical Oyl of Nutmegs three drams; Oyl of Marjoram, Rosemary, and Amber, of each half a dram; Musk and Amber-greese, of each one scruple: with a little Oyl of a Mans Skull mix them together. You may make the Oyl of a mans Skull thus: Take the shavings or raspings of a Skull that was never buried, put them in a Retort, or Still so called, in as much white Wine as will suffice: Let them stand in* Balneo Mariæ, *that is, a kettle of warm water for some time; then distill it in Sand till it is dry; and you shall find the Oyl swimming upon the Water which is drawn off.*

Anoint your Nostrils within with this Balsom every night, and it wil strengthen the Brain wonderfully.

There is another cheaper for to anoint the Nostrils with: which is,

Take *the Oyl of Orange Flowers two drams; white Wax one dram; melt them gently, and put thereto Oyl of Amber half a dram; of the Chymical Oyls of Sage and Rosemary, of each fifteen drops; Oyl of Spike five drops; mix them together.*

It is also very good for the drawing away of the mattet which breeds continually in the Brain, by an issue in the hinder part of the neck.

Lastly, The Baths which come out of Brimstone, Niter, Bitumen, as those called *Bellilucanæ*, are very good for the drying and strengthening of the Brain if it be washed therewith for some daies, after general evacuations are made. Daily experience teacheth us that most grievous Head-Diseases coming of cold Distempers are thereby cured. It is profitable also to drink those Waters for the strengthening of the stomach which alwaies doth sympathize with the head. Therefore I set down this digestive Pouder.

Take *of Coriander seed prepared one ounce; Annis seeds, and sweet Fennel Seeds, of each three drams; Cinnamon and Nutmeg, of each two drams; Coral, Ivory, and Pearl prepared, of each one scruple; Sugar of Roses as much as all the rest, or for rich folk twice as much, of which let him take a spoonful after every meal, not drinking or eating for three hours after.*

CHAP.

CHAP. II.

Of Drouzie Diseases, called, Coma, Lethargy, Carus, *and* Apoplexy.

THere are four kinds of Preternatural sleep, namely, *Coma*, *Apoplexy*, *Carus*, and *Lethargie*. We will speak of them together in this Chapter, because they proceed from the same Causes, and are cured all the same way.

These four Diseases differ one from another after this manner:

In the Disease called *Coma*, *Cataphora*, or *Subeth*, according to *Avicen*, is a deep sleep; but such an one as from which the Patient is raised, openeth his eyes, and answereth, but presently he is again in a deep sleep.

In a *Lethargie*, the sleep is like that of *Coma*, but it is joyned with a Feaver and Frenzy, or Dotage.

In *Carus* there is no Feaver as in Lethargy, but in *Carus* the sleep is more deep and profound, so that when the sick party is rowsed up, he scarce opens his Eyes, and answers not, as in the former, but yet being pinched he is sensible, and his breath comes freely.

In *Apoplexy* the sleep is most deep, and a total privation of sence and motion, except breathing: and so therefore the sick doth neither open his eyes, answer, nor feel when he is hurt; as also he breatheth very difficultly.

There are many *Causes* of these Diseases.

The first and chief cause is Flegm and watery humor contained in the brain; of which (when there is but a smal quantity, that moisteneth and cooleth the substance of the brain, stopping up its pores and passages) cometh *Coma*.

But if the same quantity of Humor so gathered together, become putrified and corrupt, or grow into a tumor or swelling, or be dispersed throughout the brain, it procureth a *Lethargie*.

When it is gathered in a greater quantity without corruption, and that the humor is sucked up into the substance of the brain, it causeth a *Carus*.

And lastly, When the humor is in so great a quantity that it doth not only fill the brain, but also the ventricles thereof, stopping and straitening them, and also when it doth offend the Original of the Nerves which comes from the brain, and is placed in the basis or bottom of the Skull, and when it hindereth the passage of the Animal Spirit, it begets an *Apoplexy*.

Secondly, Sleepy Diseases spring also from abundance of blood in the brain; for if the store of blood contained, be more raw, watery, and cold, it thickens the Animal Spirits, and makes them unfit to move; as also the abundance of humor charging the brain, hindereth the free passage of the Spirits, and according as the humor is more or less in quantity, more or less in coldness, it produceth a greater or a lesser Disease: So that both *Coma*, *Carus*, and *Apoplexy* may be caused thereby.

But drowsie Diseases, especially the *Apoplexy*, are usually caused by blood out of its Vessels, stopping and compressing the Ventricles of the brain, and that falleth out either from a vein broken in the brain, or from an over fulness of the Vessels, or from some great bruise or contusion of the head, or from some cut or punctured wound, by which the veins of the brain are divided, and so send forth much blood. And the Fracture only of the Skul, compressing of the brain may produce a dulness, drowsiness or sleeping Disease.

Thirdly, It is without doubt that a Tumor in the brain, burdening it with its weight, may produce a sleepy disease. This is reported by *Platerus* to be found in a certain Barron, who for a long time was sottish and sleepy, did nothing rationally, nor desired meat, neither did eat any thing but what was forced into him; went not to bed but by compulsion, but would sit al day at the Table leaning on his arm, with his eyes shut, neither did he answer at any time without much asking and importunity, and then very little to the purpose. After his death his Skul was opened, and there was found in his brain, a great Kernel, hard, and of a callous body; the cause whereof might be some stroak upon the head, which he had received long before the beginning of his Disease.

Fourthly, Many Vapors flying into the Brain may be the cause of a sleepy disease: for if the vapors be many and gross, that they burden the animal Spirits, and darken them as with a mist, even as the clouds in the greater world darken and obscure the beams of the Sun. But if they be overmoist they do so wet the Brain that it becomes weak and faint in its functions and performances: Therfore Drunkards sleep profoundly from the vapor of the Wine, and the abundance of crudities sent up into the Brain. So Children that are troubled with the worms are often taken with sleepy diseases from the abundance of gross and thick vapors which arise from crude and waterish humors. So in intermitting Feavers or Agues, sometimes in the beginning of the Disease there is irresistable sleep, by reason of the crude and stinking humors which are contained in the veins, especially in the Meseraick veins, which humors being made thin by the heat of the fit of the Ague, send many vapors to the head, and produce such a sleep as ends with his cold fit sometimes, and at other times continues to the end of the fit, according as the vapors are more gross or thin; or as they are more or less in quantity, and so are longer and sooner discussed and dispersed.

Fiftly, Many times so great a sleeping Disease is begot by the too frequent use of Medicines called *Narcoticks*, that do produce sleep; that many unawares by the unskilful use of Opium have slept their last. There is also the same stupifying force in some living Creatures: as in the *Torpedo*, or Cramp-fish. So *Plutarch* reports in the death of *Cleopatra*, That the sting of a Viper causeth deadly sleep. But in mans Body this stupid sleeping condition comes from the putrefaction of humors, which is seen in malignant and pestilential Feavers; hence it is that in those diseases they are very sleepy oftentimes, which is a certain sign of venenosity and malignity, and sometimes of death.

The Diagnosticks or Signs which shew the differences of these sleeping Diseases were set down in the beginning of this Chapter. But the Signs of the Causes that produce these Diseases are these:

When sleepy Diseases come from watery humors purrifying in the Brain, these are the signs: A Flegmatick Constitution, Old Age, Infancy, a cold and moist dwelling and season, a stopping of an accustomed spitting and blowing of the Nose, and when the sick man before the coming of the disease was troubled with heavinels of the Head, dimness of sight, and dulness of the whol Body; and when in the Disease there is a defluxion of Rhewm from the Nose or Mouth; or when the sick party feeleth it trickle down his Throat.

That sleeping Diseases are bred of blood, appears by a plethorick or full Body, red Face, pain of the Head going before the Disease.

A Tumor or swelling in the Brain is scarce by any signs to be known, but is only manifest after death by opening of the Skull as was before mentioned.

That the Disease comes from vapors flying into the Brain, appears from those signs which shew the particular Diseases of those parts, from whence the vapors are sent up to the Brain. A surfet going before, with crude and sharp belchings, and other signs of crude humors in the Stomach, and other parts of the lower Belly, shew that the Disease comes from vapors which are sent from the Stomach. But if the Vapors come from Worms, you shal know that in the Chapter of them.

As for the Prognosis or foreknowledg of things in these Diseases, Every sleeping Disease is dangerous, but by how much the deeper the sleep is, and the sick man harder to be awaked, by so much greater is the danger; and therefore a *Carus* is more dangerous than a *Coma*, or a *Lethargie*; but an *Apoplexy* is worse than a *Carus*, for if it be violent, it is altogether incurable, as *Hippocrates* observeth in his 42. Aporism of the Second Section; which is thus: It is impossible to cure a strong Apoplexy, and not very easie to cure a weak one; a strong Apoplexy is when the breathing is uneven and disorderly, and sometimes intermitting, and if such a breathing is very violent the disease is stronger, if the breath be stopt it is most strong; but when there is some order in the breathing, the Disease is weaker, which is declared by *Galen* in his Comment upon the said Aphorisms.

A sleeping Disease is very dangerous which comes upon an acute Disease, for it either signifies the extinction of the Natural heat, or a poysonous malignant quality which hath seized on the Brain.

That Disease which comes by consent of the lower parts, and from vapors which arise from them, is less dangerous.

Men sick of a Lethargy, die within seven daies; if they live longer, they recover. *Hippocrates* in his Book of Diseases.

Sleeping Diseases in old men, are for the most part deadly; for in regard of their want of Natural heat, they having a weak concoction, and weak expulsion, it comes to pass that they cannot overcome and expel that humor which causeth the Disease, much less can they expel that humor which aboundeth in the Brain, for since the Brain is the coldest part of the Body, it must needs in old people have its heat diminished and extinguished sooner than any other parts.

In a Lethargy, if a Tumor happen under the Ears, or if matter or filth come forth of the Ears, and the symptomes abate, it is a sign of health, for it sheweth the strength Nature hath got over the cause of the Disease, which it expels before perfect concoction out of the Emunctuaries under the Ears, or

or purgeth it out being turned into matter by the Natural paſſages.

They who are preſerved and cured of the Lethargy do uſe after to ſpit matter and blood, *Hippocrates* in *Coac.* and Third Book of Diſeaſes. This Opinion, ſay ſome, agrees not with Experience, for few have ſeen a true *Empyema*, or corrupt matter between the Breaſt and the Lungs, follow a Lethargy: But the Interpretation of *Mercurialis* upon the Aphoriſm is very right, for he ſaith, That *Hippocrates* meaneth by *Empyema* and *Empyicus*, not the diſeaſe of the Breaſt, but when filth is diſcharged by the Ears and Noſtrils. And *Galen* hath taught us in his Commentary upon Aphoriſm 8. Sect. 5. and Aphoriſm 44. Sect. 7. That *Hippocrates* by *Empyema* underſtands there, not only that ſuppuration and breeding of matter, which is in the Breaſt, but alſo that which is in al other parts.

It is a good ſign when a Phrenſie followeth a ſleepy Diſeaſe coming of a cold cauſe, becauſe by that violent heat which cauſeth a Phrenſie, the watery matter which begets a ſleepy Diſeaſe is concocted.

Men in Apoplexies die in ſeven daies, except a Feaver take them, *Hippocrates* 2. of Diſeaſes, and Aphor. 51. Sect. 6. but that Feaver muſt be a violent one, and eſſentially ſpringing from the inflamation of the Humors and Spirits, otherwiſe it will not diſcuſs the matter which cauſeth the Apoplexy: for if it be gentle, and only ſymptomatical, or happening to the Diſeaſe as an accident, as in an Apoplexy, coming from the burning diſpoſition of the head through too much blood contained in the veins thereof, then the Feaver doth not diminiſh the Diſeaſe, but rather cauſe ſome ſymptomes of madneſs, which weaken the Animal Faculties: and in this caſe a Frenzy coming upon a ſleepy Diſeaſe is not good; as we ſaid in the Prognoſtick before mentioned. Moreover, a Feaver that muſt diſſolve a ſleeping Diſeaſe, muſt have another condition, namely, That it come in the beginning of the Diſeaſe, whiles Nature is in ſome ſtrength to put forth ſtrong endeavors. For that Feaver which comes after the Diſeaſe hath long continued is not healthful, as *Hippocrates* in *Coacis*, ſaith, Apoplexies being like to be diſſolved, if a Feaver come upon them after they have long continued, are deadly.

A faint Sweat in an Apoplexy is evil, for it ſhews great oppreſſion of Nature.

For the Cure of theſe Diſeaſes, as of al other, three neceſſary means are required.

First, Order of Diet.

Secondly, Manual Operations, or Chyrurgery.

Thirdly, Medicines, or Phyſick.

The Diet in the beginning of theſe Diſeaſes muſt be very ſlender; becauſe they are very acute, or violent and ſharp; therefore the Patient muſt be fed only with thin broaths now and then: But in the time of the declination of theſe diſeaſes we may uſe the ſame Diet which is preſcribed in the Chapter before going, treating of the cold Diſtemper of the Brain.

The other two means are to be uſed by this following Method.

And becauſe ſleeping Diſeaſes are ſudden, and ful of danger, they require the Phyſitians chief diligence, and quick application of Medicines.

First therefore, when the Phyſitian is called to one taken with a ſleeping diſeaſe, he ſhall endeavor to raiſe the Patient from his deep ſleep, by offering violence to al his Sences? and laying his eyes towards the Sun-beams, and cleareſt light; he muſt make a great noiſe in his Ears, and he muſt be called aloud by his own Name. He muſt put ſharp things to his Noſtrils, as Rue, Caſtor, Vinegar, and ſharp things into his Mouth alſo.

He muſt ſtir up his feeling with pinching, pulling of hair, by ligature or binding, bending of the fingers, and the like.

Make firſt a Clyſter of the common Decoction which is moſt ready, after this manner.

Take *of common Decoction for Clyſters, one pint and an half*: Hiera picra, *and* Diaphœnicon, *of each one ounce*: *Oyl of Rue, and of Lillies, of each one ounce and an half*: *Honey of Roſes two ounces*: *Salt one dram*: *Make a Clyſter, give it preſently.*

While theſe things are doing, the Phyſitian ought ſeriouſly to conſider whether Blood-letting be fit or not; for in theſe Diſeaſes, as *Celſus* ſaid, Blood-letting either kils, or cures; and blood-letting is good, if blood be the principal cauſe, or the aſſiſting cauſe, or if it be *ſine qua non*, that is, a cauſe without which the diſeaſe would not be, if ſtrength permit. But his ſtrength is not to be looked upon as he is in his fit, when his Animal Actions are hindred, but as it was before the Diſeaſe came. For if the Patient was formerly ſtrong, he will endure blood-letting, except the Apoplexy be very ſtrong: and if his ſtrength be not taken away by reſolution of the parts, but by oppreſſion of them, then is blood-letting good. But if Blood offend no way, or if the ſtrength be quite gone, or the Patient very old, you may omit blood-letting, but otherwiſe preſently.

The firſt thing to be done either by night or day to one in any of theſe Diſeaſes, is blood-letting, nay, before the Clyſter, if it be not already adminiſtred: But his Arm muſt firſt be well rubbed and chafed.

And this is to be observed, That it is more profitable and safe, not to let out so much blood at once as you require, but by degrees in some hours distance; for by the repeating of blood-letting, the matter is more easily moved, and the strength more preserved. Look in the sick mans face after his first loss of blood, and feel his pulse; for if his face be better colored, and more lively, and his breath more free, and his pulse good, there is much hope, and you may let blood the second time with more confidence. Make the Orifice large, otherwise he will not bleed, his blood is so thick. The more plenty of blood he hath, the more he may lose: But if flegm abound, you must bleed sparingly, lest the vital heat be lost, which is so absolute necessary for discussing and dissolving of this Disease.

A singular Example of large and often bleeding in an Apoplexy, is laid down by *Zacutus Lusitanus*, in his First Book of *the Chief Physitians*, and his 33. History, in these words: *A certain Noble yong Maid, fell first into a general forgetfulneß of all things, and then into a true Apoplexy, with the flowing of her Courses: Unto whom when they had applyed many Medicines both above and beneath, as Ligatures, sharp Clysters, Cupping with Scarrification: the Indication which comes from the flowing of the Terms being neglected, and danger coming on through continuance: I perceiving her strength to be sufficient for it, having first rubbed her Thighs very well, and placed Cupping Glasses thereon; in the space of eight hours, opened the head Vein four times, and then she began to speak, and so recovered.*

Some of our late Practitioners, are so bold as to open the Jugular Veins in Apoplexies, and say they cure also: and in so doing they take this course: First they bind the Neck gently with a linnen cloth, after the Vein is opened, they presently loose it, and the blood flows well without a Ligature, which might attract it to the head: after they heal up the wound with a sticking Plaister, without binding, and so they affirm the blood will easily stop: which *Zacutus Lucitanus* confirmeth (though he useth Ligatures) in his 79. Observation in his first Book of the Admirable Practice of Phytick, where he relates a Story of a most sharp Squinancy; in which, by the advice of most skilful Physitians, the Jugular Veins were opened; from whence followed (as he saies) a most dangerous flux of blood not to be stopt, which brought the Patient very weak. *Zacutus* being sent for, applies *Galens* Plaister, which he in his 5. Book of Method, and 4. Chapter, useth with good success for stopping blood in Arteries and Jugulars, and bending the Patients Neck gently, he comes to his strength, and is cured. This Plaister is made of Frankinsence, Aloes, the hairs of a Hare mixt with the white of an Eg, having twice as much Frankinsence as Aloes, as *Galen* teacheth in the place mentioned sometimes an equal part of each, when the Bodies are harder. And *Galen* commends the operation before written, when he saith, This Plaister stops the flux of the Jugular Veins without a Ligature or binding. But this I would take notice of, That the blood doth not flow forth so violently in one that hath an Apoplexy, as in one that hath a Squinzy, because the blood is congealed; as *Hippocrates* shews in his Second Book of Diseases, in the former, from whence the Veins and Arteries called *Caiodites* or Jugulars, are stopped: but in the latter the blood is hot and thin, because they who have the Quinzy have always an acute Feaver withal.

A few hours after bleeding you must purge without respect of time. Neither let the Physitian be too curious or fearful in purging, since the Disease doth much require it, and the time of the disease is not usually long. And that purge ought to be very strong because the humor is stubborn, and the Sences so drowned that they cannot be rouzed or stirred up without strong Medicines. And that Medicine is usually one ounce of the Electuary *Diacarthamum*, dissolved in Bettony Water with half a scruple of Castor. Or,

Take *Turbith four scruples: Agarick two drams: Ginger two scruples: Fennel seeds one scruple: Castor six grains. Infuse them in a sufficient quantity of Bettony Water: and in three ounces of it strained, dissolve the Electuary Diacarthamum three drams: Syrup of Roses one ounce. Let him drink it.*

Take *of Cochie Pills the less, one dram; Castor three grains: With Bettony Water make seven Pills, and if the party cannot swallow them, dissolve them in Sage, Lavender, or Bettony Water.* Or,

Take *of Cochie Pills the greater, and Pills of Agarick, of each half a dram: The Troches of Alhandal, Diagridium, and Castor, of each three grains: With Honey of Rosemary, make Pills, or dissolve it in Sage Water.* Or this Potion

Take *of Senna half an ounce: of white Agarick one dram and an half: of Turbith one dram: of Ginger and Galanga half a dram: Boyl them in Sage and Rosemary Water. In two ounces and an half of the strained Liquor put two drams of Diacarthamum the Electuary; and of Castor half a scruple; of simple Oxymel half an ounce.*

In a Lethargy, the purging Medicines must be milder from the beginning by reason of its continual Feaver accompanying; made of Agarick, with Rhubarb or Scammony; or of Pills of Hiera with Agarick; because Choller is that which carrieth the humors to the Head: Yet in the progress of the Disease, when the matter is flown to the Head, and sticks there, we may use the Purges above written. *Tralli-*

Trallianus gives one scruple of Scammony with two scruples of Castor in Oxymel, by which he hath cured many desperate Lethargies. And *Oribasius* saith, That there is no better Medicine for a Lethargy to purge away that flegm which Choller brought to the Head, than Scammony and Castor.

It often happens that the Faculties are so oppressed that Physick wil not work, which is an evil sign, and such seldom recover. But because *Celsus* saith, when things so fall out, we must use such Medicines as are at hand, if they be proper for the Disease; which is so desperate that we may use desperate Medicines. For as *Serenus* saith, The Physitians think such Medicines better in desperate cases, than for the Patient without tryal to die an easie death. And as *Celsus* saith, Many things may be done in time of danger and necessity, which may wel be omitted at another time. Therefore when we have used those Medicines without any success, we may wel rise higher, namely, To those Medicines which are made of Antimony; especially to those which are less vehement and furious, as *Aqua Benedicta*, of Dr. *Ruland*, made of the Infusion of *Crocus Metallorum*; which purging both upwards and downwards, bringeth such a quantity of Flegm, not only from the stomach, but the brain also, as sometimes the Patient is cured only with this Evacuation. And I can witness upon my own Experience, That I saw a Noble man thrice in two years cured from the Apoplexy with this only Medicine. Although some learned men do forbid the use of Vomits in these Diseases, yet we must yield to Experience, which dayly teacheth us, that Children affected with sleeping Diseases are more readily and safely cured by the vomiting Salt of Vitriol, than by any other Medicine.

The Tincture of Tobacco drawn with *Aqua vitæ*, and taken in the quantity of two drams, with Honey powred down the Throat doth excellently.

After you have given a purging Medicine, before it begins to work, and also while it worketh, you must think of al those things which cause revulsion of humors, and bring them into practice, not only frictions or rubbings, and ligatures or bindings, mentioned before, but also Cupping glasses to the back, shoulders, arms, and thighs, without scarrification if he was formerly blooded, and with scarrification if blood-letting was omitted.

In an Apoplexy you must not apply Cupping glasses to the Breast or Hypochondria, or parts under the Ribs, lest the Muscles of the Breast and Belly being contracted, the Breath be hindred.

The chief and only Remedy in an Apoplexy especially, is to apply Cupping glasses to the head: Which kind of Cure the famous Physitian *Fracastorius* being taken with an Apoplexy, did direct for himself by his Nods and signs; but for want of their understanding of them, he died.

Zacutus Lusitanus in his 33. History, and the first Book of the Principal Physicians, reports that he cured a desperate Apoplexy by setting a Cupping glass twice upon the hinder part of the Head with deep Scarrification.

A Vesicatory, or Plaister to draw Blisters to the Neck behind, and to the Shoulders.

Let two or three sharp Clysters be given every day.

Take of Pellitory of the Wall, Hyssop, Calamints, Organ, Sage, Rue, and the lesser Centaury, of each one handful; of Carthamus seeds half an ounce; of Fennel and Cummin seeds, of each three drams; of white Agarick tied in a linnen clout two drams; of Coloquintida tied with it, one dram and an half. Boyl them to one pint, strain them, and ad to the Liquor of *Hiera Picra* half an ounce; of *Diaphœnicon* one ounce; of Oyl of Rue two ounces: Make a Clyster.

The Chymical Physitians do usually ad two ounces of *Aqua Benedicta* of Dr. *Ruland*, made of the Infusion of *Crocus Metallorum*, and then it wil work strongly.

You may give four or six ounces of the same infusion at a time, and also you may take it out of the glass wherein the Infusion was made, shaking it before, that it may have some of the fecies or residents of the Pouder in the bottom to make it more strong. Therefore for the most part we do prescribe Clysters of *Aqua Benedicta*, or *Vino Emetico*, that is, the Infusion of *Crocus Metallorum*, because in many Diseases, especially Chollicks, it doth wonders.

Take of Emollient Decoction for Clysters one pint; of *Diaphœnicon* one ounce; of Infusion of *Crocus Metallorum* shaked together, four ounces, make a Clyster.

If the Clyster come not away in due time, give this Suppository:

Take of the pouder of *Hiera Picra* of *Galens* prescription, two drams; of Coloquintida and Agarick the best, of each half a dram; of Diagridium one scruple; Sal gem two drams; Honey boyled to a sufficient consistence or thickness, as much is sufficient; make Suppositories.

It often falls out that the Muscle of the Arse called *Sphincter*, is so weak, that a Clyster is given in vain because it cannot be contained, which is a desperate condition.

Apply Castor and Vinegar to the Nose, which are said to have a special quality against sleep.

It is also very good to sprinkle sharp Vinegar upon a red hot Iron, that the Patient may receive the vapor in his Nostrils. And it wil be better to put Nigella or Pepper-wort seeds, Rue seeds, or Castoreum to the Vinegar. But Vinegar it self warmed and applied to the Nose, if it be sharp, stirs up the Patient powerfully; and more powerfully if you put to it Pepper and Castoreum. The Fume of Brimstone doth also raise from sleep.

The

The Hairs of a Goat burnt, or the horn of a Deer or Goat burnt, held to the Nose, are most strong for the raising up of him that is in a deep sleep.

The fume or smoak of white Amber, is excellent for the awaking of men in sleepy Diseases; as also the Oyl of it often applied to the Temples and Nostrils.

Rub also the soals of the Feet with Salt and Vinegar, anoint the hands with Oyl of Rue, and of Castorium; touch the tongue and pallat with old Treacle dissolved in *Aqua Cœlestis*, or *Apoplectica*. But take heed that your Treacle be not new, for then Opium will cause more sleep. The Medicine called *Aura Alexandrina*, or *Confectio Anacardina*. You may also boyl Mustard seed in Vinegar or strong Wine, and wash the Pallat therewith. Roots of Pellitory of Spain boyled in Oxymel, that is, Honey and Vinegar do the same thing. But with all these Medicines you may safely use Castoreum.

When you have purged the Body generally in all parts, you must then purge the Head either sensibly or insensibly.

Sensibly, by the Nostrils and Pallat, by Errhines or Neesings, which are prescribed in the Cure of a cold Distemper of the Brain, and by the touching of the Pallat as before. To all these you may ad Rue, Castoreum, and Vinegar.

Concerning Neesing, It is to be observed, That if the Disease remain and encrease; and if the Patient be hard to be raised, it is very profitable: but we must not use them too long, lest they clog the Brain, and move the humors too much. But in the beginning of the Disease we must abstain from unseasonable neesing, because it disperseth the humor which wil fix in other parts; from whence come stubborn Diseases, or a smal sleeping Disease turns into a strong Apoplexy.

Last of all you must use those things which resolve the humor insensibly, which are compounded in this manner:

Take Bay-berries and Juniper Berries, of each one ounce and an half: Roots of Angelica, Zedoary, and Master-wort, call'd *Impatoria*, or Pellitory of Spain, of each one ounce: Leaves of Bettony, Sage, Rosemary, of each one handful: Rue, Savory, Marjoram, Lavender flowers, of each half a handful: Boyl them in Vinegar. Dip a Spunge or linnen cloth in this Liquor, and apply it warm to the Head. It is a wonderful thing to see what good this doth in sleeping Diseases: But you must rub the Arms and Hands, and the Legs and Feet with the same.

Take of Castor half an ounce: of Mans Hair burnt, three drams: of the Juyce of Rue, of Vinegar and common Oyl, of each two ounces. Boyl them to an Oyntment, and then anoint the Head therewith, after the Fomentation.

Take of Oyl of Pepper-wort called *Oleum Costinum*, of the Oyl of Castor, and of Euphorbium, of each one ounce: of the Pouder Mustard seed, and Euphorbium, of each one dram: of Vinegar one spoonful: of Wax as much as wil serve to make an Oyntment.

If the Disease doth not decrease after al these are used, then you must apply a great Cupping glass to the crown of the Head, and to the hinder part of the Head.

But a Vesicatory is best if Euphorbium be in it, for that wil draw the humor outwardly which lyeth deep.

Some are so bold in the height of the Disease to burn the hinder part of the Head, between the first and second Vertebra, or Back-bone with an actual Cautery.

Zacutus Lusitanus applied many in his time with good success, as he witnesseth in his first Book of Wonderful Practice, and the fourteenth Observation, in these words: *I being called to visit a sick man, who was for the space of thirty daies taken with drowzineß and irresistible sleep, with a smal feaver, not able to hold open his eyes: He had used many evacuating, and diverting or repelling Medicines, but they perfected nothing; therefore I applied the Cautery with much benefit; for with a red hot Iron I scorched the crown of his head till it was hard and crusty, as also the hinder part, and almost every where about his head, by which means he awaked, and the places burned beginning to matter, he arose and came to himself. By this means I remember I cured two sleepers contrary to expectation, after all other means had been used in vain: and these were cured by the heat of the fire, melting, dissolving the humor which came forth at their mouths and nostrils many daies after.*

Others have an Ancient Custom, to hold a red hot Frying-pan so neer the Head that it may burn the Hair, and not the Skin.

It is good in these Diseases to give the Patient a little *Aqua Cœlestis*, or Apoplectick Water; or other strong Water, which by its piercing quality do very much good, and have freed many from Apoplexies present and approaching, if Blood be not predominant or chief in the Body, which wil be hurt by the use of strong Waters.

Now there are many sorts of Apoplectick Waters, in *Langius*, *Wickerus*, *Quercitanus*, *Crollius*, and others. But we shal here only lay down one Water invented by my self, and made of the most proper Ingredients.

Take

Take of Peony Roots, and Miſleto of the Oak, of each two ounces: Calamus Aromaticus, Galangal, and Cyprus, of each one ounce: Bettony, Sage, Marjoram, of each one handful: Peony, Annis, Fennel, and Caraway ſeed, of each three drams: Lavender, Stœchas, and Roſemary flowers, of each a pugil: Nutmeg, Mace, Cloves, Cubebs, Grains of Paradice, cardamom, of each half an ounce: Cinnamon two ounces: Saffron, one dram and an half: the Species of *Diambra*, and *Diamoſchu*, of each two drams: Cut and beat them according to art, put them in a glaſs ſtill, and then powr in as much of the beſt Spirit of Wine as is ſufficient. Let it ſtand in *Balneo Mariæ*, or a kettle of warm Water with Hay in it for the ſpace of eight daies; afterwards draw it off, and keep the Water in a cloſe ſtopt glaſs bottle.

Now if the Diſeaſe decline, and his deep ſleep begin to ceaſe, you muſt omit al other Medicines and follow thoſe things only which ſtrengthen the Brain: which may be very wel done by the uſe of that Opiate or Electuary which I preſcribed in the Treatiſe of the cold diſtemper of the Brain. But if you wil uſe ſtronger than that, take the *Aqua Apoplectica* above mentioned.

Continue the uſe of Caſtor above all things, if the Diſeaſe continue, giving every morning three or four grains of it in the Oxymel of Squils, or ſimple Oxymel. *Trallianus* affirmeth that many overcome with this Diſeaſe, have been recovered only with this Remedy.

Outwardly you may uſe ſome Chymical Balſoms againſt Apoplexies, of which there are divers. We wil only diſcover one of the beſt unto you.

Take of *the Oyl of Nutmegs by Expreſſion, half an ounce*: *Ambergreece, Muſk, and Civit, of each one ſcruple*: *the diſtilled Oyls of Spike, Amber, Cinnamon, Roſemary, Cloves, of each half a ſcruple. With this Balſom touch the pallat every morning, and drop ſome into the ears, and ſnuff ſome into the noſtrils. For this purpoſe the diſtilled Oyl of Nutmegs uſed in the ſame manner is much commended.*

Laſtly, We muſt obſerve, That in the Cure of theſe Diſeaſes, we muſt uſe leſs hot things, and loſe more blood, when the Diſeaſe is cauſed of blood; and alſo we muſt mix Medicines that purge Choller with thoſe that purge Flegm.

They which have been troubled with any of theſe Diſeaſes, and are cured, do uſe many times to relapſe and fal into the ſame again; which that you may prevent you muſt correct the cold Diſtemper of the Brain, as before is taught; by which Method you may prevent either Apoplexy, Carus, Lethargy, or Coma. And if the Brain be very cold after general Evacuations, you may often uſe *Aqua Apoplectica*; or theſe Tablets or Lozenges following:

Take of *Amber-greece half a ſcruple*; *the diſtilled Oyl of Annis ſeeds, Cinnamon, and Nutmegs, of each three drops*; *Oyl of Cloves one drop*; *Sugar diſſolved in Orange-flower-water, four ounces. Make theſe into Lozenges, and let him take a dram or two of it every morning.*

Pills to ſtrengthen the Head, are thus made:

Take of *Cubebs, Maſtich, Nutmeg, Cloves, of each one dram*; *Amber-greeſe half a dram*; *of Muſk ſix grains. With Juyce of Marjoram make Pills, and let him take one ſcruple at a time twice in a week at his going to bed.*

This Pouder is much in uſe, and is much commended:

Take of *White Amber half an ounce*; *of the Pouder of the Electuary called* Diarrhodon Abbatis, *two drams*; *of Peony Roots, one dram and an half. Make a Pouder of them, and take a dram at a time in any Water for that purpoſe before every New Moon.*

It is good to hold Nutmeg in the Mouth, and to chew it very often.

Sweet Perfumes are to be uſed to the Noſe, eſpecially the Apoplectick Balſom.

Uſe Spices with Meat, after Meat a digeſtive Pouder, mentioned in the Cure of the cold Diſtemper of the Head.

If you fear a ſleepy Diſeaſe wil come from too much blood, you muſt firſt take ſome away by the Arm, and uſe al means to make the Piles or Hemorrhoid Veins to bleed, which is very good; for which you muſt purge with Senna and Rhubarb, and with cooling things.

If you fear an Apoplexy from Melancholly you muſt purge Melancholly, and provoke the Hemorrhoids, and give the Medicines preſcribed for the ſtrengthening of the Brain, eſpecially that pouder which is made of white Amber, Diarrhodon, and Peony Roots.

CHAP.

CHAP. III.
Of Waking Coma.

THE Disease called *Waking Coma*, or *Coma vigil*, is put among sleeping Diseases; yet because it is of another Condition different from the rest, we will treat of it in this Chapter by it self.

This *Coma vigil*, is a Disease in which the Patient lieth with his eyes shut as if he were asleep, when he is awake and distracted; and if you touch him, he presently openeth his eyes, and looks strangely, and falls asleep again, which is hindered by divers strange imaginations and fancies. This Disease *Galen* placeth as a mean, between a Frenzy and a Lethargy, and calleth it *Typhomania*.

The usual Cause of this Disease, is Choller mixed with Flegm, by which humors the Brain is made too moist, or it is swelled or inflamed; from whence, either the Tumor called *Erisypelas œdematosum*, or *œdema Erisypelatosum*. But because those humors are diversly mixed, sometimes a greater proportion of the one than of another, it comes to pass that the Diseases from them are divers: for if Choller be chief, then it is a *Delirium*, or Dotage, and the sick man sleepeth but little though his eyes be shut; but if Flegm prevail, the Patient doth sleep more, and is less doting, and being raised makes less noise, and is not so foolish.

This *Coma vigil* comes by sympathy from Chollerick vapors mixed with Flegmatick that fly into the Head; which happens in Feavers that come from mixed Humors, especially in half Tertians, which are made of a Tertian and a Quotidian. We may safely affirm that this Disease cometh from Vapors, simply hot and moist in strong Feavers, because sleep comes from moisture, and waking comes from heat.

The Diagnosis, or knowledg of this Disease, is plain enough by what hath been said, That they which have it, lie with their eyes shut, and seem to sleep, yet they cannot sleep, but toss and tumble, lift themselves up suddenly, strive to get out of the bed, and then fall again asleep. The divers Causes are easily known from what hath been said.

This Disease is accounted dangerous if the Brain have a Swelling or Inflamation, or if it be overcome with the humors above mentioned, namely, Choller and Flegm; or if it come of vapors which arise from the malignant Humors of a Pestilent Feaver.

If the Dotage, or Delirium be strong, it produceth a Convulsion, for it comes of a Humor or vapor which is very sharp, which falling upon Nervous parts causeth a Convulsion.

A true *Coma vigil* is cured as a Frenzy and Lethargy; and if it incline most to a Frenzy, then the Medicines proper for that are most to be used; if to a Lethargy, then the Medicines proper for that. But a Coma that cometh by Sympathy, is cured by curing the Malignant Feaver from whence it cometh; but the more peculiar Remedies must also be used which draw and keep humors from the Brain in the beginning of the Disease, as bleeding in the Arm and Foot, Vinegar of Roses applied to the Forehead, Clysters, Cupping glasses to the Shoulders, Back, Buttocks, Thighs, opening the Head Vein, applying Leeches to the Temples, and behind the Ears, and laying living Creatures to the Head to dissolve the Humor.

CHAP. IV.
Of the Sleeping Diseases called, Catoche, *and* Catalepsis, *or* Congelation.

THere is some Confusion among Authors about this *Catoche*; for some take it for *Coma vigil*, Waking Coma; others for *Catalepsis*: *Paulus* gave them the cause of their difference; in his Third Book, and the Eighth Chapter, he treats of a two-fold *Catoche*; and first under that name, he speaks of a *Coma vigil*; in the end, under the same name, he speaks of *Catalepsis*. Custom hath brought it to pass, that *Catoche*, and *Catalepsis*, are taken for one and the same Disease in all Authors; the Latins call it commonly *Congelation*, or stiffness of the Body.

It is a Disease seldom seen, and to be admired, and those Authors which have seen the Disease do think it so much worth the observation, as to describe the whol passage and History of it. First of all

all, *Galen* in his first Comment, Prorrhet. Sect. 2. Part 56. mentioneth a story of a School-fellow of his, who when he had wearied himself with long Study, fel into a Caralepsis, or Congelation; *He lay* (saith he) *like a log all along, not to be bent, stiff, and stretched out, and seemed to behold us with his eyes, but spake not a word: and he said that he heard us what we said at that time, although not evidently and plainly, and told us some things that he remembred, and said all that stood by him were seen of him, and could remember and declare some of their gestures at that time but could not then speak or move one part of his body.* But *Fernelius* in his third Book of the Parts of Diseases, Chap. 2. relates two Stories, which are these; *One while he being very studious and writing, was so suddenly struck with this disease, that sitting and holding his pen, with his eyes open, and looking upon his Book, you would have thought he had been hard at study, til he was by calling and jogging found to want alsence and motion. Another I saw like a dead man, lying along, with neither seeing, hearing, nor feeling when he was pinched: but he breathed freely, and whatsoever was put into his mouth, he presently swallowed; if he were taken out of his bed he did stand alone, but being thrust he would fall down, and which way soever his Arm, Hand, or Leg was set, there it stood fixed and firm: you would have taken him for a Ghost, or some rare Statue.*

You may read the like Stories in *Schenkius, Marcellus, Donatus, Rondeletius, Jacotius*, and others: From whom you may gather, That in this disease there is found a destruction, or hinderance of the internal and external Sences with a stiffness of all the Members; and somtimes the Sences are not so much hindered but the sick party heareth those that speak unto him; somtimes the Members are not so stiff, but they may be bent and bowed by them that stand by, and put into divers Postures.

The Causes of this Disease are divers: *Galen* in his Comments, Aphor. 3. Sect. 2. saies that a Catalepsis comes from a cold distemper of the Brain, which distemper chiefly seizeth upon the hinder part of the Head, makes it stiff and thick, from whence the Nerves proceeding are also made stiff, and such a distemper may seize upon al the Nerves, whether it come of an external or an internal cause: but some question this cause, supposing that no living body can be so cold as to have such a Congelation: But *Galen* answereth this in his 5. Chap. of his Book of the Difference of Diseases, by a Reason taken from Experience, in these words; "For those who in a journey are taken with cold, "which is unto death, are thus stuff, whom the Greeks call *Emprostotonos*, or Bowers forward; "*Opistotonos*, or Bowers backward; *Tetanos* extended streight: and others that are killed with "cold are taken with this Catoche or Congelation. Therefore *Galen* teacheth us, that a Catalepsis may be got by external cold, and Reason may easily perswade us to it; for they which are killed upon the way with great cold, do first grow stiff, they have a stiffness or Congelation before they die, therefore cold may bring a less stifness than that which bringeth Death. So we see that Congelation of the Nerves, or Catalepsis, may come of a cold Distemper, and the sooner if it be mixt with a dry distemper.

But this Disease is most often gotten by a cold and dry distemper joyned with matter, that is an Humor or Melancholly Vapor, from which cometh a Constipation or Congealing of the hinder part of the Brain, an extention of the Nerves, and also a stiffness of the same; from this humor it cometh (I say) not only in respect of its quality, which is cold and dry; but also in respect of its quantity, which by repletion makes a distention, or strerching forth of the Nerves.

Aetius in his sixt Book, and fourth Chap. saith, that a Congelation may be caused of blood: Unto which thing *Rondeletius* consents, saying, that it comes to pass when the Veins and Arteries of the Brain are so full, that the Body groweth stiff, and distended or stretched out like those bodies that are congealed with cold weather: he confirms his Opinion by a History of a Noble woman taken with a continual Feaver, called *Synochus*, who had in the nineteenth day a Congelation, which was cured by a large flux of Blood from her Nose.

Semmertus hath found out a new cause, which he saith is a congealing Spirit, by which the Animal Spirits are fixed, and made immovable: he denies that the force of congealing and fixing depends upon a cold and dry distemper, but riseth from some hidden quality. Such Congealing Spirits are found in the greater World, as in Thunder, when men are thereby made stiff, and as it were congealed: As *Cardanus* reports of eight Mowers, which supping under an Oak, were struck with Thunder so as they kept the same shape of Body, the one seeming to eat the other, to lay hold of the pot, another to drink, when they were all dead. It is usually reported that Wine wil be congealed in the Vessel by the spirit of Thunder: In Earth-quakes, many times such Spirits break forth suddenly out of the Earth, as make men and other living Creatures to be stiff and stark. Moreover, *Semmertus* addeth, that there is great congealing force in Nitre and other Minerals; he brings no Examples: We shal only bring one Instance taken from Lead, whose Vapor doth so fix and congeal Mercury, or Quick-silver, that it becomes thereby malleable, or to be beaten with the hammer.

This Opinion of *Semmertus* were not wholly to be rejected, if he had not made this the only cause of the disease, and cast off al the rest; which when they are allowed and confirmed by *Galen*, and

the best of Authors are not easily to be cast off and denyed. Nor is it needful that we fal to hidden Causes when there are enough visible and manifest, able to produce such effects as is before declared. And when *Sennertus* saies that this his congealing spirit is caused of a melancholly humor, he seemeth to differ from the common Opinion, which is, That a Congelation cometh of a cold and dry or Melancholly vapor.

The Knowledg of this Disease, or Diagnosis, is manifest from the Stories of *Galen* and *Fernelius* already mentioned; for the evil befals a man quickly, and leaves him in that posture in which it found him; and keeps him unmoved as if he were congealed: The diversity of Symptoms which we propounded before, is seen plainly. We foretel this Disease by the same signs as we do other sleeping Diseases, as the Symptoms are greater or less, so is the Disease more or less dangerous.

The way of Cure is Two-fold either in the time of the fit, or out of the fit: In the fit you may use those Medicines which are set down for sleeping Diseases: Out of the fit you must labor to cure Melancholly, the disease so called, if the Congelation come from a Melancholly humor or vapor, which is the most common cause of it; but if a cold distemper either inward or outward give this Disease a beginning, the Remedies which cure it are to be taken out of the first Chapter of this Book. And lastly, if plenty of blood have begot this Disease, or doth maintain and nourish it, it is very proper to diminish it by opening a vein.

You must advise the Patient to a hot and moist Diet, as in al Diseases that come from a Melancholly humor.

CHAP. V.

Of the Palsey, or Paralysis.

A Palsey, is the loss of Sence and Motion in some parts of the Body, by reason of the stopping of the Passages of the Animal Spirits.

There are many kinds of Palseys; for either it is in all the parts of the Body below the Head, and then it is called παραπληγία; or else it possesseth only one side of the Body, and then it is called Ἡμιπληγία; or it possesseth but one part of the Body, and then it is called a *Particular Palsey*; although some Authors use all these terms, as *Paralysis*, *Hemiplegia*, *Paraplegia*, *Paresis*, and *Resolutio*, promiscuously for one and the same disease, which is a loss to Sence and Motion in any part of the Body.

There is therefore a double Palsey; one called *Perfect*, in which Sence and Motion is quite gone; another *Imperfect*, in which Sence and Motion are decayed and diminished, and if it be a smal diminution, it is not a Palsey, but a Numbness or Dulness, called *Torpor*, or *Stupor*, which is the way to a true and perfect Palsey, and the forerunner thereof.

There is another kind of Palsey, which is, When the Motion is hurt, and the Sence not; or when the Sence is hindered, and the Motion not.

The Causes of a Palsey are generally al those which hinder the passage of the Animal Spirits into the Nerves and Muscles.

The chief of al is a wateriſh Humor, which by stopping, compressing, condensing or making thick, refrigerating or making cold, hinders the passage of the Animal Spirits.

This watery Humor comes from the Brain, and fals upon the Nerves and Marrow of the Back: So a light Apoplexy turns into a Palsey, when the Humor that caused it falls from the Head upon the Marrow and beginning of the Nerves, and so gets into the substance of them, and shuts up those insensible Passages through which the Spirits come to the Parts; or descending by the hollow of the Back-bone, and by the Marrow of the Back and running upon the Nerves, it compresseth and streightneth them, whereby the Animal Spirits are hindered in their Motion.

Moreover, The same Humor may so thicken the substance of a Nerve by its coldness, that it cannot be passed through by the Animal Spirits.

And lastly, The Passage of the Animal Spirits to the parts of the Body may be so hindered by a simple distemper in cold and moistness, that the Native temper of a Nerve, and the heat in it may be destroyed, and the Animal Spirit not perform his office; for the heat of the Animal Spirits must be joyned with the Natural heat of the part, for the performance of its Office.

There is a Controversie whether other Humors may be the cause of a Palsey which we will not omit though they are very seldom mentioned by others.

Trallianus in his first Book, Chap. 6. reports of a certain man that fell into a Palsey through sadness and grief, and after taking of *Hiera* he became immovable without motion, and had died if he had not used al moistening things for his meat and drink, and other things to bring him to a temperate condition,

condition, especially many Baths and Oyntments of *Hydrœtrum*, that is, of Water and Oyl beaten together.

Paulus in his Third Book, Chap. 28. and 43. talks of a Palsey which came of a Chollerick Chollick, which is cured by cooling means: and in our time the Chollick of the People of *Poitteurs* in *France* is very remarkable, for it turns for the most part into a Palsey; and all men of understanding acknowledg it to proceed of a Chollerick matter, of which I shal speak more at large in my Treatise of the Chollick. An example is given by *Forestus* in his 97. Observation, and his tenth Book, of a yong man who had an extenuation for want of nourishment in his Limbs; and when he grew worse by hot and dry Medicines, which Physitians prescribed for him, was at last restored only by the taking and applying of moistening Medicines.

And Reason doth cleerly shew this: for Choller, Melancholly, or any other Humor falling upon the Nerves; if they fall upon them inwardly, they may stop the insensible passages of the Nerves, or if they fall upon them outwardly, they may so press upon them that they may bring a Palsey. Nor do the Reasons which *Rondeletius* gives to the contrary any way convince; when he saith, That Choller and Melancholly do rather dry, than soften and mollifie the Nerves; and Choller is more likely to produce a Convulsion by his sharpness and griping, than a Palsey: For although commonly a Palsey be called a Resolution and softening of the Nerves, which is alwaies in a Palsey that cometh of flegm, yet it is not requisite that a Resolution of the Nerves should be in every Palsey, because it comes more properly and essentially from a stopping and hindering of the passage of the Animal Spirits; which when it may be caused by a compression or straitening of the Nerves, and the like; it doth not alwaies proceed of softening and mollifying. But the opinion of a Palsey coming from a relaxing and softening of the Nerves came from hence; namely. Because the parts which have the Palsey being not able to be stretched forth, seem as it were to be relaxed and softened; for the motion of parts is by the extension or stretching forth of the Muscles, and by the contraction or drawing together of the same to their Original; which extension when the parts do want, they are said to be relaxed although they have neither been extraordinarily moistened nor softened.

Moreover, Since there are divers sorts and degrees of Choller, it is not necessary that every sort should have such acrimony and sharpness as is able to beget a Convulsion.

Furthermore, There is a various mixture of Humors, and flegm, or water may be mixed with that choller which produceth the Palsey, and so contemperate or mitigate his sharpness. Such a mixture doth often happen in Bastard Tertian Feavers, which are probable to be those which *Fernelius* saith turn into Palseys.

Finally, This is very manifest from the Scorbutick Palsey, or that which is joyned with the Scurvy, which hath often a Convulsion accompanying it (as *Galen* in many places, and *Sennertus* in his Book of the Scurvey, the fifth Chapter) and albeit a true *Scorbut* or Scurvy is seldom seen in our Country, yet we often see certain Scorbutick infirmities, in which some symptoms of the true Scorbut do evidently appear. And therefore in our 74. Observation, and the first Centaury; and in our 98. Observation, and the second Centaury, were given two examples of Scorbutick Palseys accompanied with Convulsions.

There may be divers other Causes of a Palsey which are little observed.

As first, A cold and moist Distemper simple and without matter, may by congealing of the Spirits, not only hinder their passages and influence upon the parts, but also by destroying the temper of the Nerves, make them uncapable of receiving the animal Spirits whereby they have Sence and Motion: and this cold and moist distemper from overcoldness of the air, or from the touching of a cold thing; as *Galen* teacheth 4. *de Loc. Aff.* Chap. 4. of a certain man who (when in a cold season, and a great storm, he had wrapt his wet Cloak a long time about his Neck) fel into a Palsey in his hand, the Nerves which come from the Neck and Marrow of the Back-bone, being thereby made too cold and moist.

Some of our late Writers have reported, That a Palsey may be procured by a stupifying or numbing quality, which is inherent in some Medicines and Poysons and sometimes in the humors themselves. And hence they say comes that Palsey which is caught by touching of the Torpedo or Cramp-fish: but it is not so much to be termed a Palsey which cometh by that way, as a Stupor or Stupifaction and numbness: such like as that which Goldsmiths and Gilders have often by the touching and much using of Quick-silver; and Looking-glass makers also which is often seen in *Venice*. And *Platerus* supposeth that Wine by narcotick or stupifying quality begets Palseys and Numbness: although others differ from his Judgment, yet *Fernelius* seems to favor his Opinion, affirming in the place above cited that he once saw a man whose skin by gluttony and drunkenness was all over stupified and insensible. And *Petrus Fabius* in his Notes upon *Altimar*, Chap. 14. relates a story of a certain Barbar, who after he had been strongly tipling of Wine, awaked at mid-night, and fell suddenly into an universal Palsey of all the parts of his Body beneath his face, so deprived of Sence and Motion that he felt not when he was cut and scarrified with a knife, nor when he was pricked deeply

with needles: But his surfet and drunkenness being past, he was cured in the space of three daies; only by revulsions, and resolving Oyntments applied to the back: Notwithstanding this Author doth not impute this Palsey to the Narcotick or stupifying quality of the Wine; but to those gross vapors which arose from his surfet, and stopped the Nerves, and this cause may be accounted among others that produce this Disease.

We have shewed in our Treatise of sleeping Diseases, That there is a stupifying quality in corrupt and malignant Humors, which being carried to the Nerves, may hinder their Actions: and since the Humors which produce the Scorbut have a venemous and malignant quality, they may also have a stupifying force which may cause also a Palsey with the Scorbut, or a Scorbutick Palsey; although (as we said before) an obstruction or stopping or pressing of the Nerves may be sufficient to cause a Palsey alone.

Moreover, Tumors growing by the Back-bone, and its Nerves, may without doubt cause a Palsey by pressing upon the Nerves.

So the cutting and pricking of a Nerve may produce the same effect.

The dislocation, luxation, or making loose of any of the Back bones, or other Joynts, may cause the same by pressing upon the Nerves.

And lastly, The Condentation or thickning of the Nerves may hinder the influence and passage of the Spirits which comes either by too much exsiccation, or drying, or of a gross Earthy Humor which is taken into the substance of them.

So in those that have the Leprosie called *Elephantiasis*, the sence and feeling of many parts is lost by reason of their growing too thick and hard by an Earthy and gross Nourishment which they receive.

The Causes of different Palseys are these: In a perfect Palsey, which supposeth a perfect privation of both Sence and Motion, there is more plenty of the matter, which causeth it by a general obstruction, or stopping and binding of the Nerves. But in an imperfect Palsey there is less matter to stop and bind the Nerves, whereby it comes to pass that the passage of the Animal Spirits is not altogether so closed up, but it wil suffer some portion of them to have their recourse.

Sometimes the Motion is hindered, and the Sence not; because there is more vertue to cause Motion than to cause sence or feeling, in regard feeling is a kind of passion; but Motion consists altogether in action. Sometimes the Sence is hindered, and not the Motion, for in some parts of the body those nerves and their branches which serve for sence, do not serve for motion: as those nerves which are in the skin, if they only be hurt, the Sence only is hurt, which is seen in a particular Palsey, which is in one part only of the Body: But if the chief nerves which are carried to the Muscles be hurt, the sence cannot only be hindred, but the motion also.

The Diagnosis or Knowledg of this Disease is directed to three things; namely, The kind or sort of the Disease to the part affected, and to the cause that produceth it.

We may easily know what kind of Palsey it is, because the want of motion, and the privation of sence, are to be discovered by the eye.

It is harder to know the part affected; but it is found out by the knowledg of Anatomy, which declareth the original and joyning of the nerves.

For if the right side of the face or left hath the Palsey, and no other part be hurt, the Brain is only hurt in that part from whence the nerves are brought that come to those sides of the face: But if those parts under the head be hurt, together with the Face, then it is a sign that the Back bone is hurt as well as the Brain: And if the parts beneath the Head are hurt, and not the face, the fault is only in the Back bone: If half the Body have the Palsey, only one half of the Back bone is affected; but if the whol body suffer, then is the original of the Back bone hurt. When the Palsey is in the Legs, the part affected is about the bottom of the marrow of the Back, and the *Vertebræ*, or turning Bones of the *Os Sacrum*, and so we must search out for the place whence the nerves spring, which are brought to that part which is troubled with the Palsey.

Sometimes also the searching into the outward Cause doth much avail for the knowledg of the part affected: Two examples whereof are brought by *Galen*; one whereof we mentioned before out of his fourth Book, *de loc. affect.* chap. 4. concerning a man in a cold stormy time wrapt his wet cloak so long about his neck til he fel into a Palsey in his hand. Another is in his first Book, *de loc. affect.* chap. 5. of *Pausinias Syrus*, who lost the sence of three fingers; and when *Galen* understood that he fel from his Chariot upon his back, he concluded that some part was hurt in the original of that nerve which comes from the seventh *Vertebræ*, or Spondil; therefore (after he had in vain applied Medicines to the fingers) he used means to the back, and so wrought a brave Cure.

The Diagnosis, or knowledg of the Causes of this Disease, if fetcht from the primary Causes, the Diseases afore going, and the temperament and constitution of the sick party: And therefore when external cold Causes and moist went before, when the patient is old, when he is flegmatick of Constitution, the weather cold, diet cold and moist, and an Apoplexy hath formerly been, it signifies that a dis-

a disease is approaching from a Cold Distemper, and Flegmatick Humor.

But when a Palsey is caused of a Chollerick Humor, or Melancholly, these signs declare: Feavers did go before, or are present, a Chollerick temper and Constitution, or else a Melancholly one; the coming of the disease in hot weather, Summer or Autumn; the use of Spices, Salt, and other hot Meats; heavy and long passions of Mind, avoiding of chollerick or melancholick humors, sharp and sowr; many sharp defluxions falling upon divers parts, and putting them to pain; and lastly, when pain and a convulsion accompany the diminishing of Sence and Motion, and the patient is the worse when he takes hot and dry things, but the better by the use of cold and moist.

When Tumors, Luxations, or Dislocations, or Wounds, cause a Palsey, they are evident of themselves.

As for the Prognostick part in the Treaty of this Disease, you may foretel events as followeth:

1 A Palsey coming of flegm fixed to the substance of the nerves, is hardly cured because it wil not be easie to discuss or divide the Flegm from the nerves, by reason of their coldness, and their weakness in expulsion or sending forth of that which offendeth, which must co-operate, or work together with the Medicine, and in regard of the deep situation of the Spina and Nerves, so as the whol force of the Medicine cannot reach them, and because the Patient must of necessity continue long in the use of Medicines, which for the most part people cannot endure, and therefore wil not be cured.

2 A Palsey coming after an Apoplexy is seldom cured, and often returns into an Apoplexy, by a new flowing of the same matter into the Brain, which is made weak by the former disease.

3 A trembling coming upon or after a Palsey is healthful, for it signifieth that the passages of the nerves are somwhat open, by which some of the Animal Spirit beginneth to pass, for to move the Muscles.

4 If the part affected hath an actual heat in it, there is hope of health; but if it be alwaies actually cold, it is difficult to be cured.

5 An Atrophy, or want of Nourishment in the Paralytick part, with great paleness, takes away al hope of cure; for it doth not only signifie a decay of the animal Spirit, but a neer extinction of the shews natural heat.

6 If the Eye on that side which the Palsey happeneth be hurt thereby, there is little hope; for it a great want of Spirits in that part.

7 A Palsey in the Legs and Feet is easier cured than in the upper parts, because those Nerves are harder and stronger.

8 In old men the Palsey is incurable, by reason of their want of natural heat.

9 In Winter a Palsey cannot be cured, but in the Spring and Summer it may, if other things agree.

10 A strong Feaver coming upon a Palsey is good; for it may consume the matter which causeth it.

11 A *Diarrhœa*, or loosness coming upon a new and weak Palsey is good, for *Rhasis* saith 1. *Cont.* that he hath seen many Paralyticks cured by a *Diarrhœa*.

The Cure of this Disease is to be altered according to the variety of the Causes: And since for the most part it cometh of flegm and a cold distemper, we must labor chiefly to take away that cause; which we must begin to do by a general clensing and emptying of the whol Body.

As for bleeding it can scarce do any good, because the fault is not in the Blood, but Flegm; and this disease comes for the most part to old men, such as are flegmatick and cold by nature. But if plenty of crude blood unconcocted seems to produce flegm, and to feed it, we may open a vein in his Arm on the found side of his Body, but take but little blood least his weak natural heat should be extinguished.

After we have omitted blood-letting, or taken a very little away, we must go on to take away the antecedent Cause, which is a cold distemper of the Brain; which must be done as before was shewed by Apozemes, or opening drinks, by Pills, sweating Diet, Bags for the head, Emplaisters, Errhines for the nose, neezings, Masticatories, Gargarisms that draw flegm, Vesicatories or Blisters, or Cupping head pouders, Caps, Fumes, Magistral Syrups, ordinary Pills, a strengthening Opiate or Electuary, by Caustick or burning, by digestive Pouder and Baths.

A Diet Drink in this disease ought to be made of Guajacum alone, and his Bark; and after he hath taken a draught, he must have hot bricks applied to the diseased parts, but first they must be quenched in a Decoction of this, good for the head made with white Wine and Vinegar, and be wrapped in a linnen cloth, for the stirring up of the weak heat which is in the parts; and every fourth or fifth day you must purge; but it is better to give a purging drink fifteen daies before you give the sweating, that al the load of crude humors may be better cast out, and afterwards the reliques and remainder may be discussed by the habit of the Body. Which may be thus made:

Take of *the chips of Guajacum, three ounces; of the bark of the same, one ounce; of spring Water four pints: Infuse them twenty four hours: then let them boyl to the consumption of half, adding*

ding in the conclusion one ounce of Senna: Turbith and Hermodacts, of each two drams. Let him take half a pint of this strained every morning for fifteen daies, not sweating.

Apply a Caustick to the hinder part of the Head, or to the sound Arm if the other be affected. If the Legs be affected, apply a Caustick to them both.

After his Diet, let him use for his ordinary Drink, a Decoction of Guajacum, or Water and Honey, wherein hath a little Rosemary been boyled. Let him abstain from Wine, which is very hurtful in this Disease; but if he desire to drink Wine, let Bettony and Sage be boyled therein. And it is far better if in the Vintage time those Herbs are put into a full Vessel of new Wine.

If the Disease be perverse and stubborn, omitting the usual Pills and Magistral Syrup; after his Diet, use stronger Medicines, made thus:

Take *of Pill. Fœtida the greatest, and Pill Cochie the less, each half a dram; of Troches of Alhandal four grains: Let him take them once every week.*

But because the humor must be prepared before every purge, therefore for two or three daies before he takes the Pills, let him take three or four ounces of this following Water every morning two hours before meat.

Take *of the chips of Guajacum, four ounces: of the bark of the same, one ounce: of Sarsaparilla one ounce and an half: of China Root one ounce: of Sassaphras six drams: of Lignum Aloes, Galangal, of each one dram and an half: of the Roots of Angelica, Peony, and Fennel, of each three drams and an half: of Peony seeds two drams: Infuse them for twenty four hours in six pints of Water, and four pints of white Wine: After ad the Leaves of Bettony, and Ivy, and Sage, of each one handful: of the Flowers of Tile Tree, Primroses, Stœchas, or French Lavender, and Rosemary, of each two pugils: of Lavender one pugil: of old Treacle half an ounce: of Citron seeds and bark, of each two drams and an half: of Polipody half an ounce: of Cinnamon six drams: Distil them in* Balneo Mariæ *according to art: and to every two pints and an half of the Liquor, put of* Manus Christi *prepared with the Oyl of Cinnamon, four ounces: Or instead of this Water you may use the Opiate prescribed in the Chapter of the cold distemper of the Brain for the strengthening of the Head: but you had better use the Opiate of* Montagnanus *described in the Cure of the Epilepsis.*

When other Purges do little good, it wil not be amiss to come to the use of Chymical Vomits, if the Patient be strong: and they are mentioned in the Chapter of sleepy Diseases: For they draw the stubborn Humors from the Root, and cure Diseases which cannot be rooted out with ordinary Medicines.

In the daies wherein he takes no other Medicine, let him take the Cephalick Opiate mentioned in Chap. 1. or the Apoplectick Water, or Tabellets, or Lozenges, for sleepy Diseases formerly mentioned.

After Universal Medicines we must proceed to Topical or particular Medicines, for the part, for the stirring up of heat, and recalling the Spirits, and for drying and discussing in the Spinal Marrow where for the most part the Cause of the Disease lyeth.

Therefore let the part affected be dayly rubbed with warm cloaths, but gently, lest that the Natural heat and spirits drawn thither should be again dispersed.

Also let Cupping glasses be applied to the heads of the Muscles of the part affected; and let them be narrow mouthed, and applied very hot; but let them not stand on very long lest they disperse too much. After apply a Plaister of Pitch, and the Rozin of the Pine tree, that what is drawn thither may be preserved. Or rub gently the part benummed with green Nettles, or lay on Sinapisms, or Medicines of Mustard, while the part begins to grow red; but you must not let them lie while they make Blisters, for so the Spirits and Blood would be dispersed, but only til the part made red will not grow white by the impression of the finger, but remain red still.

Afterward anoint the part, and the Spinal Marrow with Oyls, Oyntments, and Balsoms, of which there are many forms in Authors. The Balsom of *Guido* which is prepared by the Apothecaries, is excellent for this purpose. This we use alone, or mixed with other Medicines.

It is made after this manner:

Take *of Oyl of Foxes, Earth-worms, and Castor, of each one ounce: of* Guido's *Balsom, three ounces: of* Aqua vitæ *half an ounce: of Oyl of Rosemary distilled, one dram and an half: Mix them for a Liniment. With which anoint all the Spinal Marrow very hot, and the parts also resolved covering them with warm cloaths.*

This following Oyntment of *Valeriola* in his Observations, is much commended.

Take *of Sage Marjoram, Bettony, Bayes, Rosemary, and Primrose leaves, of each one handful: of the Roots of Time, Acorus, or great Galangal, and Flowerdeluce newly gathered, of each three ounces: of the Oyl of Foxes, of Indian Nuts, and Rue, of each one pound: of Oyl of Terepintine, half a pound: of the strongest Wine one pound: of* Aqua vitæ *half a pound: Boyl them till the Wine be consumed, then strain them, and ad of Serapinum, or Sagapenum, Opopanax, and Bdellium,*

Bdellium, of each two drams: Castor half an ounce: Mace, Nutmegs, Styrax Calamita, Benjamin, of each three drams: long Pepper and Pellitory, of each one dram: the grease of an old Cat, of a Serpent, and a Goose, of each one ounce: the Marrow of an Ox Bone, two ounces: the Juyce of Dwarf-Elder, Sage, and Balm, of each four ounces: of the best Wax, or Bee-glew which the Bees make at their entring into the Hive to keep out the cold, two ounces: Mix them, and with a sufficient quantity of Wax melted into the foresaid Oyls, make them into the consistence of a thin Oyntment; with which anoint all the backbone warm, laying soft wool or linnen cloth warm thereon.

But an Oyntment of greater effect, and less trouble, is made in this manner:

Take *of the Juyce of Squils or Sea Onions, four ounces: the Juyce of Cowcumber and Rue, of each one ounce: Euphorbium, Castor, Sagapenum, Ammoniacum, and Bdellium dissolved in Vinegar, of each one dram and an half: Mirrh, Frankinsence, Pellitory, and Niter, of each one dram: the Oyls of Elder, Turpentine, and Euphorbium, of each half an ounce: Wax as much as is sufficient: Make an Oyntment.*

You must chiefly use the Oyntments in the time of his Diet, after the sweating is wiped off, and after the time of bathing; for then the pores and passages of the Skin being open do more easily receive the Oyntment.

Let the Linnen cloaths that are used after anointing be warmed with this Fumigation.

Take *of Amber, Mastich, and Mirrh, of each one dram: Frankinsence two scruples: Cloves, Nutmegs, Cinnamon, and Mace, of each half a dram: Wood of Aloes half a scruple: Ponder them, and sprinkle them with the spirit of Wine, dry them, and do so five times, and then make a pouder to be thrown upon Embers.*

If the Disease do not yeild to these, Cerats and Emplasters must be laid to the Back.

Take *of the Emplaster of Bettony, Melilot, and Bay-berries, of each one ounce: Frankinsence half an ounce: Castor and Euphorbium, of each one dram: the seeds of Nigella or Gith, the seeds of Water-cresses and Mustard, the Roots of Pellitory, and of Sal Niter, of each half an ounce: with the Oyl of Bricks make them into the form of an Emplaster, which apply upon Leather.*

But this following is better.

Take *of Pitch, Galbanum, Sagapenum, and Ammoniacum, of each one ounce: Pellitory, and Mustard seed, of each half an ounce: Euphorbium two drams: yellow Wax three drams: With as much Oyl of Turpentine as is sufficient make a Plaister.*

You may also provoke sweat in the part by the fume of the Decoction of Herbs and Roots proper for the Head boyled in white Wine, which you must do by putting it into such a Vessel as the Patient being fasting, may sit so covered over it, that the Water may not touch him, but the vapor only. Or you may sweat him with a dry Bath, called commonly *Stuphes*. Let the vapor of the former Decoction be received from red hot flints, upon which it hath been sprinkled.

A Decoction of Burdock and other Dock Roots, is much commended for provoking sweat: But our women use the Decoction of Danewort, called *Ebulus*, for this, and diseases of the joynts, by which they provoke sweat violently.

When the Patient hath sweat enough, get him to bed, and give one dram of Treacle with any proper Water distilled: He must bath thus twice or thrice in a week. In Autumn he must hold his Limbs in the hot Grapes, or Wine-press an hour or two; and afterwards anoint them with a proper Oyntment before mentioned: this is to be done all the time of the Vintage.

Lastly, Sulphur or Brimstone, baths of Niter and Bitumen before mentioned, are very agreeable, and many times go beyond al other Medicines; if the Patient use them some daies for drink, bathing and washing the head; after that anoint it with one of the Liniments prescribed.

The Chymicks have many Remedies for the Cure of this Disease: Among which, the best are, *Elixir Proprietatis*, Spirit of Tartar, and Billom of Galbanum.

All the time of the Disease, let the parts affected be wrapt in the skins of Foxes, Hairs, or Lambs.

A Palsey which comes from Choller or Melancholly requires the same Cure which is prescribed in the Cure of Hypochondriack Melancholly: but when the Disease is more Chollerick, you must make choyce of those Medicines which are more cold.

CHAP.

CHAP. VI.

Of a Convulsion.

Spasmus, Cramp, or Convulsion, is an involuntary and continued retraction of the Nerves and Muscles to their Original.

Convulsion is two-fold: The one Proper, to which the Definition mentioned agreeth: The other Improper, which is called a Convulsive Motion: and they are thus distinguished: In a true Convulsion, the retraction of the Muscles is alwaies; but in a Convulsive Motion, the retraction is every time new. Moreover, in a true Convulsion the Limb is immovable, in a Convulsive Motion it is moved divers waies, as in the Falling-sickness, which is the chief of Convulsive Motions.

They differ also in respect of their Causes; for a true Convulsion, is either from Fulness or Emptiness; but a Convulsive Motion is from Irritation or provocation. Lastly, they are distinguished, in that the true Convulsion comes from the Disease only; the Convulsive Motion from the faculty alone. Which, that Novices may rightly understand, they must know that *Galen* in his Second Book, *de sympt. caus.* chap. 1. hath thus distinguished the symptoms of a depraved Motion: Some (saith he) are only the work of Nature, which is constrained to move so from some violent cause: Others accompany diseases, Nature not assisting their production: Others are by the agreement and concurrence of Nature and the Disease. Now *Galen* by the name of Nature, understands a Faculty: the Operations of the Faculty are, Neesing, Coughing, Yawning, Reaching, and Hiccoughs: But the operations of the Disease only, is Palpitation and Convulsion: But the operation of both the Disease and Faculty, is Trembling, and imperfect Palsey, or Resolution.

From *Galens* words above mentioned, there ariseth a great difficulty, when he mentions the Hiccoughs in the operations of the Faculty; for it continueth by Irritation, or provocation, and is a Convulsive Motion: But *Galen* recites a Convulsion among those operations which come only from the Disease. Yet *Hippocrates* in his 39. Aphorism, and Sect. 6. affirmeth that the Hiccough and Convulsion come of fulness and emptiness, and repletion and inanition, or fulness and emptiness make only a true Convulsion. For the resolving of which difficulty, we say that the word Repletion or fulness, in its large sence comprehends Provocation, according to many Authors, because the provoking causes are material, and therefore do in some sort fill the parts in which they are contained; but thus Repletion is not the immediate cause of Hiccoughs, but the mediate, because it doth provoke the part in which it is to expulsion, by its quantity or quality.

Lastly, We must know, and observe, *Hippocrates* and *Galen* do declare a Convulsive Motion by the general name of a Convulsion; so that they cannot be distinguished, but by the differences mentioned.

Again, A true Convulsion is divided into a total one, by which almost the whol body is contracted; and a partial one, which is only in some one Member.

An Universal or total Convulsion, is caused either from the Brain, when the Muscles of the Face are pluckt together as well as the whol Body: Or from the Spinal Marrow, when the Muscles that move the Head, and Spina or Back, either before or behind, or both, are pluckt and drawn together. Whence arise three kinds of Convulsions. The first called *Emprostotonos*, when the Body with the Neck and Head, is violently contracted and drawn forward, so that the Chin is joyned to the Breast, and the Body looks like the keel of a Ship; nay, it is sometimes like a Bow, and sometimes round, and the Head of the Patient is joyned to his Knees, and then the two Muscles which bend the Head forward are chiefly affected. The Second is called *Opistotonos*, when the Body is drawn backward, and in that, either the twelve Muscles which extend the head, or some of them are drawn together. The third is called *Tetanos*, when the Muscles both before and behind, are equally contracted, and the parts drawn by the opposite Muscles being ballanced remain stiff and straight, and that is called *Morus Tonicus*, which is a most violent springing from the contention of al the Muscles.

A Particular Convulsion is made from the contraction of the Muscle of some part coming from the hurt of that Nerve which is ordained for his motion, and sometimes it hath a peculiar name from the effect or symptome. So the Convulsion of those Muscles which move the Eyes, is called *Strabismus*: of the Jaws and Temples is called τρισμὸς. The Convulsion of the Mouth by Contraction of the broad Muscle on the one side, is called *Spasmus Cynicus*, a dog Convulsion, and a wresting of the mouth; but if the contraction be on both sides, it is called *Risus Sardonicus*, or a grinning. But the wryness of the mouth may be without a Convulsion, namely, from the Resolution of one Muscle, which being resolved, the muscle on the other side draws it to the sound part, and there is a distortion

on or wryneſs which is improperly called a Convulsion: The Convulsion of the muſcles of the Yard is called *Satyriaſis*, or *Priapiſmus*. Other Convulsions want proper names.

But the immediate cauſes of a Convulsion according to the Opinion of *Hippocrates* and *Galen*, are Repletion and Inanition, or fulneſs and emptineſs as above mentioned. And this Opinion is confirmed by the Example of a Lute or Harp ſtrings, which uſe to be ſtretched; which Inſtance *Galen* doth bring moſt elegantly in his Book of Palpitation, of trembling and ſhaking, chap. 8. and his third Book of Parts affected, chap. 6. and his ſecond Book of the Cauſes of Symptomes, chap. 2. and his Comment upon Aphor. 39. Sect. 6. For ſaith he, while the ſtrings are moiſt and filled with humor, as it falls out when the wind is Southernly, they are ſtretched, and ſo broken; and when they are over dry, as it happens in Northern weather, they are contracted, and alſo broken. So the Reins of a Bridle drying too neer the fire, are contracted when they were before extended with too much moiſture: the ſame befals the Nerves, which being either too full of moiſture, or too dry, are ſtretched and contracted; and the Muſcles into which they are united, are ſo drawn back to their principal or original, from whence all the Body hath a Convulsion.

The Mediate Cauſes of a Convulsion, which make Repletion and Emptineſs, are divers. And firſt the Cauſes of Repletion are recited by *Galen* in his Book of Trembling, chap. laſt, to the increaſe of flegm, and inflamation, a wateriſh Humor flowing to the Nerves, is ſuppoſed to ſtretch them in their breadth, which muſt needs make them ſhorter.

But here is a very great difficulty which is propounded by divers Authors, but is reſolved perfectly and plainly by none: namely, what difference there is between the cauſe of a Palſey, and of a Convulsion, when both come from a water flowing upon the Nerves: why that matter which makes a Palſey (which ſo fills the Nerves that it ſtops all their paſſages or pores, whereby the Animal Spirits are hindred in their motion) doth not alſo ſtretch the Nerves in breadth, and cauſe alſo a Convulſion; and why the matter cauſing a Convulsion, filling the Nerves, doth not alſo ſtop the paſſages, and cauſe a Palſey, when contrarily in a Convulsion the feeling remaineth, and the part affected for the moſt part is very much pained? For the reſolving of this doubt, Authors are much divided; and the moſt ingenious of them all, confeſs that is beyond their capacity. Moſt witty *Averroes* conſidering of this Point, breaks forth in this expreſſion: *I would I knew the reaſon* (ſaith he) *why the Nerves are extended in their breadth, and not in their length.* And preſently after he ſaith: *Know ye that the words of all Phyſitians that write of this Symptome, are more proper to Fidlers and Singers than to Demonſtrators, or ſuch as ſhould make things plain.* And Ingenuous *Argenterius* in his Comment upon the 26. Aphor. Sect. 2. ſpeaks thus: *It is not eaſie to render a reaſon of all things, and eſpecially why Water which is ſaid to be the cauſe of the Palſey, or reſolution of Nerves, and of the Convulſion, ſhould ſomtimes bring one, and ſomtimes another, when it is the ſame matter, and the ſame parts are affected, namely, the Nerves; why ſhould not the ſame Diſeaſe be alwaies produced?* Thus *Argenterius*. The great difficulty of this matter hath diſtracted all Writers into divers Opinions, ſo that ſome have left the Doctrine of *Hippocrates* and *Galen*, among whom are *Averroes*, *Eraſtus*, *Platerus*, *Ceſalpinus*, *Sennertus*, and others, whoſe divers Opinions, and long Diſputations we cannot attend to repeat, for we deſire to be very ſhort, and lay aſide all Controverſies, only adhæring to thoſe things which are moſt neceſſary for Cure. The Opinion of the ſoundeſt Writers, which are unwilling to diſſent from *Galen*, comes to this: That a Convulsion is cauſed of a thick matter, which extendeth the Nerves in their breadth, and contracteth them in their length: and that a Palſey comes of a thin humor which runs through the ſubſtance of the nerve, and ſofteneth it, but doth not open the pores and paſſages. But this doth not ſatisfie a ſoul that is greedy of Truth: For if a thick humor by filling the Nerve, doth ſtretch it broader, why doth it not alſo fill its pores and ſtop the inſenſible paſſages, and hinder the coming in of the Animal Spirit? and ſo bring a Palſey? and why doth not a Convulsion follow a Palſey in proceſs of time, when a thin humor long ſticking upon a part, muſt needs grow thick, even as the ſerous matter which makes the *Arthritis*, or Joynt-gout by long continuance upon the part, cauſeth the matter which makes the ſtone. Others ſay that in a Convulsion, only the external part of the Nerve which is Membranous and tender, is poſſeſſed with the humor; but in a Palſey, the Internal: but this giveth leſs ſatisfaction: For when the Nerves are for the moſt part ſlender, it is not eaſie to conceive how the humor ſhould only poſſeſs the external part, and not the internal; or the internal, and not the external: Or leaſtwiſe (if this could be ſo) a Convulsion would follow a Palſey, and a Palſey a Convulsion, by the increaſe of the matter; and that which at firſt did only poſſeſs the outward or the inward part, in proceſs of time would ſeize upon the whol Nerve.

Therefore we, although we cannot ſatisfie our ſelves in this great Difficulty while better Arguments are propounded, ſuppoſe that thoſe Objections may be taken off thus: A Convulsion and a Palſey differ in this; A Palſey is made of a pure watery humor without mixture, which doth not extend the parts, but ſofteneth them, as we may ſee in the tumor called *œdema*; but a Convulsion is cauſed of the ſame humor, but not pure and ſimple, but mixed with much wind, by which wind the

Nerves are ſtretched, and the Muſcles alſo which are contracted to their Original: For no cauſe can be thought upon more fit to make ſo great a contraction, than wind, which *Galen* acknowledgeth in his ſecond Book, *de ſympt. cauſ.* chap. 2. and Experience teacheth us, that the greateſt diſtentions are made eſpecially by wind, as we may ſee in the dropſie called *Tympanites*, and the Chollick. And in Convulſions, thoſe are the greateſt which are cauſed of wind, which ſtretcheth and diſtendeth the parts. By this Argument, all the aforeſaid Objections are anſwered: For if it be demanded, Why that flegm or water which maketh a Convulſion doth not bring a Palſey by hindering the paſſage of the Spirits? we may anſwer, That it is in ſo ſmal a quantity, that it cannot ſtop the inſenſible paſſages of the Nerves, and that it is ſo extenuated and made thin by much wind, that it cannot produce a ſtoppage or obſtruction. Or we may ſay that wind is the chief cauſe of Convulſions, which *Galen* acknowledgeth in the place mentioned: And in his 6. Book, *de loc. affect. cap. ult.* he makes the only cauſe of a Priapiſm (which is the Convulſion of the Yard) to be wind.

The other Cauſe of a Convulſion coming from Repletion, which *Galen* mentions in the place cited, is the Inflamation of the Nervous parts, eſpecially in the Original of the Nerves, or neer to its original, by which they are ſtretched; and that Inflamation is either from a cauſe only internal, namely, from a flux of blood upon the part; or of an outward cauſe, as of a wound, contuſion, or bruiſe, or a puncture of a Nerve.

The Cauſes of a Convulſion by Emptineſs or Inanition, are all extraordinary or immoderate Evacuations, by bleeding at the Noſe, or any outward part, by vomit, flux of the belly, or ſweat, as alſo all great conſumptions of the Radical moiſture which happen in ſtrong Feavers, immoderate exerciſe, watchings, cares, immoderate Lechery, hunger and thirſt, and the dayly uſe of Food and Medicines which heat and dry.

This kind of Convulſion from Emptineſs is rejected by many; who ſuppoſe that ſo great a drought cannot be brought into a living Body, as may contract the Nerves; but that is uſual in a Hectick Feaver, or a Maraſmus: theſe men are thus anſwered: Every emptineſs or drineſs cannot make a Convulſion, but that which is made ſuddenly and unequally; by which means there is a ſudden Evacuation or emptying of the Radical moiſture, which makes the parts cling and cloſe together for the avoiding of a *Vacuum* or emptineſs which Nature abhorreth: but if the moiſture be equally drawn from al parts, and by degrees, there is no contraction becauſe the parts made empty are filled with Air.

A Convulſive Motion, is of a ſharp pricking matter which provokes the Nerves; and it is for the moſt part, a humor or vapor ful of acrimony or malignancy, this comes often in malignant Feavers: Theſe Convulſive Motions are cauſed for the moſt part from the Brain and Nerves, ſuffering by ſympathy or conſent, and then it is called *Convulſio Sympathica*: And this Sympathy is either by their plain ſuffering together in reſpect of their likeneſs in ſubſtance and office, and their vicinity or neerneſs; or from an evil quality, or poyſonous air ſent to the original of the Nerves. And it is often cauſed by conſent from the mouth of the ſtomach through an æruginous or ruſt like Choller, through worms, poyſon, or other ſharp matter which gripeth: and alſo from conſent with the womb, as it happeneth in Hyſterical paſſions, or the Mother.

The Diagnoſis or knowledg of a Convulsion is eaſily learned from thoſe things which we propounded in the beginning of this Chapter: For in a true Convulsion, the part is contracted, ſtiff, and immovable, that it cannot be bent at the pleaſure of the Patient; but in a Convulsive Motion the part is ſhaken and toſſed hither and thither.

As to the Prognoſtick; A Convulsion which is in many parts, eſpecially thoſe neer the Brain, is dangerous; as alſo that which is in the Muſcles of the Breaſt, which giveth us to fear a ſuffocation, by reaſon of the ſhortneſs of the Patients breathing.

A Convulsion coming of too much bleeding or purging, is deadly, as *Hippocrates* ſaith in his Aphoriſms: for as *Galen* ſheweth in his Comment, that a Convulsion comes of emptineſs; but it may ſo fall out as it may come of irritation or provoking by the motion of ſharp and chollerick humors to the Nervous parts, or of the malign quality of a venemous Medicine, as it happens after the taking of Hellebore.

A Convulsion from a Frenzy is deadly. *Aetius* affirmeth, that he never heard of, or ſaw any ſo taken, that recovered.

It is better that a Feaver follow a Convulsion, than a Convulsion a Feaver, Aphor. 37. Sect. 2. for a Feaver coming upon a Convulsion, takes away its cauſe: but a Convulsion coming upon a Feaver, ſhews a malignant matter which threatneth death.

Whoſoever are taken with the *Tetanus*, or Cramp ſo called, die within four daies; but if they continue longer, they are cured, Aph. 6. Sect. 5. for the great ſtretching of all the Muſcles hinders breathing, ſo that they are ſuffocated. And we muſt obſerve, that a Convulsion is not the cauſe of death in reſpect of what is done to the Nerves: for a Palſey coming of the like cauſe continues many yeers: but in reſpect of the ſuffocation it brings by the Convulsion of the Muſcles ordained for breathing.

The

The Cure of this Diſeaſe is divers, as the Cauſe is divers.

That which comes of Emptineſs is ſeldom and incurable, therefore we ſhall not inſiſt upon the Cure of it. Authors do preſcribe al kind of moiſtening Medicines, and opening Oyntments. That which comes of provoking or irritation, is from other Diſeaſes, and is comprehended under the Cure of them. It remains therefore that we treat of the Cure of a Convulſion by Repletion, which when it comes of flegm and wind, muſt be cured by removing of them. This is done firſt by blood-letting if it abound, and the party be ſtrong; but it is better to take too little than too much; for blood is an Enemy to that principal Cauſe, which is flegm.

After Blood-letting, or it being omitted if need do not require, you muſt purge with pills which are ſtrong (but have an eye to the Patients ſtrength) according to thoſe forms in the firſt Chapter, you muſt ad to them three grains of Caſtor.

If the Patient will not take pills, he may take Potions, Pouders, and other Medicines preſcribed in the firſt Chapter.

After Purging, if you have not let blood before, apply Cupping glaſſes with Scarrification; otherwiſe without: firſt to the remote parts, then to the parts neer the part affected. But if the Thighs, or Legs have a Convulſion, apply them to the Buttocks and Loyns: if the Arms, to the Neck and Shoulders; laboring alwaies to bring the humor back to its original.

You may alſo with profit apply a Veſicatory to the parts oppoſite to that which is affected.

After the firſt purging, the matter is to be prepared with an Apozeme, preſcribed in the Cure of the cold diſtemper. Make it purging, if ſtrength and other things wil permit; otherwiſe leave out the Purgatives.

The Apozeme done, give him Pills again, putting Caſtorium to them, and to all his Purges.

If you uſe only an altering Apozeme, which changeth the Humors, you muſt in that time give ſeveral ſharp Clyſters, ſuch as are preſcribed in the Chapter of ſleeping Diſeaſes.

Alſo anoint the part with this Liniment,

Take *of Oyntment of Marſh-mallows, ſix ounces; Oyl of Turpentine and Chamomel, of each one ounce; Oyl of Spike three drams; and of Foxes half an ounce; Liquid Storax two ounces: Anoint the part and back-bone often therewith.*

Take *of Oyl of Dill, and Chamomel, of each one ounce;* Unguentum Martiatum *half an ounce;* Oleum Petroleum, *and Spike, of each one dram; Spirit of Wine three drams*

Ducks or Gooſe Greaſe prepared as followeth is much commended.

Take *a Gooſe or Duck that is fat, pluck it, and draw it; then fill it with theſe things following:*

Take *of Sage, Marjoram, and French Lavender, of each one handful; Gum Ammoniacum and Bdellium, of each one ounce; Calamus Aromaticus, Nutmeg, Mace, and Cloves, of each half an ounce: Beat them in a Mortar, and moiſten them with the Oyl of Earthworms; after, put them into the belly of the Gooſe ſowed well together, and roaſt it upon a Spit. Receive the Dripping into a Veſſel half full of Vinegar, and anoint with it.*

But it is ſtronger thus:

Take *of the dripping aforeſaid ſix ounces; the Chymical Oyls of Wax, Nutmeg, and Sage, of each two drams.*

After you have anointed, you muſt cover the part affected with a hot Sheeps skin; and when it is cold, if you have not a freſh one, make it warm again with the Oyl of Dill, or the like hot Oyl.

We apply ſucceſſfully to the part affected, the hot Lungs of a Sheep, as alſo yong Pidgeons, Whelps, and Chickens ſlit in the middle.

Put the part affected into an Ox or Sheeps Belly, or other great Creatures newly killed, and let it remain there while it is warm.

Baths of Head herbs are good, putting to them a third part of Oyl, or anointing afterwards.

Some commend this Emplaſter:

Take *of Colophony two ounces; Roxin and Pitch, of each one ounce; Frankinſence, Maſtich, Ceruſs, of each half an ounce;* Sanguis Draconis, *common Salt, Ammoniacum, and Terepintine, of each two drams; new Wax, two ounces; white Vitriol, two drams; Mother of Pearl, two ounces; Load-ſtone half an ounce; yellow Amber one dram and an half; Oyl of Egs and Roſes, of each two drams: Make a Plaiſter upon Leather.*

Baths coming of Brimſtone are excellent, eſpecially in conſtant Convulſions. Alſo dry Baths of the fume of the Decoction of Sage, Roſemary, Stoechas, Chamepitys, or Ground-pine, Origan, and the like, in white Wine ſprinkled upon ſtones fire hot, or Iron.

It is very good to foment the hinder part of the Head and the Neck with hot *Aqua vitæ.*

Penotus doth wonderfully extol the following Medicine for quite Curing of a Convulſion.

Take *Oyl of Turpentine, half an ounce; Oyl of Cloves ſix drops; of the Mucilage or ſlime of Briony, ſo much as is ſufficient to make a Liniment: Anoint the part affected, and the root of the Nerve which comes unto it.*

Others say they quickly cure a Member with the Oyl of Turpentine, of Wax, Chamomel, and the like, mingled with Spirit of Salt.

The following Liniment is very powerful.

Take *old Butter, and Bacon, of each a quarter of a pound; Bdellium, and Ammoniacum, of each one ounce; Mirrh, and Castor, of each two drams; Staechas and Rosemary flowers, of each one pugil; Nutmeg and Cloves, of each one dram; a Kitten or yong Cat, flead, bowelled, and cut in pieces; Stuff a Goose with these, and roast her; cast away the first dripping which is watery, the next which is fatty receive in a Vessel half full of Vinegar: Anoint the parts affected, and the back bone therewith.*

Sometimes the pain is so intollerable that it must first be cured: For which this is good.

Take *of Oyl of Violets, Lillies, and Chamomel, of each an ounce and an half; Oyl of sweet Almonds, Mastich, and Roses, of each one ounce.*

If you wil have stronger, make this Bath:

Take *of Marsh-mallow Roots, and Lillies, of each one pound and an half; of the Leaves of Origan, Violets, Mallows, Sage, and Wormwood, of each two handfuls; Linseeds and Fenugreek, of each one pound: Boyl them for a Bath; in which let the party sit, not long, but come out as soon as he finds ease: It is sufficient if the parts affected be only bathed therewith.*

Others make Baths only of Oyl, and if the Patient be rich, they boyl a Fox or two in it.

While these are doing, purge the Head with neesing, and chewing, described in the first Chapter.

As also you must strengthen with the Cephalick or Capital Opiate, Apoplectick Water, Treacle, and the like.

Rondoletius speaks thus of his Water of Swallows: A Water made of Swallows and Castor, presently cureth a Convulsion coming of Repletion: You may find the description of it in his Chapter of the Epilepsie.

CHAP. VII.

Of the Epilepsie, or Falling-sickness.

The *Epilepsie*, is a Convulsion of the whol Body, not continually, but by fits, with a hinderance both of the Mind and Sences.

The Word Convulsion, is not here taken properly and strictly for a true Convulsion; but improperly, for a Convulsive Motion: For an Epilepsy is a Convulsive Motion, not a true Convulsion. But we keep the name of Convulsion in imitation of *Galen*, who calls an Epilepsy alwaies a Convulsion.

This Definition is taken out of *Galen*, 3. *de loc. aff. cap.* 7. and *lib. de diff. sympt. cap.* 3. and defines a perfect Epilepsie, in which all the Body is contracted, and all the Sentes both internal and external are abolished. Yet there are imperfect Epilepsies, in which only the Head, or Arm, Leg, and Thigh, or half the Body is only contracted. There is also an Epilepsy in which the mind remains sound, and the external sences, and also the voluntary motion of some parts. I saw a Nun, which in her Epileptick fits had divers contractions, somtimes of the Arms, then of the Legs, somtimes of the Head, afterwards of the whol Body; yet she saw those that stood by and spake; nay, she also endeavored a voluntary motion against the Convulsive, so as she did in a manner dimmish the involuntary motion: somtimes she was in a final fit only, and walked about her Chamber, but with a disorderly motion, leaping and using strange antick postures, by which she caused the rest of the Nuns to be very merry, and she at that time laughed with them, and spake when she pleased.

Every convulsive motion (as I said in the former chapter) cometh of provocation, which proceedeth from the quantity or quality of the matter. The quantity of matter which causeth the disease, burdening Nature, stirs her up to expel that which is troublesom to her. Whence the Opinion of *Galen* is confirmed, which is so disputed by late Physitians, That an Epilepsy comes of an imperfect obstruction of the Ventricles of the Brain; for if the humor obstructing or stopping is burdensom to Nature, the Brain will labor to expel it. In the quality there is no difference, for all agree in this, That the expulsive faculty is stirred up by sharpnes and acrimony, and by any quality which is offensive to Nature.

The Causes stirring up or provoking, are either contained in the Brain, and make a proper Epilepsy, or come from other parts, and so make an Epilepsy by consent or sympathy.

And that provoking or irritation makes an Epilepsy, when the Brain laboring to expel that which is offensive shakes its self, and by consequence all the Nerves which are adjoyned to it.

There

There is in *Galen*, and almost all Authors, a threefold Epilepsy. The first is that which hurts the Brain, in which the Disease is: The second is that which hurts the Brain by consent from the Stomach: The third is when the disease is sent from other parts of the Body to the head: And these have their proper names; The first, as being chief, is called *Epilepsia*; the second *Analepsia*; the third, *Catalepsia*: But (by *Galens* leave) that division is superfluous, and in vain is that Epilepsy which comes from the Stomach separated from those which comes by sympathy from other parts; when all ought to be called *Sympathicæ*, or Epilepsies by consent. Neither is it sufficient to say that an Epilepsy from the Stomach is distinct from others, because it is most frequent since that which comes from the Stomach and Spleen, is as usual and as frequent, if not more.

Therefore we divide an Epilepsy into a Proper one, and one by Consent. Again, we subdivide that which is by consent according to the divers parts from whence these sharp and malignant vapors are sent to the Brain, for there is almost no part in the Body from which a malignant vapor cannot be sent. Two Stories are related by *Galen* in the place quoted; the one of a Boy of thirteen yeers old, who at the first had the Epilepsy in his Leg, after that it ascended into his Thigh and Bowels, and by the sides into the neck til it came to the head, which at first touch made him not able to stand. Another is of a Youth who in the beginning of his fit perceived as it were a cold air to ascend. But it is remarkable and well known, that an Epilepsy comes for the most part from the Guts, the matter that breeds worms, from the Matrix and other parts, and it is confirmed by many Authors.

Therefore it is manifest from what hath been said, how *Galens* Opinion may be defended, who affirms, That a proper Epilepsy comes of an imperfect obstruction of the ventricle of the Brain; which we cannot defend to be the constant cause, as *Galen* seems to grant who laies down no other: but we are rather forced to confess, that it is less usual than the rest.

Nor do the Arguments brought against *Galen* any way convince, the chief whereof are these:

First, As *Fernelius* saith, if an Epilepsy comes from plenty of Humors, it would come most in the sleep, at which time there is plenty of Humor. I answer, That the humor of which sleep is begot, is in the substance, not the Ventricles of the Brain, and therefore doth not stir up the expulsive faculty which resideth most in the Ventricles.

Secondly, *Fernelius* saith, That because an Epilepsy is quickly dissolved, it should turn into a Palsey, as an Apoplexy doth when the humor is cast into the nerves. I answer, That in an Apoplexy, by reason of the weakness of the expulsive faculty which is oppressed by many humors, they are cast into the parts adjoyning; but expulsion being stronger, and more free in an Epilepsy, they are sent to those parts which are ordained by Nature for their discharge. And it is false which *Fernelius* saith, That an Epilepsy never ends in a Palsey; for we have seen a Palsey come after it. And sometimes Apoplexies at their first coming are turned into Convulsions before there be a perfect obstruction of the Ventricles of the Brain; and also many Epileptick men die by an Apoplexy when a little obstruction turns into a total stopping.

Thirdly, Against *Galen* some argue thus: As a compleat Obstruction of the Ventricles totally takes away the functions of the Brain in an Apoplexy: So an incompleat Obstruction would only diminish, not deprave the Functions, nor produce such convulsive motions as are sometimes more violent than sound motions. I answer, That Nature being wholly oppressed by a total obstruction doth not labor for expulsion; but she hath strength enough in a half obstruction to move and stir up the Brain to expulsion. This is confirmed by the Example of a defluxion falling upon the Lungs, which if it fill the whol Lungs, it makes great difficulty of breathing without a Cough, as cometh to pas in an Astma, or shortness of breathing: But if a smal quantity only of humor do fall, the Lungs are stirred up to expulsion, whence cometh a Cough.

The Signs of an Epilepsy are of three sorts: Either they are such as signifie an approaching Epilepsy, or one that is present, or such as shew the difference of Epilepsyes.

The Signs of an Epilepsy approaching, are two-fold: Either they signifie the first coming of the Disease; or some Fit to be at hand. The same signs serve for both, but most surely in those who are actually possessed therewith, do they shew the condition of it in its return; for in those who never had this disease formerly, these signs are doubtful for the most part, and may declare many head diseases; but all of them together may give some certainty.

Therefore al signs of an eminent Epilepsy are to be propounded with this admonition, That al signs do not meet in al; but some in one, some in another, as the causes and constitutions do differ. But that they may orderly be laid down, we must search the originals of these signs, which flow from Animal, Vital, and Natural actions, from excrements, qualities changed, and proper accidents.

In respect of the Animal Functions, and unaccustomed disturbance of the mind and Body, threatneth an Epilepsy, heavines of head, head-ach, vertigo or giddiness, or much sleep, from whence the Body hath no refreshment; troublesom dreams, dulness of mind, or perplexity, forgetfulness, sorrow, fear, dread, sloth, gravenes of actions, snatching and trembling of the parts, dulness of the sences, a down look, clouds and other things flying before the eyes, noise in the ears, a stink in the nostrils,

ſtrils, a ſtiff tongue, and its inordinate Motion, yawning, and neezing.

In reſpect of the Vital Function, theſe with others are the ſigns: Anger, Beating or palpitation of the heart, ſtraitneſs of Breaſt, and alteration in Breathing.

In reſpect of Natural Functions, theſe are forerunners of an Epilepſy; diſdain of meat, or immoderate Appetite, Squeamiſhneſs, heart-burning.

In reſpect of Excrements, theſe are ſigns: Much ſpittle, thin and crude Urine, often Nocturnal Pollutions.

In regard of qualities and proper accidents changed; Paleneſs of Face, and ſwelling of the heart.

A preſent Epilepſy is eaſily known, if it be perfect; but it hath many differences which cauſe difficulty, as we ſhall ſhew.

In a compleat fit all the Sences both internal and external are hindred. The party ſuddenly falls, and the whol Body, or at leaſt ſome parts are diverſly moved: Moreover, there is a ſtaring and thruſting forth of the eyes, gnaſhing of Teeth, a difficult breathing, as in thoſe that are hanged; the ſeed, dung, and urine are ſent forth involuntarily, and about the end of the fit, he foameth at the Mouth and Noſe, which happen only in a vehement Epilepſy, and the fit being ended, he forgets all things he then acted.

Some of the Ancients make three kinds of Epilepſies: One which is like a deep ſleep; another which doth ſhake the body after divers motions; a third which is made of both the former. The late Phyſitians deny the firſt kind, ſaying, That it is more like a Coma, or a Carus than an Epilepſy; and theſe two Diſeaſes cannot be otherwiſe diſtinguiſhed, but that in a Coma is a deep ſleep without a Convulſion, and a Convulſion is a certain ſign of an Epilepſie. But *Avicen* ſaith otherwiſe, namely, That an Epilepſy comes many times without an apparant Convulſion. And experience teacheth us, That many men in Epilepſies have fits like Coma: and it's known to be an Epilepſie, not a Coma, or a Carus by this; The ſleep in an Epilepſie cometh and goeth by fits, when in a Coma it comes all at once.

A true Epilepſy is diſtinguiſhed from an Epilepſy by conſent thus: In the true there appears many ſigns of the Brain affected; as heavineſs of mind, and ſlowneſs, decay of memory, troubleſom ſleep with dreams, dulneſs of ſences, ſlowneſs and idleneſs of Body, pain of the head, and other things. Moreover, the ſick man doth not perceive the fit coming, but is ſuddenly taken therewith unawares, at the new Moon for the moſt part. The due proportion of the inferior parts being without blemiſh do confirm this ſign.

But we may know whether it come from the right or left ſide of the head moſt: By this, either the ſight of one eye is more obſcured, or the hearing more thick with the noiſe of the head on that ſide; or if the right or left ſide be more dull.

But we may know from what humor, eſpecially an Epilepſy cometh by thoſe ſigns which declare when flegm, choller, or melancholly abound.

An Epilepſy by conſent, is thus known: There appear no ſigns of a diſtempered Brain; the Patient perceives his Diſeaſe Coming, and a wind riſing from the parts below: or ſome lower part is weakened, or elſe affected ſtrongly in the time of the fit.

Theſe things following do ſhew that the Cauſe of an Epilepſy is in the ſtomach: Diſdain of meat, an inability to faſt, loathing, vomiting, pain of the ſtomach, gnawing, pricking, and diſtention; ſomtimes beating of the heart, which ariſeth from the Stomach.

That the diſeaſe comes from the Liver or Spleen, appears by often belching and breaking of wind, a ſwelling of the belly with rumbling and noiſe, ſowr belchings, ſtraitneſs of the Midrif, and pain ſomtimes reaching to the back, beſides ſome diſtemper in inferior parts.

An Hyſterick fit, or the Mother, mixt with Convulſions, if a retaining of the Courſes or Seed went before, ſhews that it comes from the Womb.

If the Epilepſy comes from an external part, ſome wind is perceived to riſe from that part, and the matter cauſing the Diſeaſe, ſomtimes tickleth and beateth in the part, which is a ſign there is a fit at hand; and if that part be tied hard, the fit is hindred.

Laſtly, The Signs of worms, ſhew that the diſeaſe come from them, as ſtinking ſowr Breath, itching of the Noſe, pain of the Belly, earthy Excrements, grating of the teeth, ſleepineſs, and the like, eſpecially if ſomtimes worms are voided.

But the extraordinary Cauſes, as Impoſthumation, foulneſs of a Bone, ſtopping of urine, and the like, may be taken from their proper ſigns.

As to the Prognoſtick, An Epilepſy is a Diſeaſe of long continuance, and very ſtubborn and deadly in Infants.

An Epilepſy coming hereditary is incurable; but that which comes from external cauſes, and evil diet, is curable.

An Epilepſy coming before fourteen yeers of age in Boyes, and twelve in Girls, is curable: after twenty five yeers of age it is incurable; out of *Hippocrates*, Aph. 7. Sect. 5. For in the time of ripe-

neſs

ness of Age, there is great store of Natural heat, which is powerful to discuss Diseases. Moreover at that time women begin to have their terms, by which the uncleanness of the Body is purged. Yet although *Hippocrates* supposed an Epilepsy to be incurable after twenty five yeers of age; yet this is not alwaies true, for we find by experience that many have been cured after, although but seldom seen; therefore we may say that the Aphorism is true for the most part, A strong Epilepsy often killeth the Patient in the fit, or it turns into an Apoplexy, or by reason of the strength of the symptomes, and the violent shaking of the Brain, the Fabrick of the Body it is overthrown, and some parts thereof are broken, and it happens sometimes that pieces of the bones called Processus Mammillares, come out of the Nose.

An Epilepsy coming of Melancholly turns sometimes into madness, when the humor is sent from the Ventricles of the Brain into the substance thereof.

The same humor when it is only in the Ventricles of the Brain, stopping them and paining them, causeth an Epilepsy: But when it offends the substance of the Brain which is the seat of the chief Functions, by defiling its Natural temper, and corrupting the Animal Spirits, and darkening them, it makes a Melancholly doting. Hence *Hippocrates*, 6. *epid. sect.* 8. *text* 40. saith, that Melancholly men turn for the most part Epileptick, and Epileptick to Melancholly. But these Diseases thus change in a two-fold respect; either by the change of the matter causing the Disease from its proper seat: and so when one comes, another goes, or by the propagation of the matter, and then both remain.

An Epilepsy coming of flegm turns either into an Apoplexy, or a Palsey.

A Quartain Ague coming upon an Epilepsy, and continuing long, cures it, by reason the matter of the Disease is by degrees consumed by the heat of the Feaver if it be of flegm; but if it come of Melancholly, it is sent from the part affected, to the place where the ground of the disease lieth, that it may supply matter to the new fits.

The Cure of the Epilepsy is two-fold; the one in the fit, the other out of it.

Physitians are seldom called to the Cure of the fit, except it continue over long: in which case those Remedies which we laid down in the Cure of sleepy Diseases, especially the Apoplectick Water, the Cinnamon Water, *Aqua vitæ*, and other Spirits which are very proper to discuss the fit.

Out of your fit you must vary your Cure as the Cause requires.

And first we shal lay down the Cure of a proper Epilepsy, which consists in Evacuation of humors throughout the Body, in the discussing of the matter of the Disease, and rectifying its evil qualities; as also in strengthning of the Brain. And since the matter offending in a true Epilepsy is for the most part Flegm, we will direct our general Cure in opposition to that; admonishing yong beginners that if Choller or Melancholly abound, they would prepare and purge them. But the specifical Remedies are alwaies the same, of what cause soever the Disease doth come.

For a perfect Cure we must thus proceed:

First, Give him a Potion to purge Flegm, or some other Medicine to that purpose, which the Patient can best take, mentioned in the first Chapter. First giving a Clyster, if his body be bound.

After, if there be signs of Repletion, or if the party be Sanguine he must be let blood; otherwise not.

Afterwards the Universal Cure, of the cold distemper of the Brain is to be followed, with this Caution, That to the Decoctions, Apozemes, Diets, Sweats, Syrups, Chewings, and head Pouders, you ad the Root and Seed of Peony, and Misleto of the Oak, which all ancient Authors hold to be most proper for the Cure of this disease.

For his Diet, Guajacum is the best Sweater: By the use of which *Jachinus* reports that he cured many, but let it be continued thirty or fourty daies.

To every Dose of the Sudorifick Decoction, put some drops of the Spirit of Vitriol, which is thought very proper for the Epilepsy.

You must often use the common purges, namely, the Pills, or Magistral Syrup once or twice a week if the Patients strength will suffer them, and continue purging for divers Months: and sometimes use stronger purges, as *Massaria* ordains, who saith it comes from hence that Epilepsies are not, or seldom cured, because the Physitians alwaies give weak Medicines.

For this cause, the Chymicks use Minerals, which draw the Humors from remotest parts, but not without much danger, especially if they be not well prepared. But if good success may be expected from these Chymical Medicines, it is to be found in Mercury or Quick-silver, either by its self, or with Gold calcined in a Furnace of Sand, with a long continuance of fire, watching narrowly lest any crude portion of him remain, which would make the Medicine very violent; otherwise it will work gently, if given in the quantity of four or five grains in Cochie Pills, or any Extract that purgeth flegm, or all humors.

A new Epilepsy is sometimes cured with Salt of Vitriol; as *Angelus Sala* saith, that he hath cured at thrice taking of it, an Epilepsy, giving it every fourth day. And after in his 77. *Curat. Cent.* 2. he boasts

boasts that he cured a Girl of eleven yeers of age, of an hæreditary Epilepsy, with Stibium calcined, given only thrice.

Quercitan's Syrup of Tobacco, is very good for the Cure of the Epilepsy: But it is not to be used but by a wise Physitian, it is so vehement.

Instead of the Opiate before mentioned, this may be used, which is more Specifical.

Take *of the conserve of Rosemary flowers, Peony, and Bugloss, of each half an ounce: Citron barks candied, two drams: of the pouder of Misleto of the Oak, Peony seeds, and Elks Claw, of each half a dram: Mans skull that was not buried calcined white one dram and an half: Coral, Pearl, and Harts-horn prepared, of each four scruples: right Bezoar stone, one scruple*: Diamoscu dulce, Diatrion santalon, *of each two scruples: old Treacle, and* Confectio de hyacintho, *of each one dram: Spirit of Vitriol fifteen drops: With the Syrup of candied Citron barks, make an Opiate; of which take the quantity of an Acorn, or Filbert, drinking a little Cinnamon water after it.*

But this following is most powerful for the rooting out of the Disease after the Body is well purged.

Take *of Conserve of Bettony Flowers and Rosemary Flowers, of each two ounces and an half: Eringus Roots candied, and Mithridate, of each one ounce: the pouder of Sassaphras six drams: Castoreum three drams: Mans Skull not buried, and Elks hoof, of each two drams: of the roots and seeds of Peony, and Gith seeds, wild Rue, and Pellitory, of each one dram: Oxymel as much as is sufficient, make an Opiate, of which take two or three drams.*

The Opiate of *Montagnus* goes beyond all, by which many have been cured: It is made thus:

Take *of the Roots of male Peony, Stœchas, and Pepper-wort, of each ten drams: Agarick five drams: Pellitory, Carua seeds, Dill, Assafœtida, and Aristolochia or round Birthwort two drams and an half: of the juyce of Squils, and Honey, of each one pound and two ounces: Boyl the Squils and Honey gently to a good consistence; then ad the Pouders, and make an Electuary: of which, take two, three, or four drams, as age requires, continuing it twenty or thirty daies.*

After the use of the Epispastick Plaister, you must apply a Vesicatory to the fore part of the head, and a Cautery to the neck.

But a Seton or Skein of Silk drawn through the neck, draws the Humors more strongly out of the Brain. And *Fabricius Hildanus* reports that he cured a Youth that had the Falling-sickness every day, and had used all means he could get, in vain; and a Girl of eighteen yeers of age, born so, only by the continuance of a Seton.

If you conjecture that the vapors rising from the parts below, and flying into the Brain, produce this disease, and nourish it; it is good to apply a Caustick to the fore part of the head, avoiding the Sutures: for *Carolus Piso* reports that he cured two by so doing. Also if the Disease come from the inferior parts, the Waters of Germany called *Aquæ Acidulæ* do work wonders, and sometimes root out the Disease, if first evacuations have been sufficiently made, and the veins inferior have been opened.

But an Epilepsy coming from the Matrix requires a special Cure.

The Pouder of Elder Berries described by *Quercetanus*, given three daies together, the quantity of a dram with some Hysterical Water, is good.

If al means fail, the last remedy is, to open the fore part of the Skul with a Trepan, at distance from the Sutures, that the evil air may breath out. By this means many times desperate Epilepsies have been cured, and it may be safely done if the Chyrurgeon be skilful.

Let the Patient drink ordinarily Hydromel, or a small Decoction of Guajacum with Peony Roots.

Let him carry a Bag about his Neck made thus:

Take *of Peony Roots and Misleto of the Oak, of each one ounce: Elks hoof two drams: Nutmegs, Cloves, and Mace, of each two drams: Rue and Hyssop, of each one dram and an half: Pouder them and put them in red Sarsnet to be hung about his neck that he may often smel to it.*

After Universal Evacuations, among other Medicines you must use Specifical Medicines, which you may find in many Authors. We shal set down some of the best (besides those Opiates prescribed) which are of no small Consideration in the Cure of this Disease.

Rondeletius commendeth much the Water of Swallows, which *Quercetanus* borrowed of him in his Dispensatory. Treacle Water is of no less value, and *Aqua Cephalica*, and *Syrupus Antepilepticus*, mentioned by *Quercetanus*.

The Root of wild Valerian is much commended by *Fabius Columna*, that (once or twice taken) it cures the Epilepsy. And he reports he gave it to many of his friends, who affirmed that (under God) they were cured by it. The Dose is half a spoonful in Wine, Water, Milk, or any other proper

proper Liquor; but it is given to Children in a leſs quantity in Milk.

The Chymiſts commend the Spirital mixture, than which no better Medicine can be required (as they ſay.) The Compoſition whereof is as followeth:

Take *of the ſpirit of Vitriol, one part*; *ſpirit of Tartar, three parts*; *Treacle Water with Camphire, four parts*: *Mix them, and let them ſtand in a glaſs well ſtopped three or four weeks.*

The Doſe is one dram in any proper Liquor, or Vehiculum to ſwallow it down with.

Rulandus uſed much the *Oleum ligni Heraclei* (which the Chymiſts affirm to be of Coryline, or the Oyl of the Hazel-nut, or Filbert tree) And in his Centuries he relates ſome paſſages of them, which by the uſe of the Medicine were cured. The Doſe is three or four drops in any proper Liquor for five daies together.

The Oyl of white Amber is inferior to none, if not the beſt, being drawn by a good Artificer, and ſmelling of no fire, but ſending forth a moſt fragrant ſcent. The Doſe is from half a ſcruple, to one ſcruple.

The Oyl of Box-tree taken by four drops at a time, in four ounces of the Water of the Tile-tree flowers with four drops of the Spirit of Sulphur for ſome certain daies together, is very powerful, and is thought by many to be the true Oyl of *Lignum Heraclei*.

Crato calls the Natural Cinnaber the Load-ſtone of the Epilepſy, and makes this Pouder of it.

Take *of Natural Cinnaber, or Vermilion, which is cleer, and finely poudred half an ounce: red Coral, and Pearls prepared, of each two ſcruples: Saffron one ſcruple: the Leaves of Gold five: Grind them all very finely upon a ſtone.* The Doſe is from ſix grains to a ſcruple in the time of the fit, in ſome proper Liquor.

The Cinnaber or Vermilion or Antimony, which is taken after the extraction of *Mercurius vitæ*, is thought by Chymiſts to be of no leſs vertue than the former: for if it be mixed with an equal weight of the Magiſtery of Pearl, Coral, and pouder of a dead Mans Skull, it is a ſpecifical Medicine in an Epilepſy; though it be old, the Doſe is from ten grains to fifteen in a proper Liquor.

The Cure of an Epilepſy by conſent is firſt to begin with the part affected, and that part is to be cleanſed and ſtrengthened by convenient Medicines taken out of thoſe proper Chapters wherein they are mentioned: not omitting Specifical and Antepileptical Medicines, which are alwaies to be uſed in every Medicine. But if the Epilepſy come from any external part, beſides the Univerſal Cure, we muſt have a ſpecial eye to that, and the malignant matter therein contained, is to be evacuated by Cupping-glaſſes with ſcarrification, Veſicatories, and Cauteries. And if the Diſeaſe continue after the Ephar or Scab is fallen off, you muſt apply the Cupping glaſſes again; and at laſt, when neceſſity urgeth, you muſt apply an actual Cautery. If the diſeaſe come from a foulneſs of the Skul, that is to be taken away with the Trepan and burning.

CHAP. VIII.

Of the Falling-ſickneſs in Children.

BEcauſe this Diſeaſe is common among Children, and uſeth to be very dangerous unto them, therefore we ſhal add a peculiar way for their Cure by it ſelf, becauſe it is very much differing from that in elder People.

Firſt therefore make the Belly ſoluble with a Suppoſitory or Clyſter.

After, or about the ſame time, give a purging Medicine proportionable to the ſtrength of the child: We need not fear to give of the Electuary of Diacarthamum two drams to a child of one yeer old, if the Diſeaſe come of corrupt Milk.

Take of *Hiera Picra half a ſcruple, or one ſcruple*: Pulvis de gutteta *half a ſcruple*: *Give it with a proper Liquor, or with Honey of Roſes.*

Apply Cupping glaſſes to the Shoulders and Loyns, and with Scarrification, if the Child be one or two yeers old.

Apply a Veſicatory to the hinder part of the Neck.

If the Purgation have not done well, or little profited, you muſt vomit with white Vitriol prepared, or with Salt of Vitriol, which may be given twice, thrice, or four times, if the Diſeaſe encreaſe. The Epileptick Pouder commonly called *de gutteta*, may be given often with Milk or Broth, from half a ſcruple to a ſcruple.

That Epileptick Pouder is not found written in our Diſpenſatory; but in the Shops at *Montpelier*. It is uſually compounded thus:

Take of *Peony Roots and Seeds, white Dictamnus, Miſleto of the Oak, of each half an ounce:*

the seed of Atriplex or Orage, two drams: the Pouder of Mans Skull, three drams: red Coral prepared, Hyacinths prepared, of each one dram and an half: Elks hoof prepared, half an ounce: Musk one scruple: Leaf Gold one dram: Mix them into Pouder.

Take it in a smal spoonful of Water against the Epilepsy: or instead thereof in Cinnamon Water, or Imperial Water, or with some drops of the spirital mixture with a proper Liquor.

Apply to the hinder part of the head, a Plaister of Ammoniacum, the hair being shaven; for it hinders a flux of humors that fals from the Head upon the back bone outwardly.

Use this Pouder to the fore part of the head.

Take of *Nutmeg half a dram: Peony seeds, one dram and an half: Lavender flowers, one pugil: Amber two scruples: Make a Pouder.*

Or apply the strengthening Plaister prescribed in the Cure of the cold distemper of the Brain.

Two or three drops of Oyl of Amber with an equal quantity of Spirit of Vitriol given in Bettony Water, do presently free a child from a fit of the Falling-sickness. The same Oyl is good to anoint the Nostrils. Instead of Oyl of Amber, give the Oyl of Box; as also the Water of Tile-tree flowers, and Bettony Water.

The smoak of Tobacco doth free children from the Epilepsy, if you put in the final end of the Pipe into the childs Mouth, and blow in the smoak, or if you blow it from your mouth.

Let the Back bone and the Members contracted be anointed with this Liniment:

Take of *the Oyl of Rue, and of Earth-worms, of each two ounces: Oyl of Castor one dram: a little* Aqua vitæ, *make a Liniment.*

Take of *old Treacle, one dram; Confection of Alkermes, and Hyacinths, of each one scruple; Bettony, Sage, Marjoram, and Cinnamon Water, of each half an ounce: Mix them, and bath therewith the Nostrils, Temples, and Ears. You may also give a spoonful to be drunk.*

But it is better to anoint the Nostrils, Temples, and Crown of the Head with the Apoplectick Balsom described for sleepy Diseases; as also the Mouth and Pallat.

Skenkius in his 5. Century of Exotick Experiments, num. 85. hath this Receipt out of *George Kufner: This is an approved Medicine in Childrens Epilepsies: Give a little fine Musk in thin Wine, twice or thrice in a day, and it will cure perfectly.*

While these things are performing, you must give once or twice in a day, a Clyster, thus made:

Take *of the Roots of round Birthwort, of Polipody of the Oak, of Carthamus seeds, of each half an ounce: Peony and Cummin seeds, of each three drams: the flowers of Chamomel and and Rosemary, of each one pugil: Boyl them to one pint; take half a pint of it strained; Hiera picra three drams; Honey of Rosemary one ounce; Oyl of Rue and Lillies, of each three drams.*

Two special things are to be practiced:

The one is the Root of wild Valerian before commended by *Columna*; which he saith he hath given poudered in Milk, and thereby cured very many.

Another is the Gall of a sucking Puppy, which is mentioned in *Untzerus*, thus: *Take a little black sucking Puppy (but for a Girl take a bitch Whelp) choak it, open it, and take out the Gall, which hath not above three or four drops of pure choller; give it all to the child in the time of the fit with a little Tile-tree-flower Water, and thou shalt see him cured as it were by a miracle presently.*

If the Child suck, look that the Nurses Milk be good, let her have meat of good juyce, and light of digestion: Let her drink no Wine, but Water, or Water and Honey, and a smal drink made of Sarsaparilla.

Some Children are so subject to this Disease, that it will return again after it is once cured. Nay, in some Families al the Children use to die of this Disease. Therefore you must use preventing Medicines, not only to those which are newly born, but to those also which have recovered.

First therefore give to Children newly born, before they suck, give one scruple of the Pouder *de gutteta*, mentioned before, in a little milk, and give the same quantity thrice in two daies.

It is good both for them which have been cured, and children when they are a few daies old to apply a Caustick to their Necks. But an actual Cautery is much better, which our Physitians wil not use, because they abhor violent and terrible Medicines. *Rondeletius* affirms, that the Actual Cautery is so used in *Florence*, that the women do use to apply it themselves. And this doth *Aquapendens* witness in his Chyrurgery Operations, and teacheth the way of applying them in his proper Chapter of the burning of the hinder part of the head in children.

Let the Child be purged twice in a month, with Manna, Syrup of Roses, or of Cichory with Rhubarb.

Every new Moon give it a dose of the Epileptick Pouder *de gutteta* above mentioned.

Make a Bag to strengthen the head, and a Fume for the Head-cloaths, as in the cure of cold Diseases of the head; and also pouder its hair with the pouder before mentioned.

For

For the Cure of this Diſeaſe, this is a good Preſervative:

Take of *Spirit of Wine, four ounces: Spirit of Caſtor, one ounce: Peony Roots, three ounces: Let them be infuſed and ſtrained. Waſh the whol body of the child with it warmed.*

CHAP. IX.

Of Giddineß, called Vertigo.

A *Vertigo* is a falſe Imagination, in which all objects, and the head it ſelf ſeem to turn round, ſo as the Patient often falls to the ground, unleſs he lay hold on ſome ſtay at hand.

It may be objected, That in a Vertigo, the Imagination is not hurt; for if it were ſo, the Patients would think the objects truly turned round; as men in Madneſs and Phrenzy do think what they imagine to be truly ſo. We anſwer, That in a Vertigo, the Reaſon is not hurt, which perceiveth the error of the Imagination; but in a Phrenzy, or Melancholly, the Reaſon is hurt as wel as the Imagination.

There are two ſorts of Vertigoes; the one ſimple, called in Greek δῖνος, in which the Sight remains unhurt: the other is called σκότωμα, or σκοτόδινος, a dark Vertigo, in which the Eyes are both darkned as it were with ſmoak, or a cloud.

In both kinds the Sight is ſomwhat hurt, becauſe the Spirits which uſe to go directly to the Eyes, are moved out of order by the viſive Nerve, by reaſon whereof the Eye doth not ſo fitly enjoy them. But in a dark Vertigo there is a more violent Motion of the Spirits, ſo that they come leſs to the Eyes, from whence the ſight is darkned or hindred.

The immediate Cauſe of a Vertigo, is the circumvolution of the Spirits coming of a vaporous matter or wind, which coming into the Ventricles of the Brain, and *Plexus Choroides*, diſturbs the Spirits, and makes them run round; whence the ſpecies of the Objects brought by thoſe ſpirits are moved in like manner; and ſo the objects themſelves ſeem to be moved alſo the ſame way. But here we may doubt, ſince a Vertigo is a ſymptom of a hurt action, and every action hurt depends immediatly upon a Diſeaſe, how the Circumvolution of the Spirits can be the immediate cauſe of a Vertigo, when it can be referred to no kind of Diſeaſe. To which we thus anſwer, A Circumvolution of the Spirits, is a Diſeaſe in reſpect of Scituation; for at that time the Spirits do not keep that place or poſition which they Naturally ought, but move preternaturally, and amiſs. And this Anſwer hath a weighty inſtance: For a Diſeaſe is an affection of a true part, but ſpirits are not true parts. We anſwer, That Axiome is not alwaies, but ſomtimes true; according to *Galen* that which is principal and hinders the action of its ſelf, is the true Diſeaſe: We ſay that the word *Part* ought to be taken in a larger ſenſe, comprehending all thoſe things which go to the making up of the Body, and whatſoever hinders the action of any part, is called a Diſeaſe. So a yellow color in the Eye, hurts the ſight immediately, and therefore it is called a Diſeaſe in number; ſo a bitter ſavor in the tongue, and noiſe in the Ears, are Diſeaſes in number, in regard there is ſomthing in thoſe parts beſides, which offendeth the actions. After the ſame manner is the Circumvolution of the Spirits, a Diſeaſe in Scituation or Poſition, for the Reaſon above mentioned.

But thoſe Vapors are ſent up from evil humors, not continually without intermiſſion, but by compaſs and going about, and at a diſtance, namely, as often as they are raiſed up by an external cauſe; and the humors are ſuch as uſe to produce vapors, namely, Blood, Choller, Flegm, and Melancholly, and the watery Humor; becauſe both a cold as well as a hot vapor, may cauſe a Vertigo; as *Galen*, 3. *de loc. affect.* chap. 8. and Comment. Aphor. 23. Sect. 3.

Theſe evil humors are either contained in the Brain, or in the inferior parts. Hence a two-fold Vertigo ariſeth, one Proper, the other by Conſent.

Wateriſh and flegmy humors heaped up in the Brain, ſend wind and vapors to its ventricles, which ſtirring about there, do cauſe a Vertigo. And ſo a proper Vertigo comes to be a forerunner of an Epilepſy, or Apoplexy.

But Humors contained in the inferior parts, eſpecially the ſtomach and the ſpleen, do eaſily ſend up Vapors to the head, which if they touch the Ventricles, and the Arteries, cauſe a Vertigo.

The external Cauſes are all ſuch things as will quickly diſſolve the Humors, and turn them to Vapors, or make an inordinate motion in thoſe Vapors. Among which are reckoned by *Hippocrates*, Aphor. 17. Sect. 3. a South wind, and ſudden change of Air. To theſe ad the heat of the Sun, windy Meats, Garlick, Muſtard, Radiſh, Peaſe and Beans, Drunkenneſs, Gluttony, immoderare Exerciſe, and unſeaſonable, the ſuppreſſion of a wonted evacuation, Anger, Baths, Hunger, eſpecially in thoſe which are ful of bitter Choller, often turning of the Body round, long looking upon Wheels and

things that run round, and of Waters that run swift, looking down from a high place, a Fall, a stroak upon the Head, a Fracture, or depression of the Skull, compressing and lying upon the Brain.

We shall lay down no Diagnosis, or general signs to know this Disease by, because it is of it self manifest. Yet in particular we shal declare those signs which shew the part affected that containeth the mine or matter of the Disease; as also those which shew the humor offending.

Pain of the Head shews that a Vertigo cometh from a Disease of the Brain, which is a true or proper Vertigo. Also Heaviness, and the loss of some Sence; as Dimness of sight, noise in the Ears, thickness of hearing, decay of smelling and tasting; the beating of the Arteries of the Head when other parts are free.

The signs that shew what the matter is that offendeth, are these: That abundance of flegm offendeth, is signified by a dulness of the internal and external Sences, heaviness of Head, slowness of motion, drouziness, much spitting, want of Appetite, want of Thirst, white Urine, and crude, with the other signs of abundance of flegm.

But watchings, wrath, nimbleness in actions, thirst, bitterness of mouth, quickness of pulse, a thin and yellow Urine, and the like, shew that the Chollerick matter offendeth.

The signs of a Melancholly matter are, Fear, sorrow, troublesom thoughts, much watching, fearful dreams, sowr belchings, and the like.

The signs of Blood abounding, are, Stretching of the Veins with fulness, redness of face, and heat, beating of the Temples, heaviness and distention in the head, long sleep, dreams of red things, weariness, reaching, thick and red Urine, sometimes thin and transparant by the ascention of the blood into the head.

A Vertigo by Consent is known by the want of those Symptomes, which come from the Head, when no disorder is found in the Brain, but rather some part beneath is sensibly hurt.

These things shew that a Vertigo comes from the stomach, want of appetite, loathing, sowr belchings, pain of the stomach, or swelling with wind.

That a Vertigo comes from the Liver, Spleen, or Matrix by Consent, the same signs declare which were laid down in an Epilepsy by Consent coming from the same parts in the Chapter aforegoing.

The Prognostick, or foreknowledg of this Disease, is thus:

A new Vertigo that comes but seldom, and which comes only from external Causes, is more light and easier cured: On the contrary, that which is old, and comes often, turneth for the most part into an Epilepsy, or Apoplexy.

A Vertigo in an old man is most dangerous, because his Brain is colder and weaker, and flegm doth more abound.

A Vertigo in which not only external things, but also the Head and whol Body seem to be turned about, and which happens with hurt to the sight, is more dangerous, for it signifies greater force in the cause of it; and if the sick man falls to the ground, it foretels an Epilepsy, or Apoplexy.

A Vertigo coming of hot Humors, is sooner dissolved than that which comes of cold, because hot Humors are sooner dispersed.

The Cure of the Vertigo is much like that of the Epilepsy, because both Diseases come almost of the same Causes: whence it comes that a Vertigo often turns into an Epilepsy. But because a Vertigo is a lighter Disease, it doth not need so many Medicines as an Epilepsy: but they will serve, which we will here lay down; and also we shal demonstrate in short what is that which this Disease most properly requireth for its Cure.

In the first place, Therefore if blood abound in the whol body, or in the head, you must open a Vein, and let the blood out by degrees, giving before a Clyster that is somwhat sharp.

After that, give the ordinary Purge which is prescribed in the Cure of the cold Distemper of the Brain.

Afterwards we must come to the particular Evacuations of the Brain, by Errhines, Sternutatories, and Gargarisms, or Apophlegmatisms, mentioned in the first Chapter.

Cupping glasses dry, and with Scarrification; Frictions of the extream parts, and opening of the Hemorrhoids are to be used for to cause revulsion.

Apply Vesicatories and Cauteries for derivation, and at last use those things which strengthen the Brain, and disperse Vapors and Humors as well externally as internally, as Opiates, Pouders, and Bags that are described in the first Chapter.

And you must not omit the digestive Pouder, because the weakness of the Stomach often causeth this Disease.

And lastly, You must use those Medicines which are esteemed by special quality to cure the Vertigo; such as are those which were prescribed for the Cure of the Epilepsy; namely, Antepileptick Waters, a Ballom to anoint the Nostrils, Temples, and Crown of the head, Oyl of Amber, Pouder of Cinnaber, and many other.

Moreover, *Quercetanus* in the twentieth Chapter of his Dispensatory, commends a Medicine made

made of Peacocks dung, whose Preparation and manner of use, may be seen in the Author.

If the Disease do obstinately resist the propounded Remedies, you must fall to a Diet of the Decoction of Guajacum.

A Cautery in the fore part of the Head, is much commended by *Zacutus Lusitanus* in his first Book of Admirable Practice, Obs. 38. in these words: *A certain man was so troubled with a dark Vertigo, that his Brain did almost continually seem to run round: and when he had tried many Medicines, and there was fear of an Apoplexy to follow; with no other means (besides general and particular Evacuations, and Fontanels or Issues in divers parts, and a Seton in the nape of the Neck) could be be cured, but with a Cautery in the fore part of the head; by which only (beyond the expectation of Physitians) I have cured many of the Falling-sickness, letting them run a long time.*

CHAP. X.
Of Tremor, *or Trembling.*

TRemor is called τρόμος in Greek; it is a voluntary Motion depraved, by which the Member is sometimes elevated, sometimes depressed, through the mutual contention between the faculty, and the part affected.

It is called a depraved motion from *Galen*, 2. *de sympt. caus.* chap. 1. and he saies the same in his Book of the Difference of Symptomes, chap. 3. but he seems to contradict himself, when in his Book of Trembling, chap. 4. he reckons Trembling among the Motions which are diminished. But that contradiction may be reconciled, by saying, that Motion may be considered two waies, Either in respect of it self, or in respect of the faculty: If it be considered in respect of it self, it is depraved, because it is not in that manner it ought to be; if it be considered in respect of the faculty, it is a deminished motion, because it comes from a faculty so weak that it cannot produce motion strong enough. But one may instance, That the action is alwaies diminished when comes from a weak faculty, but never depraved. I answer, That it is true if al the actions depend upon the faculty; but Trembling comes partly from the Faculty, partly from the heavines of the part; therefore it is a depraved Motion.

The moving faculty desireth to lift up the Member, and to keep it in that Position; but the weight of the Member presseth it downwards, whence comes a trembling Motion.

The Mediate Cause of Trembling, is weakness of the Motive Faculty, or rather of its neareſt Instrument, that is, the Animal Spirit, which is not able to exercise a voluntary Motion perfectly.

The Spirits are made weak, either by a fault in themselves, or by a defect in the Nerves, which are the Conduit Pipes by which they are carried, and do act.

The fault is in the Spirits, either when they are but few at the first; or when they are afterwards dissipated.

They are few at the first, either by reason of the cold distemper of the Brain, as in old men, or through the want of vital Spirits, which are the matter of which the animal are made.

The Spirits are dissipated from many external Causes, as immoderate Evacuations, much use of Venery and unseasonable, great pain, and constant fasting, sorrow, and long violent Diseases.

The Spirits are hurt by defect in the Nerves, and are weakned either when the Nerves are too cold, or are infected with a malignant quality, or obstructed or compressed.

They grow too cold, either from a cold Air, from use of cold meats, or much drinking of Water, swimming often in cold water, and the like.

They are infected by the use of Opium, Henbane, Poppy, and the vapor of Quick-silver, as it is seen in Gold-smiths, and them which have the French Pox, and have been cured with the fume of Cinnaber. So in malignant Feavers tremblings come also (which are rather to be accounted Convulsive Motions) and also they come from the provocation or irritation of the Nervous parts.

They are stopped not wholly, as in a Palsey, but much less, but by the same cause, namely a watery humor gently sprinkled upon the Nerves, which is produced of gluttony, drunkenness, and other Causes.

Lastly, Trembling may come from compression of the Nerves, when excrementitious humors abounding in the whol Body do compress the Nerves, and hinder the free passage of the Animal Spirits.

Hercules Saxonia, besides the causes mentioned borrowed from *Galen*, acknowledgeth another *Tremor* coming of wind; and *Cardanus* another from pain in nervous parts: But they are deceived, because the Motion produced from those Causes, are to be referred to Palpitation, or Convulsive Motion.

There

There is no need of signs in this disease, because trembling appears of it self: But the Causes that produce it, are to be known by their proper signs; as also we must search for those external Causes which went before.

As for the Prognostick. Trembling of it self is not dangerous, but if it be in old people it continueth with them til they die. But it may be deadly by accident, in as much as it usually goes before a Palsey, or an Apoplexy.

You must Cure Trembling as you cure the Palsey, and therefore we shall not make vain repetitions of Medicines.

CHAP. XI.

Of Phrenitis, *or Phrenzie.*

A Phrenzy is an Inflamation of the Brain, and its Membranes with a continual dotage, and a a sharp constant Feaver.

By the word *Inflamation*, we understand a true Tumor, which is commonly called a contracted Inflamation, coming of Blood out of the Vessels falling upon the substance of the part; for the Blood being hot and Chollerick, and in the Membranes or substance of the Brain, causeth a true *Erysipelas*, or an *Erysipelas Phlegmonodes*, or *Phlegmon Erysipelatodes*.

By *Delirium*, or Doting, we understand the erring of Reason, for we suppose that fault cannot be in the Imagination alone, without a fault be in the Reason, in a Phrenzy; whatsoever others think, we are led by the Authority of *Galen*, who in his Book of the Difference of Symptomes, chap. 3. gives an Example of one *Theophilus* a Physitian, who thought Fidlers sate continually in a corner of his house playing, and beleeved that he saw them sometimes standing, sometimes sitting, and cried continually that they should be cast out of doors. And *Galen* saith, that in him the Imagination was hurt without the Reason. First therefore we may say that *Theophilus* had not a Phenzy; for *Galen* doth not say that he had, but speaking of a Delirium (which *Theophilus* had) therefore it was rather Melancholly, because they sometimes err in one object, and discourse wel concerning other: so saith *Galen* of *Theophilus*, that he had wisdom in other things, both to discourse, and to know his friends. But we say further of *Theophilus*, that not only his Imagination, but also his Reason was hurt, because he really thought the Fidlers were there, and desired they should be put forth: For when the Imagination alone is hurt, the Reason being not hurt, acknowledgeth the error of Imagination, as in a Vertigo, in which the Patient thinks al things run round, but Reason knoweth that it is not so indeed, but that Imagination doth err.

Nor is the Opinion of *Eustachius Rudius* to be received in this case, who saith, That it never comes to pass that the Imagination should be hurt, the Reason being sound, because Reason worketh upon Phantasms received from the Imagination, and therefore if fooliish Phantasms are offered to the Reason, he thinks it necessary that the Understanding beholding those fooliish fansies, should also be fooliish: And hence *Eustachius* gathers, that the Imagination is not depraved, but there is a meer and simple deceit of the sight. We say that the understanding doth run from one thing to another, and is busied about those Species which are retained in the Memory; and though the Fansie presents absurdities to the Mind, yet the Species before received, are still retained in the Memory, and are presented to the Reason, it can know and correct that mistake of the Fansie; namely, if it judg that those absurd fansies which are brought to it by a depraved Imagination do neither agree with time, place, or other circumstances which still remain in the Memory, and are known to be true. So in a Vertigo, Reason being in order judgeth that it is impossible that Roofs, Walls, and Pavements, should turn round, and therefore they are falsly represented to the Imagination. So the Philosopher that was bit with a mad dog, and his Imagination began to decay, going into a Bath, perceived the false Image of a Dog therein; but Reason being sound reproved the error of his Imagination, and made him speak thus; What hath a Dog to do in a Bath? and presently he cast himself into the Bath, by which means he was delivered from the danger of a Disease called *Hydrophobia*, or fear of Water.

There are two kinds of Phrenzie; namely, a true Phrenzy, which is laid down in the Definition above mentioned: Another which is called *Paraphrenitis*, or Bastard Phrenzy.

A true Phrenzy is sometimes in the Disposition, which is most usual, sometimes in the Habit, which is called Hectical Phrenzy, in which, the Chollerick Humors are strongly fixed in the Brain, and possess many parts thereof, sticking thereto like a tincture or dye.

A *Paraphrenitis*, or bastard Phrenzy is, when a hot distemper is communicated to the Brain, either from the whol Body (as in burning Feavers) or from some part inflamed, as the Stomach, Liver,

Liver, Lungs, and especially the *Diaphragma* or Midriff, which by inflamation doth produce a Disease very like a Phrenzy; namely, a continual Dotage called *Delirium*; which cometh to pass by the great consent which is between the Brain and the *Diaphragma* through the Nerves that come thither, and by the perpetual motion of the *Diaphragma* or Midriff, by reason whereof continual vapors are sent to the Brain.

The Cause of a true Phrenzy is Chollerick blood, to which there is joyned also Excrementitious Choller, and this produceth a greater or less Phrenzy according to its divers degrees; namely in heat and adustion. So a Pale Choller produceth the mildest Phrenzy, and an Adust or burnt Choller stirs up a bestial Phrenzy.

But when the Brain is inflamed, and the Membranes thereof; the Chollerick blood is out of its Vessels, and shed abroad into the substance of those parts: which is done Two wayes, either when the Brain is principally affected; or when it is affected by Sympathy.

The Brain is primarily affected when it doth immediately grow hot from an external Cause, as from the Sun-beams, drinking of Wine, Wrath, and the like; so that the blood which is contained in the veins of the Brain is moved and carried out of its Vessels: and this may come from a wound, or stroak, or contusion of the head: And a Phrenzy so coming may be called a primary, or principal Phrenzy.

But a secondary Phrenzy is that which follows burning and malignant Feavers, when a part of that humor which causeth the Disease, is carried to the head.

It followeth many times in these Feavers, That Nature being disturbed by the malignity of the Cause which maketh the Disease, sends some portion thereof to some flesh between the skin and the bone; whence we see Pluresies, shortness of Breathings, Squinseys, Hipatitides, or Inflamations from the *Vena porta*, and other parts, to follow these Feavers: So if these humors are sent to the Brain they make a true Phrenzy, and then the Feaver goes before the *Delirium*, or doting: But in primary Phrenzies a *Delirium* appears with the Feaver from the beginning.

The Signs which declare a Phrenzy to come are these, watchings, troublesome sleep, much talk, an urin that is first thick, and after thin, and perspicuous; heat of the head: for these declare that hot matter is carried to the head: the eyes are altered because (the brain being hurt) they want the animal spirit. There is a pain about the hinder part of the head, because the jugular veins are carried to that part and send forth the Chollerick blood.

These are the signs of a Phrenzy present: a continual doting, because the Brain is alwayes affected: troublesome watchings coming from the hot distemper of the Brain; seldom and great violent breathing, because men in Phrenzies forget to breath: for when by forgetfulness, or great trouble of the mind by many fancies which are presented to a doting imagination, and with-draw the animal spirits: Respiration, or breathing is very seldom, it is made up with the greatness of the blast.

Moreover, in a Phrenzy there is no thirst, or very little; albeit there are strong causes of thirst present, because the mind is sick, and the animal spirits (by reason the Brain is hurt) do not send their beams to the mouth of the stomack whereunto thirst belongeth. The Pulse is weak because the heart suffers with the brain: hard; because the *Membrana* is inflamed: quick and often; by reason of the great urging; and somthing moist; because the brain is affected. Moreover, there is a continual Feaver because the inflamation of the brain must of necessity cause a Feaver. The tongue is rough, black, and yellow, by reason of the Chollerick vapors which dry up its moisture.

An Hectical, or Habitual Phrenzy is known from *Hippocrat.* 1. Prorrhet. text. 33. by smal doting, and little perceived; when the sick do not speak, but lie still and seem to sleep.

But a Phrenzy, or Phrenitis is distinguished from a Paraphrenitis in this; The Disease which produceth that, is sooner known than a *Delirium* or Doting; and by the encrease or diminution of that the *Delirium* is encreased or diminished; and sometimes it intermits and is not constant. But a *Paraphrenitis* springing from the Inflamation of the Midriff, in which there is a constant doting, is distinguished by other signs. Namely, because in a true Phrenzy there is great and seldom breathing: but in the other, little and often. Little; because the *Diaphragma*, or Midriff being inflamed, cannot easily be extended and dilated. Often; for necessity, that the smalness might be made good by the frequency. Moreover, in a true Phrenzy the voyce is high, and the Patient cryes out loud; in the other the voice is low, because the instrument of Breathing is hindered. And lastly, In the inflamation of the Midriff, the *Hypocondria* are drawn up (according to *Hippocrates* in *Coacis*) and the reason is, because the Midriff is covered beneath with a *Membrana* coming from the *Peritoneum*; and therefore when it is inflamed, it contracts the *Peritoneum*, and with it the *Hypochondria*.

Lastly, The Signs of the Causes may be known from the predominancy of the Humor in the whol Body, and from the manner of the *Delirium*: For a pale Choller makes a more gentle Phrenzy; a yellow Choller make a more violent; an adust Choller makes the most violent: But Chollerick blood causeth the most mild of al.

The

The Prognostick of this Disease is for the most part deadly; for few escape in regard a noble part of the body is affected with a great Disease.

The greatest hope of recovery is when there is Dotage with laughter, and a decrease of Symptoms, continuance of strength; as also when after the height of the Disease there happeneth some beneficial evacuation, as sweat, blood, or loosenes.

But these shew the Disease to be deadly. The Tongue quavering, and Hand trembling, gnashing of Teeth, Convulsion, a great Chilnes or Cold in the beginning of the Disease; as also when the Patient picketh the Wooll or Straws about his bed. You may farther Collect Death to be at hand by a drop of black blood flowing from the Nostrils, by white stools, white and thin urine: For all these signifie a great oppression of the Brain, or a flowing of Choller from the whole body to the part affected.

For the Cure of this Disease, the blood that flows to the Head must be let forth, and revelled, derived, repelled, and intercepted; and that which was there before must be evacuated and discussed. The distemper of that part must be corrected; the strength of it, and of the whole body is to be preserved.

All these things may be done with the following Medicines.

In the beginning of the Disease, at any time of the day you must let blood out of the Head vein, because the Disease is very violent, giving a Clyster before: or if blood do much abound, out of the Liver vein: or first, out of the middle vein; and a little after out of the Head vein.

If the Disease come from stoppage of the Terms or Hemorrhoids upon the vein called *Saphena* in the foot. In the next place you must open the *Chephalick*, or Head vein, that you may draw forth what is received into the brain, or what is nigh unto it.

For the most part once bleeding wil not be sufficient in this Disease, but twice or thrice, or oftener in the beginning or encrease of the Disease; you may adventure upon it, according to the condition or plenty of the Humor; the age, temper, and strength of the patient.

If a Phrenzy taketh one that hath a constant Feaver, (as it is often in the encrease of Feavers, or in the state of them, when nature is out of order and disturbed by the malignity of that matter which causeth the Disease, sendeth Cholleric humors to the head) you must again let blood, though you have done it before in respect of the Feaver; but you must do it sparingly, because the strength is abated by the Feaver and former bleeding. Therefore at that time open the Head vein, or if strength wil not bear that, open the *Saphena* in one foot, or both; which is approved in such Diseases: neither is it less beneficial to open the Hemorrhoid veins by Leeches.

But in all Bleedings which are made in time of a *Delirium*, you must observe this that the Orifice be not large, for then it wil quickly heal, and you must bind it up carefully left the Patient being unruly cause it to bleed again; as also 'tis very good for the sudden Cure of it, to lay a plaister of Aloes, white of an Eg, and the hair of a Hare.

After Bleeding provoke sleep. For if after bleeding there comes watchfulnes, the Humors wil be again inflamed, and the patient grow worse.

Sleep is caused by repelling Medicines laid to the forehead which are cooling and narcotick or causing sleep, which we shall mention hereafter.

When you cannot conveniently let blood, apply Cupping Glasses with deep Scarrifications; first, to the lower; than, to the upper parts: and also to the Thighs, and other parts, without Scarrification.

Use Frictions in the same parts; and use Ligatures to the Legs for revulsion.

Apply Vesicatories to the Shoulders and Arms.

Give every day a Clyster, made of cold and moist things: For by these the *Acrimony* of the Humors is qualified, and they are put downwards.

And they are thus made,

Take of *Marsh-mallow Roots one ounce*: *the Leaves of Mallows, Violets, Lettice, Pellitory, Beets, of each one handful*: *the flowers of Water-lillies, and tops of Dill, of each one pugil*: *Prunes six*: *boyl them in Barly water*; *to one pint of the straining ad of Cassia newly drawn, and Diaprunes simple, of each six drams*: *red Sugar one ounce*: *make a Clyster.*

Use no Oyls in these kind of Clysters, because they wil then inflame.

You must not Purge in a primary Phrenzy, such a one as comes not from another Disease, but it is good sometimes to Purge when the Phrenzy comes upon a continual Feaver. For if there be an evil digestion or ill juyce in the Body, and the Phrenzy begin: then the matter is wandering, and is taken for that which is called *Turgent*, or abounding: And therefore by the Counsel of *Hippocrates*, Aphor. 22. Sect. 1. is to be presently evacuated.

But the Purge must be made of cold things, with gentle, as Senna, Rhubarb, Cassia, Tamarinds, Catholicon, and Syrup of Roses.

Presently

Presently after blood letting you must use repelling Medicines, which hinder the assent of humors and cool the head, as Vinegar of Roses made of Oyl of Roses and Vinegar, in time past; but now we use distilled Waters and Juyces of Herbs with it, and we repel and cool more or less, as there is a greater or less flux of humors, and inflamation, which we must diligently observe. Therefore we wil lay down many forms that in particular cases we may chuse those which are most fit.

Take of *Oyl of Roses three ounces*; *Vinegar of Roses one ounce*; *Rose and Plantane Water, of each two ounces*: *lay them on the forehead shaven, and with four-folded cloaths.* Or,

Take of *Rose water four ounces*; *Oyl of Roses two ounces*; *Vinegar of Roses half an ounce*; *two whites of Egs*; *mix them together.* Or,

Take of *Oyl of Violets and Water-lillies, of each half an ounce*; *Rose, Lettice, and Housleek Water, of each two ounces*; *Vinegar half an ounce.* Or,

Take of *the Juyce of Lettice, Purslain, Night-shade, Penny-grass, or Venus-navil, of each two ounces*; *Oyl of Roses three ounces*; *Vinegar of Roses one ounce.* Or,

Take of *Oyl Olive in which Roses are infused, one ounce and an half*; *new Poplar Oyntment (for the old inflameth) one ounce*; *Vinegar of Roses half an ounce*; *one white of an Eg*: *Beat them together, and apply them with Flax.*

The Milk of a Woman which hath brought forth a Girl, with the Juyce of Lettice, and Oyl of Roses, is very excellent.

Concerning these cooling Medicines, you must observe that they be administred warily, and with judgment, because the Brain is of its own Nature cold, and a principal Member, therefore it is to be feared lest the Patient by too much use thereof should fall into a contrary Disease, as a Coma, or the like, especially if he be weak or old; and although they are used sometimes more, sometimes less, yet the extent of the time of their usage ought not to be above three daies.

Moreover, Those Medicines do stick to the face and eyes, therefore you must lay about them a cloth, or a little wool: in the fore part of the head you must apply them to the middle of the forehead; in the sides of the head, above the ears; in the hinder part, about the nape of the neck and towards the crown of the head: and these are in Winter, to be applied hot; in Summer, cold, as *Galen* saith, 2. *de comp. med. cap.* 2. But it is best in old and weak people never to apply them actually cold.

If the Inflamation cometh to the Skin, as it sometimes doth; then we must avoid repelling Medicines, especially those that are strong, lest the matter driven to the Brain should augment the Disease.

You must apply cloths wet in Rose-water and Vinegar to the neck, to hinder the humors from flying into the head.

Caustick applied to the Legs do very well for revulsion or drawing down of the humor to the inferior parts.

While these things are doing, you must use al those things which do cool the whol Body, especially the principal parts both internally and externally.

Inwardly you must use Juleps, Emulsions, and Electuaries.

Take of *the distilled Waters of Lettice, Purslain, Roses, and wild Poppies, of each three ounces*: *Syrup of Violets, and Pomegranates, of each one ounce and an half*: *Sal Prunellæ three drams*: *Make a Julep for three Doses to be taken twice or thrice in a day.* Or,

Take of *Lettice, Purslain, and Plantane, of each two handfuls*: *Water Lillies, and Violet flowers, of each a pugil*: *Boyl them in Barley Water to one pint*; *and being strained, dissolve in it Syrup of Violets three ounces*; *Sal Prunellæ three drams*: *Make a julep for three doses or draughts.*

It is very good to put to your Juleps, besides the Sal prunellæ, the spirit of Sulphur, or Vitriol, for those do much allay the heat of Choller.

Take of *the four great cold Seeds, six drams*: *white Poppy seeds two drams*: *Barley Water, half a pint*: *Lettice and Water-lilly Water, of each two ounces*; *Rose water, one ounce*: *Make an Emulsion according to art, to two Doses, putting thereto Syrup of Violets two ounces.*

Take of *Conserve of Violets and Roses, of each one ounce*: *Conserve of Water-lillies and candied Lettice stalks, of each half an ounce*: *the pouder of Diamargariton frigid. half a dram*: *With the Syrup of Violets make an Electuary.*

You may also make an Electuary of white Poppy Seed, beaten in a stone Mortar, and mixt with Sugar; this may be called *Diacodium album*: this temperates sharp and hot humors, and brings rest; it is made of one ounce of Poppy seeds beaten with so much Rose water; after put two ounces of Sugar to it: Or make it of equal parts of each.

Outwardly you must apply cold Epithems to the Heart and Liver.

Take of *Rose water three ounces*: *Borrage, Bugloss, and Sorrel Water, of each two ounces*: *white Wine Vinegar, half an ounce*: *the pouder of three Sanders one dram and an half*: *of burnt*

Ivory half a dram: Wood of Aloes one scruple: Saffron eight grains: Camphire six grains: Make an Epithem for the Heart.

Take of *Lettice and Rose Water, of each three ounces: Endive and Purslain Water, of each two ounces: Vinegar of Roses one ounce: white and red Sanders, and burnt Ivory, of each one scruple: Camphire and Spickuard, of each six grains: the pouder of Diarrhodon one dram: Make an Epithem for the Liver.*

Let the Liver and the Loyns be anointed with this Oyntment.

Take of *the Unguent of Roses one ounce and an half: the cerate of Sanders one ounce: the Juyce of Lettice and Oyl of Roses, of each half an ounce: Make a Liniment.*

Let the Breast be anointed with lupling Oyls, as Oyl of Violets, and the like.

Apply cloaths wet in Water and Vinegar to the Stones or Cods, or which is better, let them be wet with Rose water and Vinegar.

It is good to wash the feet with an actually hot decoction, made of cold things; for it will soften those parts by its hot moisture, and make the humors descend, and its potential coldness will be communicated to al the Body, and to the Brain especially by the Nerves, whereby sleep will be provoked. It is made thus:

Take of *Violets, Mallows, Willow Leaves, Vine Leaves, Water-lillies, of each two handfuls: the flowers of Roses, and Water-lillies, of each one handful: Poppy heads, ten: Make a Decoction for the use aforesaid.*

Fair Water may suffice to wash the Feet, and if the feet of the sick man be put therein when it is a little warmed, for three or four hours, it frees him from his Delirium, and makes him sleep.

The same effect is wrought by Housleek beaten into a Cataplasm, and laid to the soals of the feet: and also by Pompions or Guords beaten and so applied.

Sweet Scents often applied to the Nose, cool the Brain: they are prepared after this manner following:

Take of *Violet flowers, and Water-lillies, of each one pugil; of Roses two pugils: yellow Sanders one scruple: Tie them in a clout, and dip it into Rose water, and let the Patient smel to it often.* Or,

Take of *yellow Sanders, Roses, and Water-lillies, of each one dram: Camphire half a scruple: put them with Rose water into a narrow mouth'd Vessel: Let them boyl over the fire, and after let the Patient receive the vapor at his Nose.*

But because watchings do chiefly trouble in this Disease, you must use all your skill from the beginning of the Disease to provoke sleep. For which, the repelling Medicines before mentioned are very good; especially if you anoint the head with Oyl of Violets cold, before you apply Rose Vinegar, which is good against watchings and Convulsions which come in this disease. But the Medicines following, will do it more powerfully.

Take of *the heads of white Poppies with their seeds, in number six: the flowers of Water-lillies two pugils: beat them together, and with Rose and Lettice water make them like a pultis, which apply to the forehead between two cloaths.*

Note that in Medicines to provoke sleep, you must use but little Vinegar, because it causeth watching.

Take of *Lettice flowers one handful and an half: Roses half a handful: white poppy seeds half an ounce: boyl them in water till they grow soft; stamp them in Barley Meal, and womans Milk, of each half an ounce, and a little Oyl of Violets: Make a Frontal thereof.*

Take of *Oyl of Violets, water-lillies, and new Oyntment of Poplar, of each three drams: Opium and Oyl of Nutmegs, of each three grains: Mix them into a Liniment to anoint the Forehead and Temples.*

Great Housleek bruised with Womans Milk, and laid to the Forehead, appeaseth a Phrenzy, and provokes sleep. But as soon as the Patient begins to sleep, you must take it away, lest he fall into a Coma, or sleeping Disease.

Guords or Pompions do the same thing with less danger.

Penotus doth extol this Epitheme:

Take of *Musk twelve grains; Camphire twenty grains; red Rose water in which Sanders hath been infused, twenty ounces; mix them: Shave the head, and wet double cloaths therein, and apply them warm to all the Sutures of the head. When they are dry wet them again, and continue the application twenty four hours, and so doing you shall provoke sleep, strengthen the brain, and wonderfully recover the Patient, except the very substance of the brain be corrupted.*

Inwardly you may give one ounce of Syrup of Poppies sometimes in his Juleps and Emulsions.

Or you may give four or five grains of Laudanum, which also given in a Clyster, doth provoke sufficiently to sleep, and with more safety.

The Physitian must be wary in the use of Narcoticks, or Medicines that provoke sleep; for they must

must not be given if the Patient be very weak, left the Spirits and Natural heat, be thereby extinguished.

Having sufficiently used Evacuations, Revulsions, Derivations, and Interceptions: we must come to the bringing forth of the matter. And first we must open the forehead vein if it appear, and may be taken, not tying a Ligature about the Neck as usually they do, for so the blood will be forced upwards.

But you may with most profit open the veins in the nostrils, and if the Disease be any waies curable, it will be cured thus: You must bleed plentifully, and betimes, in the beginning of the Disease, after you have made general Evacuations. And they are opened with Bristles put up into the Nose, and pricking often therewith.

Or you may draw blood from behind the Ears, from the Nostrils, Forehead, Hemorrhoids, with Horse-leeches.

Apply to the Head, things that resolve, with things that repel, in that proportion, that first you use a little of the resolvers, and as the disease declineth, encrease the quantity, so that at length you use only resolvers to discuss the reliques of the Disease. For this end we use Oyl of Chamomel, and of Dill mixed with Oyl of Roses.

But among Resolving Medicines, the chiefest are Creatures newly killed and applied to the head, or pieces of them; as yong Pidgeons, Chickens, Puppies cut along the Back, and Sheeps Lights; for they fortifie the part with their Natural heat, discuss the humor, and qualifie the sharpness thereof.

Which things, if you have tried one or two daies, and have found no benefit, *Mercatus* teacheth to apply a Cupping glass to the crown of the head, that the humors may breath through the Sutures into the Skin: and if it appear red, and be swelled under the Cupping glass to scarifie. This Counsel he saith (if followed) wil do good when al things besides fail; especially if you bath presently after with sweet Water in which you have boyled some discussing Medicines: But he adviseth that this be not used in Phrenzies that come from other Feavers, but only in that which beginneth of its self.

This Remedy is confirmed by *Zacutus Lucitanus*, who saies that he cured a most desperate Phrenzy by applying a Cupping Glass to the fore part of the Head with Scarrification.

Some are so bold as to apply Vesicatories, or Medicines to raise Blisters to the fore part of the Head, which they say hath sometimes had success: But this requires extraordinary premeditation before it be used.

For his Drink, let the Patient use Barley Water, or Water made of Sorrel Roots, with Syrup of Pomegranates, Barberries, or Lemmons; or let him drink this following Infusion.

Take of *Spring Water two pints; the Leaves of Sorrel, and wild Poppies, of each half a handful; the Flowers of Borrage, Water-lillies, and Violets, of each half a pugil; the spirit of Vitriol one dram: red Sanders rasped two scruples: Let them be infused for some hours cold; then strain them with a Cap paper, and ad as much Sugar as is sufficient to make it pleasant.*

There is in this Disease for the most part a stoppage of Urine, because the Patient neglecteth to make it; from whence those parts that contain it are distended, and bring so great an Inflamation, that it alone is able to bring death to the Patient. Therefore you must often call upon the Patient to make water, and you must foment the place where the Bladder lieth with warm Water, and drive the Urine forth by the compression of the hand. But if the Symptomes do not yeild to these light Medicines, you must proceed to stronger.

Take of *the Leaves of Pellitory of the wall two handfuls; Parsley with its roots, one handful: Boyl them, and after they are strained ad three ounces of the Oyl of Scorpions, and foment the hairy place of the Privities therewith.*

Let the remainder of this Decoction after the straining, be fryed in a pan with the Oyl of Scorpions, and applied to the same part after the Fomentation.

If you desire a stronger Decoction, ad the Seeds of Smallage, Parsley, Gromwel, Seselis, or large and broad Cummin, of each two drams.

You may also profitably apply this following Oyntment after the Fomentation:

Take of *the Fat of a Rabbit, and of Oyl of Scorpions, of each two ounces: Smallage Seeds, Parsley seeds, Asarabacca, and Cummin seeds finely poudered, of each half a dram: Make an Oyntment.*

Chap. XII. *Of the Impostbume, and* Spacelus, *or Mortification of the Brain.*

THe Impostbume and Mortification of the Brain is described by few Authors, although it was observed by *Hippocrates* in his 3. Book of Diseases, and happeneth sometimes in Practice, and deluding those Physitians who are not well grounded, making them conceive it to be another Disease.

Now a Spacelus, or Mortification of the Brain, is a suppuration, or corruption, or matter of the substance of the Brain, which is called a Gangrene, Syderation, or blasting of the Brain.

The Immediate cause whereof, is an Inflamation of the substance of the Brain, which is distinguished from a Phrenzy, in this: In a Phrenzy the Membranes are chiefly inflamed, and they do communicate an Inflamation to the external part adjoyning; but in this Disease, the inward parts of the Brain are inflamed, and the whol substance thereof is putrified; for so great an inflamation in a most tender part and moist, will quickly produce a Spacelus, or Mortification.

The Cause of this Inflamation is Blood over-heated, or over chollerick, running into the Body and internal parts of the Brain.

The Primary Causes, are, all such things as produce hot and much Blood in the whol Body which is sent to the Brain; as violent Exercise, the heat of the Sun, heat of the head by Fire, Wrath, and the like: But great Wounds do more usually produce this Disease, as also Contusions. But a Spacelus or Impostbume coming from a Wound or Contusion, is different from the former in this: An Impostbume made by a Fall or Contusion, doth not possess so many parts of the Brain, but for the most part adhæreth to one. Hence the Symptomes are higher, especially in the beginning, and the Disease continueth longer.

The Signs of an Impostbume or Spacelus, which cometh without a Wound, or Contusion, are these:

In the beginning there is a great Head-ach, which is communicated by the hinder part of the head to the neck and all the back; after which comes a general decay of all the Sences both internal and external, as in an Apoplexy, from which it is distinguished by the Signs hereafter mentioned.

The Patient is tossed to and fro, and cannot remain in the same place; he layeth hold with his hands upon his head, and desires to tear and scratch his face, plucking his hair: but as the Disease encreaseth, his Body groweth faint, and cannot use such violence.

A most sharp and strong Feaver alwaies accompanyeth this Disease, which comes from the great Inflamation of the Brain.

Lastly, In this Disease, the Patient never takes meat or drink, neither can you take any course to give them any thing, and therefore their strength soon faileth.

An Impostbume by a Wound or Contusion, is known by these signs following:

After the Wound or Contusion is received, there is a kind of numbness and sadness in the Body, the Animal Spirits beginning to be weakened by the matter which is got out of its Vessel. When the Disease encreaseth, there ariseth a kind of Feaver, when the matter begins to putrifie, thence comes head-ach and drouzines: after, when putrefaction is encreased, al the symptomes grow stronger, the Feaver sharper; the Patient rising from sleep suddenly roareth out, and then presently lyeth down again; he often brings his hand to his head: Hence it is, that many before they die do send forth filthy green matter out of their mouth and nose.

As to the Prognostick part thus:

This Disease is most dangerous, and commonly deadly, even in three daies space, as *Hippocrates* sheweth in his 51. Aphorism, Sect. 7. saying, *That they who have a mortified and putrified brain, die in three daies; but if they live longer, they recover.* *Galen* in his Comments teacheth that we are not to understand here by a Spacelus, a compleat corruption of the Brain because that is uncurable, but such as is at hand by reason of the great Inflamation.

In those which recover, who are very few, there is no remembrance of things past: they can neither remember their Disease, nor any thing concerning it.

We must make great hast for the Cure of this Disease, for if we do not apply Remedies in the beginning, there is no time for Cure.

Therefore in the first beginning of this Disease we must let blood in great plenty, and very often twice, or thrice, or four times in the same day, as strength will permit: for al the hope of the Cure lyeth in this only Remedy; for when a great quantity of blood possesseth the substance of the Brain, which is large, soft, and moist, we cannot make so great a revulsion from thence, except we draw

draw almoſt all the blood in the veins: and here that common ſaying of *Celſus* is to be obſerved; Many things are done well in time of ſudden danger, which at other times may be omitted.

You muſt alſo give ſharp Clyſters every day, that the humors which tend upwards may be brought down.

At the ſame time apply thoſe Medicines of Roſe Vinegar preſcribed in the Chapter of Phrenzy.

For the greater revulſion and derivation, apply Cupping-glaſſes to the Shoulders and Back, with deep ſcarification; uſe Frictions and Ligatures to the extream parts: firſt open the Ankle Veins, then the Forehead, and the Arteries in the Temples; apply Horſ-leeches behind the Ears, and to the Hemorrhoids; Veſicatories to the Neck and Arms, and other Medicines which we preſcribed in the cure of the Phrenzy.

At laſt, if the Diſeaſe decline, you muſt apply to the head things that gently reſolve; among which, the beſt is, the hot Lungs of a Sheep newly ſlain.

CHAP. XIII.

Of Mania, *or Madneſs.*

Mania is *Delirium* without a Feaver, with raging and fury.

It is diſtinguiſhed from a Phrenzy, in that there is in a Phrenzy an acute Feaver, coming from the inflamation of the Brain and its Membranes. But a Mania hath no Feaver in reſpect of its Being; but a Feaver may be joyned with a Mania, coming from ſome other cauſe, but not from that which produceth a Mania. And therefore in a Phrenzy a Feaver is ſymptomatical; but in a Mania it is eſſential, and original, coming from ſome other cauſe: And ſo is *Galen* to be underſtood, Book 3. *de loc. affect.* chap. 7. where he ſaith, *The Melancholly Juyce which is made of Choller burnt, begets beaſtial madneſs, ſomtimes without, ſomtimes with a Feaver.*

It is diſtinguiſhed from Melancholly by the ſymptomes which declare the diſeaſe; for Mania is with fury and boldneſs, but Melancholly is with fear and ſorrow.

The immediate cauſes of a Mania according to *Galen*, is a cold and dry diſtemper, coming of black Choller, which is urged with many difficulties.

For if there were ſuch a diſtemper in the Brain that it would diſturb the Mind, it ſhould produce a Feaver, when a leſs heat than will produce a Delirium, can produce a Feaver, as appears in thoſe that are inflamed by the Sun.

To this Doubt, divers Authors anſwer diverſly: the Anſwer of the moſt ſolid is, That the heat which produceth a Feaver muſt be ſmoaky, that the vapors ſent to the heart may cauſe it; and this vapouring heat ought to be in a moiſt matter, ſuch as is in putrid Feavers: but in a Madneſs the Humors are aduſt and burnt, ſo that no Vapors can ariſe from them. In one word they ſay, That the heat in a Madneſs or Mania, is as heat in a live coal, but heat in a Feaver is as heat in the flame. And this anſwer is urged with a ſtrong inſtance; namely, in a Hectick Feaver, there is more conſumption of moiſture than in a Mania: yet the Feaver continueth to the abſolute conſumption of all moiſture, even Radical alſo, and the death of the Patient.

Platerus being perſwaded by this and other Reaſons, ſuppoſeth that beſides the hot and dry diſtemper, there is a malignant and venemous quality, which is the chief cauſe of a Delirium. A great probability for this Opinion is, That a raging from the Mother, comes from Seed corrupted and poyſoned in that part. Becauſe Hydrophobia or fear of water, which is a kind of Mania coming from the biting of a mad dog, is cauſed in any conſtitution, without the mixture of Melancholly: And the diſeaſe which comes from the bite of a Tarantula, is called a kind of Madneſs: And laſtly, certain poyſons do cauſe madneſs, as is reported of the Brain of a Weeſil, and Nightſhade: Therefore it is probable that ſome certain poyſon bred in the Body may be the chief cauſe of madneſs; ſince malignant Feavers which are very mild, and ſo ſomtimes that the pulſe and Urine is like to thoſe that are in health, uſe to produce Deliriums more than burning Feavers without malignity. And Experience teacheth us that Madneſs happens often, not only in Melancholly men, but alſo in all Natures and Ages, eſpecially if it be hæreditary, or come from Parents: and it is often cured by hot Medicines which have ſpecial vertue againſt it. But we muſt confeſs that this diſeaſe is oftenеſt in Melancholly people, becauſe that humor is more fit to receive ſuch poyſon. And *Galen* ſeems to acknowledg that malignity to come upon Melancholly in his Comment upon Aphor. 56. Sect. 6. where he ſaith, That the cauſe of a Mania is a Melancholly humor, not alwaies, but when it is burnt above meaſure, or when it is putrified, and hath received a malignant ſharpneſs. There remains yet one difficulty, That mad men can endure the coldeſt weather naked without hurt, and to be hot externally, which ſhews an extraordinary heat. But we anſwer, That this is not proper to all mad folks, for ſome cannot

not endure cold, but go as warm as they can. And the other are not disturbed with the external air by reason of Custom, because from custom there is no passion; so we see tender women in Winter go with naked Breasts, which are hot to the touch, albeit according to *Hippocrates* cold is a great enemy to the Breast.

The matter producing this Disease, is contained in the veins and arteries, either of the whol body, or those neerest to the brain, or in the vessels of the Brain, and in respect of the difference of the place containing, greater or lighter symptomes do arise. Somtimes the matter causing this disease is in the Vessels of the Matrix, as Blood, and Seed corrupted: hence cometh the raging called *Furor Uterinus*.

If the matter offending be in all the Veins, or those neer the Brain, there is a continual madness: but if it be shut up only in one part, the disease hath intermission, and comes by fits.

The signs by which it is known, sometimes shews the disease to be present, sometimes that it is growing.

For the knowledg of Madness to come, first consider the Natural disposition of the Patient, which is chollerick, or melancholly. So in *Hippocrates*, 2. *epid.* 5. *He who hath a Vein beating in his Arm, is like to be mad, and is subject to wrath; but he that hath it moving by degrees, is slow and stupid.* Here *Hippocrates* calleth Arteries by the name of Veins. For he doth not mean a simple, but a violent Pulsation, unto which he opposeth that which is by degrees: So that the meaning of his saying is this; They who have naturally a high strong Pulse, great and swift, are inclinable to anger and fury; but they who have a slow pulse, are dull and blockish.

Secondly, You must regard the Sex, for Men are more often mad than Women: Which is to be understood of the Original Disease of Madness; for Women are often mad by content from the Matrix.

Thirdly, The Age is to be considered; for Madness comes oftener to yong men than to boyes and old men.

Fourthly, Mark the time of the year; It comes often in Spring, oftener in Summer, most often at the fall of the Leaf, according to *Hippocrates* and *Galen*, Aphor. 20, 21, and 22. Sect. 3. In the Spring, the humors bred at other times, and kept al Winter quiet, are moved and stirred, and produce proportionable diseases: In the Summer, much choller, not only yellow, but black is encreased in them that are inclined to it, which causeth madness at that time; or else encreasing till Autumn, the disease comes then.

These Signs are more remote, and shew only in general a disposition to this disease; but these following shew it to be at hand: Constant pain in the head, watchings, short and little sleep, troublesom dreams, cares, and thoughtfulness, frights from smal causes, a rash and often fury from none, or the smallest occasion, eyes not enduring light, noise in the ears, an unaccustomed desire of Venery, Nocturnal pollutions often, laughter unaccustomed and without Reason, much talk not formerly used, and somtimes much silence. These shew that a Mania is begun.

But that the Mania is present you may know by the signs mentioned in the Definition; namely, a Delirium without a Feaver, with fury and boldness; divers are the kinds of Dotage or Delirium in divers sick men, and at divers times they come according as the cause is more or less vehement; for some have a rash madness, and seize upon every man they meet, tear their own cloathes, somtimes lay violent hands to destroy themselves. Others are milder and tamer, and hurt no body, but speak distractedly and ridiculously, somtimes they sing, somtimes they laugh, and have divers whimseys, and symptomes much like those in Melancholly men and fools.

And from the variety of those symptomes you may gather the variety of the cause: For immoderate laughter, mirth, and singing, signifie that the matter offending is dashed with much blood: but wrath, restlessness, howling, striking, pale and yellow color in the face, shew that choller is in fault: but a furious madness that lays hold on all it meets, and somtimes stayeth them, comes from choller burnt, which is called black choller; but if this black choller comes not of yellow choller, but melancholly adust, the Patient looks furiously, somtimes is long silent, and then breaks forth into earnest discourse; they are unruly and untoward, and somtimes cry and lament grievously.

The Prognostick of this Disease is,

A Mania is a strong Disease, and continueth not only months, but years, even to death, especially if it be hæreditary. All Diseases of black choller are hard to be cured, and this especially, because the Patient will not be ruled, and take their Medicines prescribed.

A Mania which comes with laughter, and those light symptoms is easier cured than that which comes with sadness and fury.

That the Disease will shortly be cured, appears by Natural Evacuations, by sweat, stool, bleeding at nose, or hemorrhoids or varices, or crooked swelled veins appears: whence *Hippocrates*, Aphor. 21. Sect. 6. if varices or hemorrhoids come to mad men, the disease is cured.

Bloody-flux, Dropsie, Tertian Ague, or Quartan happening to a mad man, takes away his disease, for

for there is a remove of the humors unto the lower parts from the Head, in which they produce a new Diſeaſe.

For the Cure of this Diſeaſe, the matter offending is to be evacuated, revelled, and repelled, the hot Diſtemper is to be corrected, the Brain and other principal parts are to be ſtrengthened, which may be done by the means following.

Firſt, Let blood, out of the vein of the Arm which appears moſt; but give a Clyſter before: the day after bleed again in the other Arm; and do thus often. For *Platerus* affirms that innumerable mad folks have been cured by Chyrurgions, and others who have ſtudied the Cure, and have let them blood twenty, or twenty ſix times; not only in the Arms, but Feet, Forehead, Noſtrils, Hemorrhoides, if the veins appear there; and alſo in the Hand, or *Salvatella*: This is to be done by degrees, intermitting Clyſters, and purging Medicines here preſcribed; Cupping Glaſſes to the Shoulders and Back with Scarification, are to be applyed after the other veins are opened: as alſo Horſleeches to the Temples, and behind the Ears.

And you muſt intermix Preparations and Purges proper for the matter offending when you let blood ſo often; and they muſt be continued long: for which uſe are al thoſe which we have mentioned for preparing and purging of Choller, to which we may ad theſe following, as being more excellent and choice.

Take of *Lapis Lazuli, one dram and an half: Diagridium half a dram: the beſt Turbith one dram: Senna half an ounce: Epithymum, and Cream of Tartar, of each two drams: Cinamon, and Citron peeles, of each one ſcruple: Saffron half a ſcruple: make a pouder: the Doſe to be given at once, is one dram, or four ſcruples, with any proper liquor or broth.*

Take of *black Hellebore one ounce: infuſe it for three dayes ſpace in four ounces of rain water: boyl them with a gentle fire, to three parts: ad to the ſtraining of the beſt clarified Honey two ounces: and take one ſpoonful in fair broth.* Or,

Take of *the Extract of black Hellebore half a ſcruple: Sirup of Violets one ounce: mix them for one Doſe.*

All Medicines made of Hellebore; as the Wine, Syrup, and Oxmel of it are very good againſt this Diſeaſe.

Hence it is reported that *Melampus* the Son of *Amythaon* the Phyſitian, Cured the Daughters of *Pretus* King of Greece with Hellebor'd wine, when by Madneſs they ſuppoſed themſelves to be Cowes.

Antimony in this Diſeaſe is not only Commended by Chymiſts, but alſo by al *Galeniſts*: both in regard it doth diſcharge Melancholly from the whole Body; and alſo becauſe the Patients wil be eaſily perſwaded to take it. The Doſe is divers according to the diverſity of the preparation of it.

Baths of hot Water are to be often uſed, and after every Purge.

The Order of Purging Medicines for this Diſeaſe is as followeth: Firſt give altering Apozems that Purgeth for three or four dayes together after you have let blood in both Arms. After give twice in a week gentler Potions, or Pouders, or a Magiſtral ſyrup: but give ſtrong Purges, only twice in a month; letting blood conſtantly before as is before mentioned.

In the time of Intermiſſion, uſe Baths, preparing Juleps, or altering Broths; as alſo ſtrengthning Opiates.

Beſides the vulgar Juleps, this following made of Juyces is very profitable.

Take of *the juyce of Borage, Bugloſs, and Pairmains, of each three ounces: Fumitory, and Succory water, of each four ounces: white Sugar ſix drams: boyl, clariſie, and aromatize them with yellow Saunders: and take ſix ounces thereof morning and evening.*

You may make Opiats as followeth.

Take of *Conſerve of Roſes, Violets, and Bugloſs, of each one ounce: Conſerve of Tamariſk-flowers, Clove-gilli-flowers, Candied Lettice-ſtalks, and Citron-peels candied, of each half an ounce: one Emblick Myrobalon candied, Confection of Alkermes and Hyacynths, of each three drams: the Pouder of the Electuary called Diamargariton Frigidum, and Letificans* Galeni, *of each one dram: Coral and Pearl prepared, of each half a dram: with the ſyrup of ſweet-ſmelling Apples, make an Opiate, of which let him take the quantity of a Cheſnut, drinking after it a little of his Julep, or of ſome other proper liquor.*

Tablets alſo may be made in this manner:

Take of *Confectio Alkermes two drams: Species de Gemmis, and Diamargariton Frigidum, of each half a dram: Sugar diſſolved in the juyce of Apples, four ounces: make Tablets of the weight of two drams, and give one for a Doſe.*

Sometimes we may try Specifical Medicines, and Amulets, or things to be hanged about the Neck; of which ſort *Sennertus* hath many: but we wil mention only one which is in a Noble Family of *Montpelior*, is accounted as an Hereditary Secret: which is this,

Take of *Balm-flowers one handful: chop them ſmall, and infuſe them in four ounces of the ſpirit*

of

of Wine: then ad of prepared Pearl half a dram: mix them, and give two spoonfuls at a time: while you use these things, you must with all possible art procure sleep by Medicines both internal and external; such as you have for the Cure of the Phrenzie.

And besides external sleeping Medicines, you must apply such Remedies outwardly to the head, which may temper and allay the vehement heat and fury thereof. And these must not only be cooling, but also more moistning and (in the beginning of the Disease) repelling.

Therefore in the beginning, Oyl of Roses, Violets, Dill, and Chamomil are very good: After you must leave out the Oyl of Roses: but when you wil Cool more, you must ad the Oyl of the Cold Seeds and Poppyes. And lastly, that they may be brought into the form of a Liniment, you may ad Butter, or the Mucilage of Linseed, or Fenugreek.

An Epithem thus made, is very good.

Take of *the water of Water-Lillies, one pint: Sal. Prunella one ounce: Camphire one scruple: mix them, and apply double cloaths dipped therein, to the fore-part of the Head.*

And Epithem of Sal Saturni, or Salt of Lead with Rose-water, is very profitable.

As also that which is formerly mentioned, made of Rose-water, red Saunders being infused therein, with Musk and Camphire.

The Chymists prefer the Balsom of Lead, and anoint the Head therewith, as with a Liniment.

But in the height of the Disease, it is very necessary to apply some Creature newly killed, or some part of it; and especially a sheeps Lungs; which must be warmed again in hot water after it is grown cold.

Some use stronger Discussients in the declination of the Disease, and also in the vigor of it after sufficient evacuation; this following Fomentation is of wonderful Vertue.

Take of *the Head Herbs with their flowers, as many as you think fit, boyl them in Spring water: then take of Bay-berries, and the Roots of black Hellebore, of each as much as will suffice: beat them grosly, and sew them into a long Bag, and then let it boyl in the Decoction before mentioned.*

Afterwards for Nine dayes together, *Take* Two Pints of the Decoction, and Foment the Head being shaved, with double Cloaths for the space of an hour: after apply the Bag to the *Coronal Suture*, binding it about with linnen Cloaths. Let the Patient lie down, and rest if he can: then wil he Purge by al the Emunctuaries of the Brain, and also somwhat by stool; so wil the filth sticking to his Skul and Brain be wonderfully dissolved, which few other Medicines can perform.

Lastly, Apply a Cautery to the *Coronal Suture*, which is much approved by *Gordonius*, who confirms the benefit of it by the History of a certain Mad-man; who had a wound in his Head, with a Fracture of the Scull; and was very wel as long as it was Open, but still when it was Healed, grew mad again.

Although the Brain be principally affected in this Disease, yet other parts are to be altered, especially the Heart and Liver, with Epithems and Liniments prescribed in the Cure of the Phrenzy.

CHAP. XIV.

Of Melancholly:

Melancholly is a Doting or *Delirium* without a Feaver with fear and sadness.

It is distinguished from a Phrenzy by want of Feaver; and from Madness, by Fear and Sadness, because that comes with Fury and Boldness.

We say this Disease hath no Feaver: namely, of its own nature of it self: but a Feaver may Accidentally be joyned with it: For nothing hindereth, but a continual or intermitting Feaver may happen to one in this Disease; but this Feaver wil not be essentially in it, as in a Phrenzy, where a Feaver is essential to the Disease.

But we may doubt how Fear and Sadness may be said to be of the essence of Melancholly: when we perceive that in many Melancholick people there is much laughter and appearance of joy. For some laugh, some sing, some think themselves to be very rich Kings and Monarchs. We Answer, That there are divers degrees of Melancholly, and divers mixtures of Melancholick humors with others; from whence come varieties of Passions, so that they who have much blood or flegm mixed with Melancholly, may have joy and Cheerfulness: but that Disease is not at that time a true Melancholly, but is more like foolishness.

Also great variety of Doting ariseth from the various disposition of the Melancholick humor: Hence it is that some think themselves to be Kings, Princes, Prophets: Others, that they are made of Glass, or Potters-Clay; or that they are barely Corns ready to be devoured by the Hens: Some think they are melting Wax, and dare not approach the Fire: Others, That they are Dogs,

Cats,

Cats, Wolves, Cuckows, Nightingales, or Cocks, whose voyces they imitate. Others fancy themselves dead, and will neither eat nor drink. Others dare not piss least they should drown the World by a second Deluge. Some think they have lost their heads, or some other Member, or that they carry the world upon their fingers end, or that they have Sparrows in their heads, or Serpents, Frogs, Mice, and other Creatures in their Bellies.

The immediate Cause of Melancholly (that I may use the words of *Galen*) is a dark spirit or vapor very black; for when the Animal Spirits ought in their own Nature to be pure, thin, and transparant for the cheerful performing of the actions of the Brain, and to cause cheerfulness, if they change their constitution, and become dark and obscure, they produce sorrow and fear. *Galen* in his 2. *de sympt. caus.* chap. 6. by an Example borrowed from external darkness, doth explain the matter: *Of those things* (saith he) *which are without the Body, we see nothing that doth more terrifie us than darkness; therefore when darkneß doth encompaß the rational part of man, it is necessary that that man should exceedingly fear who doth alwaies carry about with him, another cause of fear, besides that which is external.*

The cause of this evil disposition of the Spirits, is a Melancholick humor, which being possessed with thickness, darkness, and blackness, doth infect the Spirits, and makes them cloudy and dark.

And this Melancholick humor is cold and dry, and therefore proper for fixing and condensing of the Spirits, which fixing and condensing or thickening of the Spirits must needs cause sorrow and heaviness. For if the humor be thin and hot, as is black choller (from which comes madness) it doth rather produce fury and boldness than fear and sorrow. Therfore the immediate cause of Melancholly is thickness and darkness of the Spirits Animal; but the necessary condition, and without which it cannot be, is a cold and dry distemper. But if any shal instance of an Hypochondriack Melancholly from *Galens* third Book *de locis affectis*, chap. 7. that it is an inflamation in the Hypochondria, and therefore the hot distemper doth prevail. We answer, That that Inflamation or burning of the Hypochondria, comes from the heat of blood long retained in the spleen and Meseraick Veins by reason of obstructions, from whence many vapors are sent up into the Brain, which though they be hot, yet are overcome by the coldness of the Brain, and are easily brought to a cold and dry temper which is proper to Melancholly. But if the heat of those vapors be such, that they spoil the temper of the Brain, and make it hot and dry, then comes Madness and not Melancholly. So that in Madness or Mania, and Melancholly, there is this difference; That in the first, namely, Mania, there is a hot and dry distemper; In the other, called Melancholly, a cold and dry distemper.

The former mentioned darkness of the Spirits confirmed by *Galen*, is rejected of *Averroes*, in this respect, Because darkness brought upon the Animal Spirits, and the black cólor of a Melancholick humor cannot infect the internal Sences; according to that vulgar Axiom, There is nothing in the Understanding which was not first in the Sence; therefore since that black color, or internal darkness was not first represented to the eyes, it cannot be perceived by the internal Sences. We answer, That the blackness of a Melancholick humor, or the darknes of the spirits doth not affect the internal Sences under the notion of color; but as they are somwhat besides Nature in the brain hindering its actions. For the Animal Spirits for the perfect performance of the Actions of the brain, ought to be pure thin, and clear: But if (on the other side) they be impure, thick, and dark, they hinder the actions of the brain by infecting the species which are sent thither, even as a colored glass doth represent the species of the object to the eye with its own Tincture.

A cold and dry distemper, which is propounded for a necessary condition to this disease of Melancholly, may be opposed by this Argument taken from *Avicen* in *Fen.* 1. *Lib.* 3. *Tract.* 4. Chap. 18. he saith, *That Stammerers are for the most part Melancholick.* But these Stutterers are very moist in temper according to *Galen*, Comment. Aphor. 32. Sect. 6. where *Hippocrates* saith, That Stammerers are most subject to loosness: And *Galen* thereupon saith, That Stammerers have the moistest temper, as appears in children who are most subject to loosness. We answer, That *Avicens* Text is not to be understood of those which are true Stammerers, which cannot pronounce the letter R. of which *Hippocrates* and *Galen* spake in the Aphorism aforesaid, who are of a moister temper: But of those which are called Trauly and Stutterers, which repeat the same syllable very often before they can pronounce a whol word: Which comes from their headlong phancy, when they strive to speak very quickly, for then the tongue foldeth its self, and is constrained to stop and stay in the production of Words. And these Stutterers are of a melancholick temper.

Lastly, It may be doubted, how darkness of the Spirits should be an immediate cause of a melancholly Delirium, when every hurt action depends immediately upon some disease; but th' tenebrosity or darkness can be referred to no kind of Disease. We answer, That tenebrosity darkness, is a Disease in number, by reason that the coming thereof doth encrease the number of the things which are necessary in the Brain for the performance of animal Functions. And the instan which may be brought against this Argument, namely, That a disease is an affect of a true part, i answered in the Treatise of *Vertigo*.

The Proper signs of Melancholly, are propounded in the definition, namely, Fear, and Sorrow, without any manifest Cause, which are found in every kind of melancholly. But the several sorts of melancholly are known by their proper signs. So these following signs do shew that melancholly doth only reside in the head, namely, an evil habit of the Brain, or hot Diseases going before, by which the blood contained in its Veins, is torrefied and burned, and at last brought into a melancholick humor. Short and interrupted sleep, troublesom dreams, giddiness, noise in the Ears, and no symptomes from other parts, and especially from the belly.

That this Disease cometh from the whol Body, appears by a melancholly habit of the whol body; either Natural, known by a black color, roughness, and leanness; or acquisite, coming by cares, labors, watchings, course diet, and the like.

That it comes from the Hypochondria, these signs declare; Heart-burning with no thirst, often spitting, sowr belchings, and windy, eruptions upwards and downwards, rumbling of the guts, pain and heaviness of the midriff, perplexity, nauseousness, sometimes insatiable appetite, heart-beating, sometimes a swelling in the Hypochondria: And other signs which shall be shewn more at large in the Discourse of Hypochondriack Melancholly.

That this Disease comes from the womb, may be known by those which are set down in their order for the declaring of Hysterical Diseases.

The Prognostick of this Disease is thus:

The Disease is dangerous, if Chronical, of long continuance, and very fixed: For a melancholick humor, especially that which comes by adustion, and inclineth to black choller, contemns the force of Medicines, if weak, and opposeth the strongest: whence a melancholick humor is said to be the scourge and disgrace of Physitians.

But a new sprung melancholly coming of immediate Causes, is easily cured: For *Galen* reports in his third Book, *de loc. affect.* chap. 7. That he hath often cured a melancholly in the beginning with only Baths of sweet Waters.

The Hemorrhoids, or Piles coming upon melancholly men, sometimes bring cure, if the humors be cast down thither critically by Nature: For sometimes they come symptomatically, and multiply the matter of the Disease in many parts.

Sometimes it is cured by flux of the Hemorrhoids, by Scabs, Itch, or other diseases breaking forth of the Skin.

As to the Cure of it, from whencesoever the Disease took its original, we must observe alwaies two things:

First, That the whol Body be freed from a melancholick humor, and the filth of other humors; for it seldom happens that one part alone is troubled with it.

Secondly, That the main Cure be directed to the Hypochondria, because that in the spleen and liver there is the first generation of Melancholly, and the gathering of it is in the parts thereabout; therefore the Cure of Hypochondriack Melancholly set down by us, will serve for the Cure of other diseases of Melancholly: for you can scarce cure the Hypochondria from the abundance of any humor, and the generation of any new, but by consequence the whol body must be cured of the same. Therefore for all diseases of Melancholly those Remedies will suffice which are propounded in the Cure of Hypochondriack Melancholly.

CHAP. XV.

Of a Catarrh, or Defluxion.

A Catarrh is a preternatural Defluxion of an Excrementitious humor, from the head into the inferior parts. It is therefore a Symptome of the third kind, namely, a fault in the Excrements.

The substance of the Brain being large, needs much nourishment; of whence comes necessarily abundance of Excrements, especially by reason of the cold and moist distemper of the part: which excrements if they have only their moderate and natural quantity are received into the fore Ventricles of the Brain, and are sent by the *Choana*, as by a funnel to the moist Glandels, and so are spit forth every day from the pallat; but if they grow more plentiful, and yet consist in their Natural condition, they are dispersed about the Brain and the *Meninges*, and so are sent forth, not only by the pallat, but also by the nostrils.

But when the Brain is affected with distemper and weakness, or is constrained to receive too much and disproportionable nourishment, which it cannot sufficiently concoct, there is a great encrease of excrements. Ad further (as *Hippocrates* saith) that the Brain like Cupping-glasses applied to the body, never cease to attract humors and vapors from the inferior parts; hence the excrements are encreased,

creased, which by their quantity and quality provoking the expulsive, and overcoming the retentive faculty, run immoderately by unusual and improper waies which they find out, to the great disturbance of the Body.

Since then a fluxion is the motion of matter from one part to another, we must consider in that as in all motions, five things. The Terminus, or place from whence; the place to which it moves; the Mover; the Moved; and the waies by which it is moved. The place from whence, is the Brain; the place to which, is some part beneath the Brain; the Mover, is the expulsive faculty stirred up, or the retentive weakned; the thing moved, is an excrementitious humor; the way by which is the Pallat, Nostrils, Eyes, Ears, and insensible Passages, as also the Veins, Arteries, and Nerves.

In the place from which, or the part which sendeth forth, we may observe two kinds of Causes: One is that which begetteth much moisture in the Body; the other is that which make the humors flow: That is called the generating; this the expelling Cause.

The generating Causes consist in the hindering of Concoction, which comes either from the fault in the nourishment, or in the faculty.

The Concoction of the Brain is hindered chiefly from distemper, either cold or hot.

A cold distemper causeth that the Nourishment brought to the brain, is ill concocted and turned into flegm; as also that the vapors brought from the inferior parts, are not sufficiently discussed, but are turned and condensed into Water.

But a hot distemper doth attract more plentiful nourishment and vapors, so that Nature cannot sufficiently discuss them.

The Concoction of the brain is hindred through the Nourishment, either when there is too much, or when it hath evil qualities; so cold, gross, and slimy meats and drinks immoderately taken, cannot be perfectly concocted, and make the Brain crude and moist. So sharp and windy nourishment send many vapors to the head.

To these you may ad external Causes, which use to fill the head with superfluous humidity; as Southernly Air, long sleep, especially at noon, an idle life, and the like.

Although the Brain be called the chief sending part, yet it is not alwaies the chief cause of defluxion; but for the most part, the matter is sent from other parts to the Brain: for after evil humors are collected, either in the Veins, or any peculiar part, as the Liver, Spleen, Mesentery, Womb, not only many Vapors are sent from them to the head, but also the humors themselves are carried to the head, and descend again to the inferior parts; and the fault lieth most in the inferior parts in the breeding of a defluxion, whose distemper is divers, and the Obstruction also divers.

For a hot distemper of the Bowels, makes abundance of vapors, from which comes defluxions, as in a Stil or Alembick: But a cold distemper by weak concoction begets crude humors, which upon the least occasion fly to the brain.

But the Obstructions of the parts of the lower belly, hinder the voiding of Excrements, whence it comes, that they being encreased by degrees, when they cannot find their free and ordinary course fly up to the brain. And to this doth also concur the weakness of the brain, fit to receive these Excrements, for (as we said) the stronger parts to disburden themselves upon the weaker, and it often happens that the brain by reason of its soft and loose substance is weakest, and can less resist than solid and compact substances.

The impulsive causes are, too much heat of the brain, or coolness, or some concoction of humors: Too much heat doth extenuate and diffuse the humors contained in the brain, and opens the pores by which they use to flow: such is the heat of the head with the Sun or fire, or too much covering, smelling of hot Spices, and other passions.

Coldness doth compress the brain, and strains forth the humors therein contained, as a Spunge is squeezed in the hand: Such change is often in Winter, and especially in sudden alteration of Air; as when a Southern wind hot and moist, is turned into a North wind cold and dry; or when one going out of a hot place, comes speedily into a cold. To these Causes you may ad coldness of the feet, which by sympathy is communicated to the Brain.

Many there are who deny the aforesaid compression of the brain by cold, because cold doth incrassat and condense the humors, and makes them less apt to flow; neither doth the example of a Spunge prove any thing, which will not empty its self in the Air. But this Opinion delivered by *Hippocrates* in *lib. de loc. in homine*, seems to be true; *Fluxions* (saith he) *come of cold, when the flesh and veins of the head, are extended: for those when the head is cold and contracted, bound together, and excluding, do strain forth moisture. And also the flesh doth assist them, and the hairs are on end, as being every where strongly pressed, and therefore whatsoever is strained from thence, falls where it is occasioned.* From whence is manifest, That a Coarctation and compression of the Parts may be made by cold, and from thence a humor may be expressed. Neither doth it hinder that densation or thickening of humors which is made by cold, as was said; for it may be so when the whol body is equally cold. But when the external parts are offended by sudden cold, they are pre-

sently straitened, and strain the humor contained. Of less force is that Argument against the Spunge, that it is not expressed by the cold Air; for there is another Reason to be given of living parts, whose heat and spirits fly from the sence of cold, and cause the parts wherin they are to be contracted; which cannot be in a Spunge ful of Water. Yet we must contess, that this is not the only way by which a Defluxion comes through cold; for cold of the feet will produce a Catarrh by communicating a cold distemper to the brain by the chiefest Nerves that come through the marrow of the back bone; and this coolness goes into the innermost parts of the brain, not the external, as cold air, which affects the head immediately: therefore we may rather think in this case, that the retentive faculty of the brain is weakened by cold of the head, so that it cannot contain the superfluous humors which are many, but lets them flow forth.

There is also another way very usual, by which a Catarrh of a cold cause cometh, namely, The stoppage of the external pores, especially in the time wherein the body requireth most sweat: Hence it comes that men very much inflamed, running suddenly into the cold air, are troubled with Catarrhs. So Catarrhs comes to be most frequent in Autumn, because the Body being made thin, and the pores opened in the Summer, casting forth many excrements by insensible transpiration, if they be presently stopped by contraction of the body with cold, do cause humors and vapors to fly into the head, and center of the brain, So about the beginning of Autumn there are not only Catarrhs, but also abundance of watery humors are sent forth by most men in their urine, and by stool, which cause fluxes of the Belly at that time. But if any ask why defluxions do not last al Winter when by reason of cold the pores are alwaies stopped? We answer, That Nature doth in Winter discharge her self by other waies rather than by sweat, namely, by stool, urine, and spittle. How great that Evacuation is which is usually by insensible transpiration or sweat, is pleasantly taught by *Santtorius* in his Book *de Statica Medicina*, where he saith, That it is larger than all the sensible Evacuations put together: so that if the meat and drink of one day be eight pound in weight, the insensible transpiration will be five pound: he is very curious in this matter. What light he hath left to the finding out of Causes, and Curing Diseases, I leave to be judged by the Learned.

In the part receiving, you must consider the imbecillity, or other disposition to receive and attract defluxion. In regard of weakness, it is an usual saying among Physitians, That the stronger parts do alwaies lay their superfluous burden upon the weaker; as in Common-wealths, the Great Ones lay the chiefest burden upon the poor Commons.

Now the weakness of the parts is either Natural, or Adventitious. A Natural weakness comes from the softness and looseness of the parts from the Glandles and Lungs, do easily entertain defluxions: But an Adventitious weakness, is from a distemper, or from solution of continuity. A cold distemper by weakening the Native heat causeth the part to have less power to resist the humor flowing unto it. And also a Solution of continuity or wound, makes the part more fit to receive defluxions by its weakness; hence arose the use of Cauteries or Issues, because the part being thereby weakened, the humors do flow from other parts unto it. And so the Lungs being ulcerated receive the humors from the head, and from al other parts.

Among other dispositions for the attracting of a defluxion, heat is chiefly to be reckoned; for we may observe, that parts inflamed do plentifully attract humors. So in a Consumption, many humors are drawn from the head to the lungs, not only by reason of the ulcer, but also by reason of the inflamation. Whence *Hippocrates* speaking of a Phthisis or Consumption in his first Book of Diseases, saith thus: *The Lungs being inflamed draw humors from the whol Body, and especially from the Head; and the Head being made hot from the Body, spits forth that thick matter.*

There are two waies by which the humors are carried from the head into the inferior parts, either internal or external: The internal way is when the humor flows from the parts under the Skull, chiefly from the Ventricles of the Brain, and makes divers diseases and symptomes according to the diversity of the parts receiving, of which some have peculiar names, according to those vulgar Verses in *Schola Salerni*:

That Rheum is call'd Catarrhus *which doth fall*
Upon the Breast; upon the Jaws we call
It Branchus; Coryza *through the Nose doth fall.*

When the Humor flows upon the Breast, the Disease keeps the general name of a *Catarrh*, or Defluxion; when it falls upon the Jaws, and *Aspera Arteria*, or rough Arteries, it is called *Branchus*, *Raucedo*, or Hoarseness; when it flows into the Nostrils, it causeth not only a *Coryza* or Murth, but *Ozæna* and *Polypus*. But in other parts it produceth various effects; if it fall upon the Nerves it produceth a Torpor or Numbness, a Palsey, Convulsion, Trembling: if in the Ears, Deafness, Swelling; if in the Eyes, Ophalmy, or Inflamation, Tears, Blindness; if upon the Uvula or Pallat, Swelling, Looseness or Laxity, or Ulcer; if in the Throat, the Squinzy; if on the Lungs, the Pleurisie, Inflamation or Imposthumation, Cough, shortness of Breath, spitting of Blood, Consumption; if into the Stomach, Vomiting, want of Appetite; if into the Bowels, it causeth Diarrhæa, and Dysentery:

ſentery: therefore it is rightly conceived that the greateſt part of Diſeaſes that trouble mans Body, have their original from the Head.

Moreover, Somtimes the humor flows from the Brain with the blood into the veins, whence comes the Diſeaſe called *Febris Catarrhalis*, when Nature is ſtrongly moved to expel the ſuperfluous humor, and the Spirits being thereby much diſturbed, are inflamed, and cauſe a Quotidian Feaver: hence it is that a defluxion is reckoned among the cauſes of a Quotidian Feaver. And alwaies before the coming of the Joynt-gout or Inflamation called Eryſipelas, ſuch a Feaver doth proceed.

The external waies by which the humor flows from the head, are thoſe which are without the skul under the skin; and *Fernelius* ſuppoſed that the humors which chiefly carried between the fleſh and the skin, although by the continuity of the Muſcles, Membranes, and Nerves, as alſo the Veins and Arteries, the humors uſe to flow into the Eyes, Teeth, Jaws, Neck, Shoulders, Joynts, and other external parts.

Some Authors make difference of Catarrhs, which are theſe: Some are called Ferini, or wild; ſome Suffocating; ſome Epidemical, or common.

A wild violent Catarrh is that which by its ſharpneſs ulcerateth the Lungs, and brings a Conſumption, and it comes of a ſharp and ſalt humor riſing from a hot Liver, and ſent into the brain, and from thence into the Lungs.

A Suffocating Catarrh, is when the humor flows violently into the hollow of the Lungs, and is ſtill renewed to the danger of ſtrangling.

Laſtly, An Epidemical Catarrh hath a malign quality, and is common among the people, and comes from the corruption of the Air.

The Knowledg of this Diſeaſe, is from three ſigns: of the Subject, of the Diſeaſe, and of the Cauſe.

The Subject, or Body apt to fall into a Catarrh, is known by the ſlender Fabrick of it, eaſily pierced with either hot or cold air; as alſo by the too compact Fabrick of it, which hindereth a free tranſpiration: as alſo a weak and cold brain, which cannot diſcuſs the vapors which are ſent unto it, or ſufficiently concoct its own nouriſhment: alſo a hot brain that attracts too many vapors: alſo the contrary actions of the Stomach and Liver, when one is hot and the other cold.

The Signs which ſhew the Diſeaſe, either declare it to be coming, or preſent.

The aforeſaid Cauſes ſhew it to be coming; but eſpecially, heavineſs in the head, dulneſs and numbneſs of the Sences, long ſleep, much ſnorting, a ſnotty noſe, and more ſpitting than uſual, coſtiveneſs of Body, and abundance of wind.

The ſigns of a Catarrh preſent are manifeſt, for either the humor flowing from the brain, is plainly ſeen, or the ſwellings and pains which it produceth in divers parts.

The ſigns of the Cauſes are alſo evident; for if a Catarrh come of a cold humor, there will be ſence of cold, paleneſs of face, ſweet ſpittle, ſowr belchings, ſlimy matter, or watery, and a general flegmatick habit of Body.

But that the humor diſtilling is hot, appears by redneſs of the face, thirſt, ſaltneſs and ſharpneſs in the mouth, inflamation, pain, and ulcers in the parts affected, and a chollerick habit of the whol Body.

An external Defluxion is known from an internal, in regard the pain is more external in the former, eſpecially under the skin of the crown of the head, where ſomtimes you may perceive a ſoft tumor; often a painful combing back of the hair: and many times the humor is felt to fall down upon the outward parts with great pain, heat or cold.

The Prognoſtick of this Diſeaſe is elegantly laid down by *Cornelius Celſus*, in theſe words: *If the humor flow from the head into the noſe, it is ſinal; if into the jaws, it is worſe; but if upon the Lungs it is worſt of all.* But *Hippocrates* ſaith, That a Catarrh is very hard to be concocted in thoſe that are very old.

Where there is a great plenty of humors, either from repletion, or from evil Concoction: there is a dangerous Catarrh, for it is to be feared leſt the humor flow ſuddenly, and cauſe Suffocation, or ſome other grievous accident.

The Cure of this Diſeaſe is two-fold; The one is of the Cold, the other of the Hot Catarrh.

The whol Cure of a cold Catarrh conſiſts in the preparing and evacuating of the humor offending, and in the revelling of it if it flow to the breaſt, or other part, and the ſtopping of its motion; and after let the diſtemper of the brain be amended.

Firſt then, If the matter be much, and flow very violently, and we fear leaſt it flow alſo from other parts, eſpecially if the Liver be hot (for it is often ſeen, that men ſubject to Catarrhs, have a hot Liver, and a cold brain) we muſt breath a Vein; but if the matter be but little, and move gently, and the party be aged, and the temper of the Liver not hot, ſo that there is no ſuſpicion for humors to be ſent to the brain from any other parts, you may omit Phlebotomy.

The

The matter offending is first to be diminished with a Potion or Pills, or other Purging Medicine, mentioned in the chapter of the cold distemper of the Brain.

Afterwards the remainder of the humor is to be prepared with an Apozeme, there also mentioned; or if you fear not to disturb the humor too much, you may give a purging Apozeme, and at last make a compleat Evacuation with stronger Pills, or other Purges.

If the Catarrh be very strong, you may give that which will powerfully root out the Matter.

Coloquintida is very excellent for to purge the Brain strongly; but it worketh very violently, and is offensive with its bitterness: both which faults are corrected by steeping it in Urine; for so it laies aside its bitterness, and becomes almost without tast, and also is so gentle that it may be given to the quantity of a dram safely, and it is a most gallant Remedy for all cold Diseases in the head.

It sometimes happens that Excrementitious Humors sent from the parts beneath into the brain, produce a Catarrh: and they find a preternatural course that way, by reason the natural course by which those humors use to be evacuated is stopped; and then the Catarrh is best cured by opening those waies with gentle, mild, and constant purging, that the humors flowing upwards, are so sent downwards, and by degrees brought to their proper motion. And these gentle Purges may be made of Decoctions or Broths long continued; but in the mean while you must not neglect strengthening Medicines.

For Revulsion, apply Cupping-glasses and Vesicatories, or things to cause blisters, to the neck and shoulders, and make issues in the hinder part of the head and arms. *Zacutus Lusitanus* in *lib.* 2. *Praxis admirandæ, observat.* 160. commends Issues behind the Ears for the best remedy against all distillations from the head: And we have seen good success by them, especially in defluxion upon the Eyes. You may use Errhines, Neesings, Gargarisms, and Masticatories; but with this Caution, That you use Errhines and Neesings only when the Catarrh falls upon the Jaws, Lungs, and Stomach; but when it falls into the Eyes or Nose, use Masticatories and Gargarisms.

The forms of all these Medicines were set down in the Chapter aforegoing. But observe in the use of them, that when the matter is somwhat thin, you use not strong discussients and dissolvers, for by these you shall cause the humors to flow more violently upon the Breast, Lungs, or other parts; but you must mix some thickning things that may constrain the humor, as red Roses, Mastich, Coriander, Nutmeg, and other things which we shall declare more at large in the hot Catarrh. You may make an Errhine for this purpose as followeth:

Take of *Marjoram Water four ounces: the Juyce of Bettony one ounce: Nigella or Gith seeds poudered, half a dram: Nutmeg one scruple. For rich people you may ad two grains of Musk and Amber-greece.* Or,

Take of *Lignum vitæ one ounce: Spring Water one pint: Infuse it all night upon warm embers; then boyl it to the consumption of half, adding in the conclusion, sweet Marjoram, and red Rose leaves, of each two pugils.*

So when the matter is but thin, you may make a Masticatory, either of Mastich alone, or after this manner:

Take of *Nutmeg one dram: Mastich, and Gum Arabick, of each half a dram: Pouder them, with Rose water make Troches to chew.*

The best Neesing is made of black Hellebore, and Sugar, equal parts.

The Extract of Tobacco made in *Aqua vitæ*, and held under the tongue in the bigness of a Pease, brings forth abundance of Water; but if you take too much, or swallow it down, it will cause violent vomiting. We have shewed that Caueries to the Arms, hinder part of the Head, and behind the Ears, are very good, as also to the nape of the Neck, and Shoulders, which are now adaies in great request. But there is a new place found out by some, namely, in the Neck, neer the Jugular veins, between the Muscles: And by this means two men have been cured of old Catarrhs which caused hoarsness.

Finally, After convenient Evacuations, things that strengthen the Brain and dry it, are to be used both internally and externally, as Opiates, Pouders, Bags, Fumes,, described in the Cure of the cold distemper of the Head. But you must remember to put unto them some Conserve of Roses, Nutmeg, or white Frankincence, when you cure a Catarrh.

The Decoction of Mastich Wood used as a Sudorifick, dries the Brain, and stops Defluxions. For which, the following things are good.

Take of *Coriander seed prepared half an ounce; Nutmeg and Frankinsence, of each three drams; Liquoris and Mastich, of each two drams; Cubebs one dram; Conserve of red Roses one ounce; white Sugar dissolved in Rose water ten ounces: Make a Confection in little rolls, weighing three drams. Let him take one morning and evening.*

These following Troches are much commended by *Solenander*, Cons. 10. Sect. 4. which he borrowed

which he borrowed from both the Ancient Greeks and Arabians.

Take of the beſt Frankinſence and Juyce of Liquoris, of each one dram: Opium, Saffron, and Mirrh, of each one ſcruple: With Syrup of Poppies make Troches, or Pills to be taken now and then, two ſcruples, or half a dram at a time.

Theſe Tablets following are very good:

Take of Diambra, and Diamoſchi dulcis, of each one dram: white Amber one ſcruple: Oyl of Annis ſeeds, three drops: Sugar diſſolved in Lavender Water, four ounces: Make Tablets of two drams in weight; take one morning and evening.

The Baſtom for the Head preſcribed in the Chapter for the cold diſtemper, after the Opiate is excellent taken inwardly, and into the noſtrils.

Lac Sulphuris, and the flower of Brimſtone are commended by Chymiſts for the Cure of a Catarrh: and the Galeniſts uſe it much in Tablets.

In a new Catarrh, Water of Nuts, with Hydromel, given three nights together doth much hinder it.

Shave the fore part of the head, and apply a Cataplaſm, of two ounces of Leaven, and two drams of Amber: But if the Patient will not permit his head to be ſhaved, let it be cut, and lay a bag of Chamepits or Groundpine, mixt with Amber.

Beſides the afore mentioned Fumes, one made of Tacamahaca is excellent; for it dries a Catarrh, and hinders his Motion; neither is the ſcent too ſtrong, but the Patient may ſhut it into his chamber without offence.

It is profitable to dry the Head with bags of Bran, Gromwel, and Salt, Leaves of Sage, Bettony, French Lavender, Annis ſeeds, Fennel ſeeds, and the like.

Laſtly, If the Diſeaſe be ſtubborn, all thoſe Medicines which are mentioned in the cold diſtemper of the head, are to be uſed.

A hot Catarrh is Cured by Medicines which diſcharge the matter offending, and which do thicken it, and revel it; as alſo by correcting the diſtemper of the parts, ſending and receiving it.

For this end, firſt let blood, if nothing hinder, by which the humor flowing is revelled, and the ſharpneſs abated.

Then carry away part of the humor by a gentle Purge, which may no waies ſtir violently the humors, as followeth:

Take of the beſt Rhubarb, four ſcruples: Citrine Myrobalans rubbed with the Oyl of ſweet Almonds, half a dram: yellow Sanders half a ſcruple: Infuſe them in Lettice and Purſlain Water, and ſtrain it, adding of Manna and Syrup of Roſes Solutive, of each one ounce: Make a Potion.

Or inſtead of the Waters afore mentioned, you may make a Decoction of cold Herbs, and Tamarinds; to which you may put your Purgatives.

Then you muſt alter and thicken the humor with convenient Juleps.

Take of Lettice, Purſlain, and Plantane, of each one handful: the four great cold Seeds, white Poppy ſeeds, of each two drams: Violets, Water-lillies, and red Poppies, of each one pugil; boyl them to a pint: Diſſolve in the ſtraining, the Syrup of Violets and dried Roſes, of each one ounce and an half. Make a Julep for three draughts, to be taken twice in a day.

Or inſtead of this Decoction, uſe the diſtilled Waters of thoſe Herbs, or Emulſions of the four great cold Seeds.

After uſe a little ſtronger Purge, putting to the former, Senna, or Catholicon, or Diaprunes, or the like.

A light ſweet Medicine, thickening and ſweetening the humor, is made of the Yolks of two new laid Egs, diſſolved in five or ſix ounces of ſpring Water with one ounce of Sugar; heat them well, and ſtir them upon the fire, and take it as hot as you can morning and evening for three daies together.

And at laſt you muſt labor for a ſtronger reſtraning of the flux, and thickning of the humor with this Syrup.

Take of Syrup of Violets and dried Roſes, of each one ounce: Syrup of Poppies half an ounce: Give an ounce at a time in a ſpoon at Bed time.

The following Opiate is good for the ſame purpoſe.

Take of old Conſerve of Roſes ſix drams: the ſpecies of Diatragaganth frigid. two drams: Bole-armenick waſht in Roſe water, two ſcruples: With the Syrup of dried Roſes make an Opiate. Take the quantity of a ſmal nut at night.

This Barley Cream is very profitable.

Take of cleanſed Barley as much as is ſufficient, ſteep it ſix hours, and then boyl it well, and ſtrain it; then take three ounces of blanched ſweet Almonds; Pompion ſeeds huſked, one ounce and an half; Melone ſeeds one ounce; white Poppy and Lettice, of each half an ounce: Beat them together,

gether, and with Barley Water take out the Milk, which with two pound of the Pulp of Barley boyl a little and mix it with Sugar: Let him drink ten ounces at a time, some mornings in his bed, and sleep after it, and sometimes in the evening. Hold the Troches in the mouth.

Take of *Gum Traganth, and Arabick, of each two drams: Bole-armenick, and Terra Sigillata washed in Rose water, of each one dram: white Poppy seeds, and juyce of Liquoris, of each half a dram: Sugar Penids one ounce: With the Mucilage of Quince seeds, extracted with Rose water, make little Cakes to be held in the mouth day and night.*

The Spirit of Sulphur and Vitriol, three or four drops given morning and evening in convenient Liquor, hath great force against all Catarrhs, especially against those which come from Inflamation of the Bowels: It may be given in drink in a smaller quantity, for it goes with the drink through all the veins, and hinders the motion of the humors.

The Crystal Mineral is for the same use given with Juleps and other Medicines.

When these do not avail, we must be constrained to use Narcoticks or Stupefactives: Among which Laudanum is the best, given to four or five grains at bed time; or one ounce or half an ounce of Syrup of Poppies: These do wonders being used in the beginning of the Disease. New Treacle given at night from a scruple to half a dram, hath the same force.

Benedictus Faventius useth the following Pills in a Salt Catarrh with good success.

Take of *the Juyce of Liquoris two drams: wash'd Aloes one dram:* Pilulæ de Cynoglosso, *half a dram: With Syrup of Violets make a Mass, of which take a scruple at bed time.*

The Troches of *Solenander* before mentioned, are excellent.

Diacodium album prescribed in the Cure of the Phrenzy is good for this.

In the mean while the matter flowing must be revelled by Clysters, Cupping Glasses, Frictions, and binding of the external parts, and chiefly by Vesicatories in the Neck, and finally with Issues in the hinder part of the Head and Arms, if the Catarrh be old.

But for the strengthening of the Head, and stopping of the fluxion, and consuming the remainder; Pouders, Bags, and Emplasters, are good.

Take of *white Amber, Sandarach, Mastich, Benjamin, Nutmeg, of each one ounce: Frankinsence, Grains of Kermes, and red Roses, of each half an ounce: all the Sanders, Mirtles, and Pomegranate flowers, of each two drams; make a Pouder. Use it to the Head at night, and comb it off in the morning.*

Take of *the Gum of Juniper two scruples: red Roses two pugils: Mirtles one dram: Mace and Nutmeg, of each one scruple: Frankinsence, and Peony seeds, and Poppy heads, of each two scruples: Cyprus nuts half a scruple: Pouder them, and take them up with red wool; and with a red cloth make a lining for a Cap to wear constantly.*

Take of *Mastick and Frankinsence, of each half a dram: Sandrach, red Coral, red Roses, Mirtles, Pomegranate flowers and Peels, of each one dram: Labdanum two drams: Wax and Oyl of Roses, as much as is sufficient. Make an Emplaster for the Coronal Suture.*

But because this Catarrh for the most part comes from a hot distemper of the Liver, therefore you must use Medicines to that.

Finally, This is most remarkable, which is also mentioned in the Cure of a cold Catarrh; That Excrements use to cause Catarrhs by flowing to the Head when their usual natural passages are stopped: And then a Catarrh is best cured by opening those passages with a gentle and constant purging in Broths, or the like.

CHAP. XVI.

Of the Head-ach.

The word *Cephalalgia* is used generally for every pain of the Head: but more especially it signifieth a new Head-ach: But the word *Cephalæa* signifieth an old Head-ach; and *Hemicranea* signifieth that pain which only is in one side of the Head.

There are other differences of Head-aches: they are divided into Internal, and External; Pains by consent, and by propriety: and of these, one is called a pricking pain; another a stretching, or extending pain; another a heavy; another a beating or shooting pain.

The internal pain of the head is in the Meninges or Membranes, that is very deep, and reacheth to the roots of the Eyes: But an external pain is in the Pericranium or Membrane without the Skull, and will not endure the roots of the hairs to be combed back, and is made greater by the least compression of the Head. This is the Doctrine of *Galen*, which he teacheth 3. *de loc. aff. cap.* 1. and *lib.* 2. *de comp. med. secundum loc. cap.* 3. saying very solidly, That the internal Head-ach is distinguished from the external by this peculiar sign, That in the internal the pain comes to the roots of the

the eyes, not in an external, and he gives this Reason, Because the coats of the Eyes come from the *Meninges* of the Brain, whence it comes that the grief is conveighed to the Eyes. But *Fernelius* contradicts this Doctrine, *lib.* 5. *Pathologiæ cap.* 1. and affirmeth, that external pains do reach to the roots of the Eyes, because the *Pericranium* or Skin of the Skul wherein those pains are, doth reach to the cavity of the Eyes: to whom *Rondoletius* answers, *lib.* 1. *meth. med. cap.* 5. that the Cavity of the Eye doth not suffer with the Pericranium, although it reach to it, by reason that the pain of the Pericranium comes for the most part of external cold; for a cold part will easily suffer from the like quality. But that cold cannot reach to the hollow of the Eye, because it is preserved by the heat, blood, and spirits of the Eyes; but if at any time a headach cometh of external heat, or the like, the Skin of the head is only affected, not the Pericranium which lieth deep. But this Doctrine of *Rondeletius* doth not altogether take away all difficulty; for although all things which he alledgeth should be granted, yet if a pain arise from a tumor gathered upon the Pericranium, or of some other cause that dissolveth continuity, and divideth, there is no reason why the grief should not reach to the hollow of the Eye. We can say this in defence of *Galen*, that this sign was given by him for two Reasons: First, Because the Membrane which reacheth to the hollow of the Eye from the Pericranium, is not so sensible, and therefore cannot suffer but obtusely: but the coats of the Eyes which come from the *Meninges* are very sensible, and therefore have great pain: Moreover, that Membrane which cometh from the Pericranium doth not touch the Eye so inwardly and deeply towards the optick Nerves, as the coats which come from the *Meninges*, whence it is that the external pain cannot extend it self to the roots of the Eyes as *Galen* saith.

A pain by propriety is constant and permanent, nor doth it follow the disease of other parts: But a pain by consent or sympathy, depends upon the infirmity of another part, so that as that encreaseth or diminisheth, the Headach encreaseth or diminisheth. Now this pain by sympathy, is either by consent from the whol Body, as in Feavers; or from some peculiar part as the Stomach, Liver, Spleen, or Mother.

But we may know what part is affected when a pain is communicated to the head by its proper signs.

A pricking pain comes from a sharp chollerick humor or vapor which toucheth the Membranes of the Brain. A heavy pain comes from much thick, and cold matter, namely, flegm or melancholly compressing the sensible parts. An extending pain comes from wind or mild humors which work themselves into the Membranes and distend them. A beating or pulsative pain, comes of thin chollerick blood or spirits abounding, by which the Arteries being stretched and swoln, do beat more vehemently, and shake the Membranes, and so striking the adjoyning parts, cause in them a sence of Pulsation, as *Galen* teacheth more at large, 2. *de loc. aff. c.* 3.

From what is said, the chief causes of a Headach are sufficiently declared, which in general are referred to the solution of continuity, as to the immediate cause: For whatsoever doth bring a manifest or hidden solution of continuity, is like to bring a headach.

The signs of the kinds of Head-ach, and of the causes that produce them, may be learned from what is said, and therefore we come to the Prognosticks.

An external headach is alwaies less dangerous and easier cured than an internal.

A Headach in a sharp Feaver with thin and white urine is dangerous, for it signifies the chollerick matter is sent into the Brain, whence there is fear of a Phrenzy.

A strong pain of the Head suddenly seizing without evacuation following, or mitigation of the disease, is deadly: for it signifies the destruction of the animal faculty, which no more feeleth that object which caused the grief.

In a great Headach it is evil to have the outward parts cold; for by the vehemency of the pain there is a strong attraction of heat to the part affected, which wil cause inflamation.

They that recover of a disease in the inferior parts, and have after a vehement Headach, if a manifest evacuation went not before, will have an impostume in their Brain, for it signifies a translation of the matter which caused the disease into the Brain.

They who vomit green in a headach, and are deaf being awake, are suddenly very mad, 1. *Porrh.* for it signifieth a collection of choller into the Brain, which maketh the Stomach consent therewith and suffer.

Headach and noise in the Ears without a Feaver, or a giddiness, or deafness, or numbness of the hands, signifieth an Apoplexy or Epilepsie to be at hand, *Hipp.* in *Coacis*: For those symptomes come from abundance of thick flegm in the Brain.

To women with child sleepy and heavy headaches are evil, 1. *Porrh.* for they signifie the flux of humors to the head, which when they are many in women with child by reason they have not their courses, do threaten danger.

A Headach which was not from the beginning of the Disease, but rose from the disturbance of the body, shews that there will be a crisis by bleeding at the nose, or by vomit.

Since then the pain of the head cometh either of a cold or hot cause, we must direct the Cure for the taking away of both.

For the Cure of a cold Head-ach the flegmy matter is first to be evacuated being prepared, as is shewed in the Chapter afore going. Then we must correct the cold distemper of the Brain, and the reliques of the humor are to be discussed with Bags, mentioned in the former Chapter, or in the Chapter of the cold distemper of the Brain: With which being warmed, let the head, being shaven, be rubbed for an hour and an half every morning till the cause of the pain be spent and exhausted.

After the head is well rubbed, sprinkle upon it this following Pouder, having upon it Cotton or Wool.

Take of *Nutmegs, Cloves, Pepper, Pellitory, of each half an ounce: the Leaves of Sage, Bayberries, of each two drams: Mustard seed, and Water-cress seeds bruised, of each six drams: Make a pouder of these, sprinkle it upon the Head as aforesaid; and comb it in the morning before the use of the little Bags, that the pouder laid on the day before may be taken off.*

Errhines are also profitable, Neesings, and Apophlegmatisms or things to chew, which were described formerly.

A Magistral Syrup also made as followeth is very profitable.

Take of *Guajacum wood, and Roots of* China *sliced, of each one ounce and an half: Infuse them twelve hours in four pints of spring Water: Boyl them till half be consumed, adding in the end, the Leaves of Vervain one handful; the flowers of French Lavender and Marjoram, of each a smal handful: dissolve in it being strained half a pound of white Sugar. Boyl it up to a Syrup; but before it be perfectly boyled cast in two ounces of Senna tyed in a clout; the best Agrick two ounces; Rhubarb three ounces: let him take two or three ounces, once a week.*

These Pills also following are very good which in times past were of great esteem in *Italy* in the daies of *Eustachius Rudius* chief Professor in the University of *Padua*, who was reported to be the Inventor of them, and accounted them a great Secret; and therefore gave them to one Apothecary only to be made by him, lest others should know the Receipt which indeed he borrowed out of *Wickgrus*, who propoundeth it from *Andernacus*: and it is thus:

Take of *Coloquintida six drams: Agarick trochiscated, Diagridium, black Hellebore, and Turbith, of each half an ounce: Aloes one ounce:* Diarrhodon Abbatis *half an ounce: Let the purging things be bruised and beaten together, and put in a glass with the spirit of Wine, so much as is sufficient, and let them be digested for eight daies in a warm place, and then ad the pouder of Diarrhodon, and infuse them four daies longer, then strain them and press them, and let the Liquor so pressed forth be distilled in* Balneo, *so long till the extract in the bottom of the Alembick grow so thick that it may make Pills, the dose whereof is one scruple.*

But the following Pills are ascribed to *Fernelius*, of which he affirmed he found by experience such excellency, that he never met with a *Cephalalgia*, or *Hemicrania*, that is, half Headach, but he cured it.

Take of *the best Aloes half an ounce: the Pouder of the Electuary of Pearls, the three Sanders, and red Roses, of each three grains: With Syrup of Wormwood, and Violets, make a Mass. Give a dram thereof twice in a week one hour or two before Supper.*

And finally, in a stubborn pain that is old, all those Medicines are convenient, which were before mentioned in the Cure of the cold distemper of the Brain; among which, Epispasticks, or blister-drawing Plaisters are not the meanest. Which also not prevailing some are so bold as to apply *Vigo*'s Emplaister with Mercury, which they say hath cured old headaches sometimes, by causing them to spit much.

Baths of Brimstone and Bitumen are very efficacious in this case, used both to the Head, and the whol Body.

Also in an old Headach, sweating Decoctions are very good, and famous Authors declare that many have been cured thereby,

Which not prevailing, *Mercatus* is bold to fly to the use of Stibium, and commends it highly in his first Book of the Cure of internal Diseases, and the eighth Chapter. But in an old grief, it is better to strengthen the head often, than to use too many Evacuations: Therefore Pouders and Caps, and other topick or external Medicines are very necessary before mentioned in the Cure of the cold Distemper of the Brain.

But Pouders are more commendible, because the vertue of a Cap is not so much communicated to the Brain, and the pain may be encreased by the filth which is contracted by the long wearing of them.

Moreover, An Oyntment may be applied of the Oyl of Almonds, in which wild Bettony, Bay leaves, Mastich, Lavender, Mints, Marjoram, Thyme, Penyroyal, Nutmeg, Cloves, and Cinnamon, or some of these have been boyled, adding in the time of the boyling a little red Wine.

Or this following Chymical Oyl.

Take

Take of *Turpentine one pound*: *Maſtich, Nutmeg, Cinnamon, of each one dram*: *Cloves, Zedoary, Galangal, Ladanum, of each one ounce and an half*: *the juyce of Ebulus or Dwarf-Elder, and of the wild Cowcumber, of each one dram*: *the Oyl of Chamomel and Lillies, of each half a pint*: *red Wine one pint and an half*: *wild Marjoram green one handful*: *Pouder thoſe that are to be poudered, and put them into a Glaſs Retort, and extract an Oyl; with which anoint the head after it is ſhaved.*

Oyl of Amber is very good, and it will be ſufficient only to anoint the Head therewith.

While you uſe the afore mentioned Remedies, you may alſo uſe from the beginning of the Cure ſpecifical Medicines, ſuch as this Epitheme.

Take of *the pouder of Zedoary one dram*: *the Water of Bettony, Vervain, and Elder, of each one ounce*: *Mix them and apply them hot to the part grieved with Scarlet cloth.*

Among the proper Medicines for the Head-ach, from what cauſe ſoever it ariſeth, Vervain is the chief; whoſe Water diſtilled, you may both apply externally, and give of it internally to the quantity of ounces, with three drops of the ſpirit of Salt. Green Vervain alone only hung about the Neck, hath cured two Patients when many other Medicines failed, as *Foreſtus* reports.

Zacutus Lucitanus in *Lib. 1. Praxis Med. mirab. obſervat. 7. 8. 9. & 10.* propounds four Remedies, confirmed by Experience; namely, An Iſſue in the back of the hand, Horſ-leeches to the Temples, opening of the Vein in the Forehead and the corner of the Eye, which you may read in the place cited.

Theſe things are to be noted concerning thoſe Obſervations:

Firſt, That the Iſſue between the Thumb and fore Finger is approved by other Experiments, and hath cured great Headaches.

Secondly, In the Cure by Horſ-leeches, *Zacutus* is not content to apply two or three as ordinarily is done, but ten or twelve round about the Temples; whence comes a great attraction of Blood, which may draw forth the whol matter of the Diſeaſe.

Thirdly, In the Curing by opening the Veins in the Forehead, we muſt obſerve, That that Vein was twice opened, whence it appears that the firſt was not ſufficient; when ordinarily our Practitioners do ſeldom open it the ſecond time, if the firſt hath been to little benefit.

The hot Cauſe of a Primary and Eſſential Headach, is Blood or Choller. And the like Remedies are proper for both, though they muſt be made ſtronger or weaker according to the ſtrength of the Diſeaſe.

Firſt then (after a Clyſter is adminiſtred) begin with Blood-letting, drawing forth more when the grief proceeds of blood, than when it proceeds of choller.

Then give a Medicine to purge Choller, not only when Choller is the Principal Cauſe, but when blood aboundeth whoſe thinner part is eaſily turned into Choller.

If the matter offending is not ſufficiently taken away by one purge, you muſt purge again at a due diſtance.

After apply Repelling Medicines to the Head, and Vinegar of Roſes, ſuch as were propounded in the Cure of the Phrenzy, making choice of the mildeſt.

And after it will be very profitable to apply Creatures newly killed, or parts of them, to diſcuſs the reliques of the Diſeaſe, and to aſſwage the pain.

In an Headach which goeth with a continual Feaver, a Sheeps Lungs applied hot do much aſſwage the pain.

Alſo a Cataplaſm of bruiſed Guords, and Houſleek to the feet.

The opening of the Saphena after ſufficient bleeding in the Arm, cures often times a Headach with a Feaver very ſuddenly.

You muſt uſe Cupping-glaſſes with, and without Scarification and Frictions of the extream Parts.

And in the whol time of the Diſeaſe, if the Belly be not looſe, you muſt every day give an Emollient and cooling Clyſter, and which do gently purge.

After general Evacuations and Revulſions, you may rightly, and with profit derive the matter by opening the Head Vein, or with Horſ-Leeches to the Forehead, or with Veſicatories to the Neck.

In the mean while let the whol maſs of Humors be qualified with Juleps, Emulſions, and Broths, as was mentioned in the Cure of the Phrenzy.

Laſtly, If the pain be very violent you muſt apply Narcoticks both externally and internally, as they are ſet down in the ſaid Cure of the Phrenzy.

Here alſo may avail the opening of the Forehead Veins, and Leeches to the Temples, commended from *Zacutus Luſitanus*.

Paræus lib. 16. cap. 4. reports that a deſperate half Headach was cured by opening the Arteries

in the Temples, and saies there is no danger in doing it. The Artery is opened as a Vein, and six ounces of blood forcibly leaping forth are to be taken: After apply a convenient Ligature, and open it not in four daies.

Botallus also saies, That it doth miraculously cure old Head-aches; and we also have cured desperate ones the same way, and never found any danger in the opening of the Artery.

You must apply a Plaister to the Orifice, of Frankinsence, Mastich, Bole armenick, and Hares Hair, with the white of an Eg, and then make your Ligature as you use to do in Wounds of the Head.

In all pains of the Head, of what cause soever, if other means fail, and the greatness of the pain, make thee run to extremities; a Vesicatory applied over all the Head, after it is shaven, will cure it.

A Cautery upon the Coronal Suture sometimes hath perfectly cured a violent Head-ach.

But it is more powerful if it be applied to the Temples, of which see *Poterius, observat. centur.* 3. *cap.* 8. and our Observations thereon.

The End of the first Book.

THE

THE SECOND BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Eyes.

The PREFACE.

THE *Diseases of the Eyes are so divers, that it is very hard to lay them down cleerly and plainly, and to distinguish one from the other: which that we may endeavor as much as may be, and cleer up our Treatise for Practice, we will so divide them, the Diseases by which the sight is immediately hurt, may first be expounded, and afterwards the rest which happen to the Parts of which the Eyes are Compounded, or which are neer unto them, without any, or very little hurt to the sight. The sight is hurt when it is diminished, abolished, or depraved. Sight abolished is called* τύφλωσις *in Greek: in Latine* Cæcitas. *But sight diminished hath divers Names according to the degree and manner of the diminution: of which the chief are* Amblyopia, Myopia, Nyctalopia, *and* Acies Vespertina.

Cæcitas *blindness, comes either from an absolute Obstruction of the Optick Nerves (and then it is called* Amaurosis) *or from a total Suffusion, or from some great fault in the Tunicles and Humors.*

Amblyopia, *in Latin* Obscuritas, Hebetudo, *or* Caligo, *dark or dim sight, when the Object is not cleerly seen at what distance soever placed; comes from the same Causes, but more light and imperfect, as an imperfect Obstruction of the Optick Nerves, a light suffusion, want of spirits or grossness of the same, and the like.*

Myopia, *in Latin* Luscitas, *or Pur-blindness in which the Objects are not perceived, except they be very nigh, and close to the Eyes, but not at all a far off, or very little; and imperfectly: so that they perceive not their known Friends passing by: And according to the Opinion of* Galen, *and all Modern Physitians, from the thinness and smalness of the visour spirits which stand not in need of a* medium, *much enlightned to make a perfect sight, but is thereby dissipated. On the contrary, they which have gross and thick spirits, see things best at a distance, because that gross spirits needs more enlightning which is brought by the larger illumination of the* medium: *But this Doctrine is demonstrated to be false, and to spring from ignorance in Opticks whose Principles declare, that these diversities of sight proceed from the diversity of the scituation of the Crystalline humor. For when the species of the Objects are received into the Crystalline humor by a Pyramis or sharp Point thereof called* Conus; *if the Crystalline humor be too much inward towards the pupil*

of

of the Eye, the remote Objects are better seen, because it is necessary that the Objects should be at a farther distance, that the Conus, *or point of the Pyramis may come to the Crystalline humor, and there be terminated: But if the Objects come neerer the Eye, the* Conus *goeth by the Crystalline, and they are seen more obscurely: Again, If the Crystalline lie too low and too far from the Tunicle called* Uuea, *the Objects must be neerer to the Eyes, that the* Conus *or point of the Pyramid may come to it: whence it appears that* Myopia *comes no other wayes then from the Crystalline lying too low; and so this Disease becometh connatural, and not to be cured. But the affect of* Myopia *is contrary in which the Object is better seen at a distance; and this happens for the most part in Old Men, in whom some of the portion of the watery Humor is spent, so that the Crystalline goes to the Pupil of the Eye: Farther, By long holding down of the Head either with Reading, Writing, or otherwise, the Crystalline Humor comes by degrees forward: This is demonstrated by the use of Spectacles; because that they who have* Myopia, *or are Pur-blind, see best with hollow or concave spectacles, by which the rayes or beams of the visible species are dispersed, whereby it comes to pass, that the* Conus *of the Pyramis is more long, and so that thing which by reason of the great distance could not be seen, is now plainly perceived; because the* Conus *of the Pyramis is extended as far as the Crystalline, which before ended in the Pupilla, or in the watery Humor, or in the white Humor: On the contrary, Old Men are helped with Convex Spectacles, by which the beams are united, and the* Conus *of the Pyramis is made shorter, and so things are better perceived whose* Conus *before passed by the Crystalline, which was too neer to the Pupilla.*

Nyctalopia, *or* Nocturna Cæcitas, *is when men see well enough at day time; at Sun-set worse; and at Night not at all: and it comes from the over thickness of the Spirits, or Humors, or Tunicles; or the straightness of the Pupilla. For in these Cases a greater light is necessary for true sight, which being wanting, at Sun-setting, or at Night by a Candle, they see little, or not at all.*

Vespertina Acies, *is when men see worse by day, and better by night; and this somtimes is called* Nyctalopia, *as we see in* Hippocrates, 2. Prorrhet. *but the Modern Greeks have from long Custom used the word* Nyctalopia *only for Night blindness: it comes from the thinness of the Spirits which are spread abroad by too much light: or from the enlarging of the* Pupilla, *by which too much light goes into the Eye, and hurts the sight, for a little light at night doth more illustrate and shine to them, than to those who have the* Pupilla *enlarged.*

After what manner the sight is hurt by diminishing, abolishing, and depraving, we shall lay down more plain when we explain the Diseases of all parts of the Eyes by themselves. For when all the parts of the Eye do conduce to the action of it, namely Sight, when any part is distempered, the sight must also suffer.

The Eye is compounded of Tunicles, Humors, and the Optick Nerve, for the action of which parts, the Animal Spirit doth concur as a principal and universal Agent.

And therefore that we may run through the Diseases of those parts, we will begin from the distemper of the constitution of the optick Nerve; next we will proceed to the Disease of the Humors and Tunicles. But the faults of the Spirits either depend upon the distemper of the Brain, and then other Sences are also hurt; or from the distemper of the Eye it self, which being cured the spirits receive their ancient and due constitution, so that we need not make a particular tractate of them. But in curing Diseases of the Eyes, when sight is hurt, we must alwaies mingle those things which comfort the visive spirits with other Medicines.

CHAP. I.

Of Gutta Serena, *or* Amaurosis,

When the sight is gone, and no fault appears in the Eyes, it is called *Gutta serena*, or *Amaurosis*. And it comes to pass, when the Animal Spirits cannot pass from the Brain to the Eyes; for when the Animal Spirits come into the Eyes from the Brain by the Optick Nerves, we must find out the stoppage of their influx in the Optick Nerves. The Optick Nerves are many wayes affected, but chiefly by obstruction or stoppage, astriction or binding, and by solution of continuity.

Obstruction is the most common and most ordinary cause of *Gutta serena*, which comes of a watery humor flowing down from the Brain upon the Nerves, even as other Nerves are obstructed in a Palsey by the same humor; so that the Diseases may be said to be alike by reason of that Obstruction.

But

But it is most certain that this Disease is also begot by adstriction and compression of the Optick Nerves; which compression may come both of a moist humor gathered about the optick Nerves, and pressing upon them: as also of blood, filth, or matter: Whence sometimes certain tumors rising in those parts, produce the like Disease. For Experience teacheth, That sometimes blindness in one Eye, sometimes in both, comes upon inflamation of the Brain, and from Phrenzy in malignant Feavers. And *Platerus* reports *lib.* 1. Observation, That he saw a blindness which came from a round tumor growing in the Brain, and compressing the optick Nerves, which appeared by opening of the Head after the Patient was deceased.

Finally, Wounds in the Head, in which the Optick Nerves are divided, without controversie do cause that the Animal Spirits can no more come to the Eyes.

This Disease is known, in that the Eyes seem to be in their natural condition, and there is no fault apparent in them, only the *Pupilla* seems blacker and larger. But in distinguishing the differences of Causes, there is great difficulty; for although the Disease coming of blood or matter is known by inflamation, aposthume, or wound going before, yet no certain sign can be given by which we can distinguish a compression made with flegm from an obstruction: but we may in some part conjecture, for in the obstruction only of the optick Nerve, the Eye is only affected; but if a compression be made of the same Nerve by flegm gathered about the roots of the Eyes and Mamillar Passages, that matter possesseth other parts of the Brain, and then all or some of the other Senses are hurt; but if it seize only upon the Optick Nerves, there is more plenty of humor sent forth at the Nostrils, and the Patient perceives a heavines in the fore part of the Head, especially about the Eye-brows.

As to the Prognostick part; If this Disease be absolute, that is, if there be a total loss of sight, especially if it come from obstruction of the optick Nerves, it is for the most part incurable; as we see in Palseys also, that they are scarce or never cured which come from the obstruction of the Nerves, especially if the Patient be old. But if the obstruction be imperfect, which only causeth a diminution of sight, but not blindness, there is more hope of recovery, although it cannot be brought about without much pains, and long use of Medicines.

But if this Disease come of humors gathered in the fore part of the head, which compress the Nerves, it may be more easily cured. So saith *Fabricius Hildanus, observ.* 19. *cent.* 5. That a certain man after a strong vomit lost his sight, and that he cured him with giving him the same Medicine again; for as the humors being too much sturred by a violent vomit, and cast upon the Optick Nerves, compressing them, did hinder the passage of the Spirits to the Eyes: so the same humors being carried away by the same Medicine, the disease became cured. Almost the like story is mentioned by *Sennertus* of a certain Student, who taking too strong a Purge became suddenly blind. He also affirmeth, That certain women after they had conceived with child, became blind through the straightness of the optick Nerves, and that this Disease went away after four or five months, or in the time of their Delivery.

We also have seen some which fell suddenly into extream diminution of sight, who within fifteen daies, were cured by universal Evacuations, and some revulsions, and by the easines of the Cure we supposed that the humor was not fastened within the substance of the nerve, but only gathered together in the Brain about the original of those Nerves.

For the Cure of this Disease, The matter fastened upon the Nerves, or cleaving thereto, and maketh the obstruction or adstriction, is to be evacuated; which cannot be done, except first the whol body be clensed, as *Galen* saith 4. *meth.* The Eye is not to be cured before the whol Head, nor the Head before the whol Body.

And that Remedies may be set down in a convenient Method, we will first set down a Course of Diet, which must be attenuating and moderately drying.

And first, The Air must incline to hot and dry, and a thick, cold, cloudy, and moist Air, must be altogether avoided. Let him eat meats of good and laudable Juyce, avoiding them which beget grois Juyce, as Pork, and all Swines flesh, Geese, Fish, Pulse, Cheese, and the like; as those which are windy, and fill the head, as Milk-meats, and hot Spices, *viz.* Pepper and Ginger, &c. Let his Bread be made with Fennel Water, or with the Seeds thereof; being careful that the Wheat of which it is made, be not mixt with Darnel, which all the Ancients beleeved to be very naught for the Sight: hence in the Comedy, he that derideth another for defect in his sight; I think (saith he) thou hast fed upon Darnel. In the sawce to his Meat, and in his Broths, let him use things extenuating, as Hyssop, Fennel, Marjoram, Bettony, Sage, Eye-bright, and especially Nutmeg, which strengtheneth the Brain, and clears the Sight. He must eat Turneps often, which are thought to quicken the Sight: So do Sparrows, Pidgeons, often eaten. Cold Herbs must be forborn, and especially Lettice, which hurts the Eyes.

Let him take but a smal quantity of Meat at a time, and let the sick man never fill himself immoderately: Let his Supper be less than his Dinner: and to abstain from a Supper twice or thrice in a week is very good. At his Meat, instead of Salt let him use this Powder following:

Take

Take of *common Salt two ounces*: *Eyebright dried two drams*: *Nutmeg one dram*: *Cinnamon two scruples*: *Mix them into a Pouder.*

After every Meal, let him take one spoonful of the Pouder following:

Take of *Coriander seed prepared half an ounce*: *Annis seeds, and Fennel seeds, of each two drams*: *Cinnamon and Nutmeg, of each one dram*: *Eyebright dried three drams*: *Sugar of Roses, a double weight to all the rest. Make a Pouder.*

Wine in this Disease is not good, because it is too full of vapors, and fills the Head, and is apt to cause defluxions: therefore a Decoction of Sarsaparilla, sweetened with Liquoris, and aromatized with Coriander, will be very profitable. But because the Disease is of a long continuance, and all cannot abstain so long from Wine; if we must permit Wine, let that be chosen that is weakest, and lest vaporing; and it would be more beneficial if Eye-bright dried were first steeped therein: and that he may make Eyebright Wine for a long time, in the Vintage let him put Eyebright into a vessel filled with new Wine, and let the Patient use that for his ordinary Drink.

Let his sleep be less and shorter than usual, and let him lie upon his back with his face upwards as much as may be: Let him avoid sleeping at noon, because it is very hurtful. Let his Exercise be moderate, and instead of exercise let him use frictions or rubbing of the inferior parts. Let his Belly be alwaies kept loose, and let him avoid disturbance of mind.

The course of Diet being thus ordered, you must begin your Cure from Universal Evacuation And first you must purge with the following Medicine:

Take of *clean Senna half an ounce*: *Fennel seeds one dram*: *the Leaves of Bettony, Eyebright and Vervain, of each half a handful*: *Liquoris three drams*: *Boyl them to three ounces. Dissolve in the straining three drams of Diaphœnicon*; *Syrup of Roses one ounce. Make a Potion and give it in the morning with orderly Government.*

After this first Purge, let the Physitian consider seriously with himself, whether he may bleed or not. For it is disallowed in this case by almost all Practitioners, because it is a Chronical Disease of long continuance, coming of a cold distemper and of a flegmy humor. Hence they fear least by blood-letting, the Brain should be made more cold, and so beget more flegm, and least the conjunct cause of the Disease should be more incressated or thickened, and so become more difficult to be discussed and dissipated. But although their Opinion may take place as to old men, and such as are of a Phlegmatick Constitution, yet it is not to be admitted to them that are yong, or of a hot Constitution, especially if there be manifest signs that blood doth predominate; for then there is no doubt but seasonable blood-letting may much profit. Nay, where the aforesaid signs of blood do appear, it is profitable in the judgment of *Paulus* and *Ætius* after the Vein in the Arm is opened, to open the particular Veins of the Head, and those which are neerest the Eyes, namely, the Frontal and Temple Veins, and those which are in the corners of the Eyes neer the root of the Nose. But you may better apply Horse-leeches to the Forehead, as also behind the Ears. Some Practitioners do relate, that some by a wound in the Forehead have been cured of blindness. In which it is most probable that the cause of their blindness was the compression of the optick Nerves by the Veins and Arteries adjoyning, and swelling with too much blood, which the Wounds aforesaid emptied forth. Whence *Spigelius* (as *Plempius* reports in his Book of the Eyes) was wont in *Gutta serena* with good success to open the middle Vein in the Forehead, and let it bleed while it stop of it self.

But if the suppression of the terms went before this Disease, you must draw blood from the lower veins, or apply Leeches to the Hemorrhoids: if the Patient had formerly a flux thereof, which then is stopped, or if he have a very hot Liver, or be of a melancholly temper.

Afterwards the whole body is to be more exactly purged by this following Apozeme.

Take of *Fennel Roots, and Sarsaparilla, and Flower-de-luce-roots, and Elicampane roots, of each one ounce*: *the Leaves of Bettony, Marjoram, Balm, Eyebright, Fennel, Vervain and Celendine the great, of each one handful*: *Liquoris sliced, and Raisons of the Sun stoned, of each one ounce*: *Annis-seed, and Fennel-seed of each three drams*: *clensed Senna two ounces*: *Gummy Turbith and Agerick newly made into Troches, of each two drams*: *Ginger and Cloves of each one scruple*: *flowers of Stœchas, Rosemary, and Lavender, of each one small handful*: *Boyl them in five quarters*; *that is a pint and a quarter of water*; *dissolve in the straigning four ounces of white sugar*: *make an Apozeme, clarifie it and perfume it with two drams of the best cinnamon, for four mornings draughts*: *After the Apozeme is done, let him take these Pills.*

Take of *the mass of Pill, Lucis major, and Cochia the less, of each half a dram*: *malax them with Bettony water, make six guilded Pills thereof, which let him take early in the morning.*

After this general Evacuation the antecedent Cause is to be revelled; and the conjunct Cause is to be derived and discussed. For this Frictions of the extream parts, especially beneath, are to be used every morning.

Cupping-Glasses must be applied to the shoulders and back without scarification; especially to the

the hinder part of the Head with scarification; for they do so powerfully draw the humors from the fore-parts and the principle of the Nerves, that some presently after the application thereof have recovered their sight: At the same time apply a Vesicatory to the hinder part of the neck, and let the Blysters that are raised be kept long open, with Beet or Colewort Leaves often applied.

When the Vesicatory is dried up, apply a Causticke to the hinder part of the head or neck between the second or third Vertebra; or (as it is now most usual) apply two Causticks to the Neck behind upon the fourth and fifth Vertebra; so that the back bone may be untouched between them, and both may be Cured with one Playster.

Instead of Cauteries a Seton applied to the same part is most efficacious; but the tenderness of our Country men hath almost abolished the use thereof.

If the aforesaid Cauteries avail not, you may lay a potential Cautery to the Coronal Suture, which sometimes hath done the work when other Remedies have failed.

When these things are doing, presently after universal Evacuation by seege, you must order a sweating Diet of the Decoction of Guajacum Sassaphras, and the Roots of Saria, according to the method prescribed by us in the Cure of the Cold distemper of the Brain. Observing this; That towards the end of the Sudorifick Decoction, you add those things which peculiarly respect the Eyes; as Vervain, Fennel, Eyebright, and Celondine the greater.

And for the better drying of the Brain; let the Bags prescribed in the Chapter above mentioned be applied to the Temples if you fear not an inflamation.

Also after the Sudorifick Diet it is very convenient to use Sulpherous and Bituminous Baths and washings of the head; because they are very proper for the correcting of a Cold and Moist Distemper, for the consuming of Flegm, and strengthening the brain.

Besides the universal Evacuation of the Body and Head, particular may be ordered; as Medicines that cause spitting; called Apophlegmatisms; by which the Rhewm is brought out of the Brain by the Pallate; which may be made either in the form of a Gargarism or Masticatory; according to the forms prescribed in the Cure of the cold distemper of the brain.

Errhins and Sternutatories or Neesings are condemned by almost all Practitioners in this Disease; because they draw humors to the eyes: but yet if some of the milder and gentler sort be used (after an exact purging of the whole body and head) for some few dayes they may be profitable in regard they may by degrees draw forth and derive the humor which causeth the Disease, and is fastned in the Optick Nerves; nor can they fetch any thing from the profound part of the brain to the fore-parts: Otherwise in every derivation which is an evacuation by the part affected, or that which is neer unto it; we should alwayes fear lest there should be an attraction to the part affected, which is easily hindered by universal Evacuations which ought to precede; and those Errhins may be made of the juyce of Beets and Marjoram with white Wine in which Manna hath been dissolved.

But a stronger and yet safe Errhine may be made of the powder of Tobacco corrected with Cephalicks, and Oxydorcicks; or Medicines that help the sight; for by that the Rhewm is drawn forth rather by the Palate than the Nostrils; and the brain is so fortified, that it will not so easily receive the defluxion of humors from other parts. The Composition whereof is as followeth.

Take of *dryed Tobacco one ounce: the leaves of Sage, Marjoram, Bettony, Eyebright, the Flowers of Clove-gilli-flowers, and Red Roses, of each one dram: make a powder to be snuffed into the Nostrils for some few dayes.*

Neither is it sufficient once to clense the Body of Excrementitious Humors with universal Purging; but you must keep it in that condition all the time of the Cure; therefore with Purges intermixed, the Excrements which daily encrease must be brought forth; which may be done with usual Pills made after this manner;

Take of *the best Aloes half an ounce: clean Senna, Turbith, Hermodactil, and Agarick newly trochiscated of each two drams: Diagridium, one dram: Mace, Cloves, and Eastern-Saffron, of each seven grains: sprinkle them with the juyces of Marjoram and the greater Celondine: then dry them again in the shade. And with the Oxymel of Squills make a mass of Pills of which let him take half a dram or two scruples twice or thrice in a month.*

While these things are used, you must continually labor to strengthen the brain and the eyes: and the Patient must take diversity of Medicines, lest by taking the same a long time, it prove Nauseous unto him; and lest Nature be too much enured to a Medicine, and so it loose its Operation. Old Physitians say, Treacle is reputed to be of excellent vertue to this purpose, which may be taken by a dram every night with Fennel, Eyebright, or Celondine water twice or thrice in a week. Nutmeg eaten every morning fasting, is much commended if it be long chewed that the vapor may be carried to the Eyes; if you fear that the swallowing down thereof should offend by reason of the heat: it may be spit forth after it is chewed. Candid Myrabolans taken in the morning are thought to cleer the sight exceedingly.

The usual Opiate is thus made:

Take of *Conserve of Bettony, and Rosemary flowers, of each two ounces: Candied Myrobalans two: old Treacle two drams: the Leaves of Eyebright poudered, three drams: Fennel seed two drams: Nutmeg, Cinnamon, and Cloves, of each one scruple: With the Syrup of the Juyce of Fennel, Rue, and Celondine made up with Honey, make an Opiate.*

Let him take thereof the bigness of a Chesnut, drinking after it a little Wine mixed with Fennel Water.

Nor must you omit external Medicines which strengthen, warm, and dry the Head; of which sort is the Cephalick Pouder for the Hair, a Cap and Fumigation, mentioned by us in the Cure of the cold distemper of the Brain.

Finally, You may apply Topical Medicines to the Eyes to strengthen them: these are usual in Authors; but they are of little force which cannot reach to the optick Nerves; but if any desire to try some of them, they may find enough of them in my Treatise of the Cure of a Suffusion.

In a desperate case when all other Medicines have been used in vain, a Vesicatory applied over the whol Head (being shaven) in form of a Cap, hath many times been very successful: if it be twice or thrice used after the drying up of the former Blisters, it is more advantagious.

CHAP. II.

Of the Disease of the Vitrous, or Glassy Humor.

THe Vitrous Humor is next under the Crystalline, and therefore it is made by Nature transparent, that the Species carried to the optick Nerve may be pure and clean. If therefore the cleerness of that humor be hindered by the mixture of another, and so made dusky: according to the degree of that duskiness or foulness, the sight is either diminished or abolished.

Moreover, This humor may be out of order in respect of its scituation; namely, when any part of it by a blow or contusion shall be brought before the Crystalline; for then the sight will be darkened, in regard the vitrous Humor is more thick than the watery, and therefore the species of the objects cannot be carried pure and cleer unto the Crystalline.

The first affect, namely the Mixion of a Humor with it, cannot be perceived by any signs, but only it is judged probable by reason, for the vitrous Humor cannot be seen, or its condition known; and therefore Practitioners are constrained to confound it, and to make it one with *Gutta serena*, because no fault appears in the Eye, and this they do without offence to the Patient, in regard any humors that are mixed with the vitrous, are to be discussed with the same Remedies that a *Gutta serena* is cured.

But you may know that this vitrous humor is disordered in respect of its Scituation, when it appeareth white under the *Pupilla*, yet it is not easily distinguished from Suffusion, except the antecedent and first cause be diligently observed. For a Suffusion is caused by a simple defluxion of an humor; but this transposition or displacing of the vitrous humor useth to come of a Wound or Contusion.

This last Disease is incurable, for the vitrous humor being displaced can by no art be reduced to its former condition. But this by Nature hath sometimes been done, and therefore the whol business is to be committed unto her.

CHAP. III.

Of the Diseases in the Crystalline Humor.

THe Crystalline Humor is the chief instrument of Sight, and therefore ought to be kept more pure and perspicuous than the rest, that that Sence may more freely be exercised. And if it be soiled in the least measure, the sence of Seeing is much hindered.

The chief Disease whereby the purity thereof is infected, is called *Glaucoma* (or the changing of the Crystalline Humor into a fiery redness) and this happens when the Crystalline Humor is made thick by dryness, as in old people, from some drying and condensing cause it is often seen.

This Disease is known, by a plain appearance of a thick white about the *Pupilla*, and when all objects are apprehended by the Patient as through a cloud or smoak. But it is hard to distinguish this Disease from a Suffusion which representeth such a whiteness about the *Pupilla*: hence it is that many Authors do not distinguish between a *Glaucoma* and a Suffusion. But they which diligently observe may distinguish them thus: In a Suffusion there is a white in the very Pupilla, and very neer the Membrane called *Cornea*; but in a *Glaucoma* it lieth deeper.

This

This Diſeaſe is incurable; eſpecially in old folk in whom the drineſs of the part cannot be amended; but if it be not manifeſt that the fault is in the Cryſtalline, and there is a ſuſpition of a ſuffuſion; you may uſe the remedies preſcribed for it.

Moreover, the Cryſtalline may be out of place, namely when the broader part of it which is flat like a Fetch or Lentil is not directly againſt the hole of the *Pupilla*, but either is too high or too low, and then objects appear double when one Eye only ſuffereth; becauſe the parralel or ſtreight line is loſt which ought to be one and the ſame in both Eyes, that whatſoever thing is ſeen by both Eyes may appear but one and the ſame. And if they be not in that order, things are ſeen double; which you may prove by depreſſing or lifting up one of your Eyes with your finger: for then the paralel is loſt, and things appear double: But this Depravation of ſight by which Objects appear double, comes not only of the Cauſe now mentioned, but alſo from vapors, or water which hurt the Cryſtalline; by which the viſive Spirits are divided, whence it comes to paſs that the ſpecies of the ſame thing is received into two places, which Drunkards uſually perceive when they ſee double.

Secondly, The ſcituation of the Cryſtalline is altered, when it declineth backward or cometh forward, if it comes forward to the Pupilla, then things neer at hand are not ſo rightly perceived as thoſe which are more remote, as in old men often. But if it decline backward towards the Optick Nerve, things neer are truly ſeen, but not afar off, and then is the Diſeaſe called *Myopia*, which was mentioned in the Preface; where we ſhewed, That theſe Diſeaſes are only Cured by Spectacles.

Thirdly, The Cryſtalline is out of its place when it tendeth either to the right or left ſide, which is called *Strabiſmus*, or Squinting; when the *Pupilla* is not directly but oblique upon the Object, and appeareth not in the middle of the Eye, but in one ſide: ſo that there appeareth more white in one part of the Eye, than in the other.

This Diſeaſe comes not only from the diſplacing of the Cryſtalline, but alſo from the Evil Diſpoſition of the Muſcles which move the Eyes: which is either natural, or elſe proceeds from a Palſey or Convulſion of the ſaid Muſcles.

Of what Cauſe ſoever it cometh, if it be connatural, it is incurable: but, if it come from Palſey or Convulſion of the aforeſaid Muſcles, you may find out a way of Cure, in my Treatiſe of head Diſeaſes.

Finally, Other Depravarions of ſight may come from the inverſion of the Cryſtalline be it greater or leſs; as when ſtreight things appear crooked, or when the Objects ſeem to be foulded: which happened to a certain Phyſitian (as *Sennertus* reports) who going up a Ladder to take a Book from a ſhelf, and turning his Eyes violently upwards, ſaw al things afterwards turned upwards as though men walked upon their Heads, which came by the attraction and diſplacing of the Cryſtalline. For a quarter of a yeer after when again he turned up his Eyes violently, his natural ſight returned, and al things appeared in right order.

Hence it appears that by a violent motion of the Eye that the Cryſtalline may be diſplaced, and again by the ſame motion be ſet right. I ſuppoſe that the diſplacing of the Cryſtalline was thus, It was ſo inverted that the fore-part of it (which is more depreſſed than the other) was not right againſt the *Pupilla*; but rather its ſide which being more round and convex might repreſent the ſpecies of the Objects inverted, as we may obſerve in round Glaſſes, which diſcover the Object inverted; and this is true from the principles of the Optick art: for in a Medium that is Convex and thick, the ſpecies are ſo broken, and as it were croſs-cut, That they which come from the upper part of the Object, do repreſent the lower part; and ſo contrarily, but if the inverſion of the Cryſtalline be leſs, ſo as both the depreſſed part of the Cryſtalline and alſo the Convex part thereof, be right againſt the *Pupilla*, the Objects may ſeem crooked. Although that Depravation of ſight whereby Objects ſeem crooked, may come by other means: namely when any part of the Cryſtalline is mixed with the watery humor then by reaſon of inequality of the Cryſtalline in regard of thickneſs, the refractions are divers, which are the Cauſe of Depravation of ſight whereby things appear crooked. This may be demonſtrated by a clear Example: A ſtaffe put half into the water, appears crooked for this Cauſe, namely, The ſpecies of that part in the water, when it is carried out of the water into the air, from a thicker to a thinner Medium, is broken by the perpendicular; but that part which is in the air is not broken, becauſe it doth not paſs through divers Mediums as that which is in the water: Hence it comes that the ſtick ſeems crooked. After the ſame manner the ſpecies of the object which is carried into the thicker part of the Cryſtalline is more broken, than that which is carried to the thinner, which is in its natural ſtate, and not mixed underneath with the watery humor; and ſo by reaſon of the divers refractions the objects appear crooked.

But ſince Medicines are to no purpoſe, we ſhal preſcribe none for theſe Diſeaſes.

CHAP. IV.

Of the Diseases of the Watery Humor, and especially of a Suffusion.

THe Watery Humor is out of its Natural Condition, when it is distempered in quantity or quality. When the Distemper is in quantity; it is enlarged or diminished, and makes the *Pupilla* be dilated or contracted, which Diseases shall be mentioned in their places. When the distemper is in quality, it becomes thicker, and that comes from another Humor mixed with it, and that is called Suffusion, which we here speak of. For although *Galen* 1. *de Symp. caus. cap.* 2. sheweth that a Suffusion may come from the condensation of the watery humor without the access of an excrementitious Humor: yet because it happens seldom, and is known rather by imagination than art, and is altogether incurable: omitting that, we shall speak of that Suffusion only which cometh from the afflux of another excrement or humor. This is called in Greek ὑπόχυσις, in Latin *Suffusio*, by the Arabians, Water, vulgarly a *Cataract*. Some Authors would distinguish these names, and make them signifie divers sorts of this Disease: They call it in the beginning (when the sight is only a little darkened) a Suffusion; but when it is grown older, and something gathered into the Pupil appears like water, then they call it only *Aqua*, Water: but when the matter is grown thick in the Pupilla, and the sight almost gone, then they call it a Cataract. A Suffusion comes from a serous Watery Humor spread in the space between the Cornea and the Crystalline: and since a Watery Humor is contained in that space, it may well be reckoned among the Diseases of the Watery Humor.

This is the Cause of a true Suffusion: There is another Bastard Suffusion which comes from vapors sent from the Stomach and other parts into the Eyes. *Galen* 4. *de loc. aff. cap.* 2. taught that vapors may be sent from the Head to the Eyes, and make a bastard Suffusion; but although Authors speak of two sorts of Suffusions, yet they are for the most part united, and a spurious or false pleurisie is complicated or joyned with a true one; because vapors sent from the lower parts to the Brain, are easily carried to those parts of the Head which are weakened with any Disease, and this appears in that all troubled with Suffusions are less troubled, and see better in the morning than at noon or night, because after dinner or supper many vapors are sent up from the Stomach to the Eyes which disturb the sight. And Experience teacheth, That men so diseased have their sight more dull and dark presently after meat, than a few hours after. Moreover, all that have a Suffusion relate that they see in the Air little bodies, as Gnats, Flyes, Hairs, Cobwebs, and the like; which could not be but by the gross vapors which are sent to the Eye, and there move: for although Authors suppose that these representations depend upon some thick Humors contained in the Eye, which make a Suffusion: yet this is not credible, Because then it should alwaies move in the Eye, to represent those little Bodies which fly in the ayr, which is contrary to reason. But rather without question, the vapors are in perpetual motion, and so can represent those flying fancies.

A Watery Humor is the chief and most ordinary cause of a Suffusion, yet other Humors at least in a smal quantity may be mixed therewith: and if Choller be mixed, then it is citrine or yellowish; if Melancholly, then it is a black Suffusion.

And those Humors use to flow to the Eyes when they are weak, either Naturally, or by Accident.

From a Natural debility comes a thrusting forth of the Eyes, for they who have such Eyes, are very subject to a Suffusion; for such Eyes use to be great, and therefore the vertue spread abroad is less in them: as also by reason of their largeness they do more easily receive humors and vapors. External causes make an accidental or adventitious debility, as a stroak, contusion, baths, a Southern and rainy habitation or season, heat of the Sun, smoak, continual reading, especially by candle light, and the like: All which may also cause a flux of humors to the Eyes.

Now the Humors flow from the Brain to the Eyes by the Veins, by the Tunicle called *Uvea*, and by the Optick Nerve. The Veins by which they flow are divers: either those which come from the *Pericranium* to the *Conjunctiva*, thence to the *Cornea* and *Uvea*: or those which come from the *Meninges*, from which some branches come to the Membranes of the Eye, from which Membranes, especially from the *Uvea*, the excrementitious humors may easily fall into the watery humor being so neer.

Finally, Humors may easily be carried by the Optick from the Brain; by the *Tunica Retiformis* and *Aranea*, to the Crystalline; and then the matter of the Suffusion sticks upon the superficies of the Crystalline. Although a Suffusion for the most part comes by a defluxion, yet sometimes

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it may come by congestion or gathering, when that nourishment of the Eye is not well changed, and the expulsive Faculty is so weak that it cannot expel sufficiently the remaining excrements, so that they are by degrees gathered together about the *Pupilla*, and so make a Suffusion, in which case other humors are ordinarily disturbed, and difficult diseases are produced.

The Differences of a Suffusion are taken from the thickness and quantity of the humor causing it, and from the place in which the humor resideth.

In regard of thickness more or less, the sight is more or less offended, for if the humor be thin and serous, of which the Suffusion is made, which is cured by pricking, as *Galen* taught 14. *Meth. cap. ult.* The sight is little worse, and it is called a Suffusion only begun, if it be somwhat thicker the sight is darker; if very thick blindness followeth.

In respect of the quantity and the place, Either the humor possesseth the whol Eye, and the sight is equally hindered which way soever it be directed; or it possesseth one part of the Pupil more than another, and so the objects are not seen wholly at one direct view, nor can many objects be seen at one time: but if the humor be very little, and possess the middle of the Pupilla, the objects appear with holes through them. But if the matter be divided into divers parts, possessing divers parts of the Pupilla, the forms of Gnats shall seem to be before the eyes: All these differences are exactly distinguished by *Galen*, 1. *de symp. causis*, *c.* 2.

Moreover, In respect of the place or Scituation of the matter, other differences may be made, as sometimes the matter is in the very hole or cavity of the *Uvea* about the *Cornea*; sometimes about the *Uvea*, and between that and the watery humor; sometimes it is mixed with the Watery Humor; and finally, sometimes it is between the Crystalline and Watery Humor..

Some Differences may be taken from the figure or shape of the matter, which *Galen* relates 1. *de sympt. causis cap.* 2. and 4. *de loc. affect. cap.* 2. for as the figure of the humor adjacent to the Pupilla is various, so divers objects are present thereunto, as Gnats, Hairs, Cobwebs, Circles about Candles, and other things.

The knowledg of this Disease, is first in distinguishing a true from a bastard Suffusion, and then in the discovery of the differences of true and right Suffusions.

A true Suffusion doth for the most part affect only one Eye; but if both be affected, they are not at one time, or alike affected, as in a spurious Suffusion.

Secondly, In a true Suffusion, some dark matter appeareth in the Pupilla, which doth not in a Spurious or Bastard Suffusion. But this is not alwaies a true sign; for if the Suffusion cometh of a thin and serous humor, because it is no thicker than the Watery humor, there appeareth no change in the Eye, by which Physitians are sometimes deceived, not knowing that kind of Suffusion, take it for *Gutta serena*, perceiving no change in the Pupilla: but this kind is easily distinguished from *Gutta serena*. First, in *Gutta serena* the sight is quite gone, or much diminished, no hurt appearing in the Eye: On the contrary, In a Suffusion which we cannot see, there is only a smal decay of sight, because the serous humor from whence it proceeds, is thin, and transparent, so that it may be pierced by the species of objects like Glass. Secondly, They differ in this, For the most part in a Suffusion, the Sight is not equally hindered in all parts of the Pupilla; but the objects sometimes are seen better when they are direct before the Eye, sometimes when they are opposite to the corner of the Eye, because the humor is thicker or thinner in one part of the Pupilla than the other.

Thirdly, In a true Suffusion the Symptomes are continual, and have no intermission: in a bastard Suffusion, they are sometimes encreased and remitted, as the vapors are more or less which are sent unto the Brain. So they are fewer when the Stomach is empty, than when it is full, especially presently after meat, for then a greater company of vapors do ascend, which sent to the Eyes, represent to the sight, Flies, Gnats, Cobwebs, and such like smal bodies, not alwaies, but at some times only. Which little bodies represented in the Air, depend upon the Vapors as aforesaid: but in regard the Eyes are weakned by a true Suffusion there is almost a continual sending up of vapors unto them, and therfore there is a continual appearance of these little bodies flying in the Air. Moreover, there is a constant darkness of sight in a true Suffusion, being alwaies after the same manner, as if all the objects were seen through a cloud or thick glass, which is the proper sign of this Disease: but in a bastard Suffusion, there is sometimes a greater, sometimes a less, and sometimes almost no dimness at al of the Sight, even as the vapors are many, or few, or none that are sent to the Eyes.

Lastly, A true Suffusion grows in a short time, and is confirmed for the most part in six Months, and sometimes it encreaseth in a few daies: and *Fernelius* saith, 5. *Pathol. cap.* 5. that a Suffusion was perfect in one day, which we also have often seen: but a bastard Suffusion continueth many yeers without encrease.

The Differences among true Suffusions are these:

In a Suffusion beginning certain smal Bodies, as Hairs, Gnats, Flyes, pieces of Wool and Cobwebs, fly before the Eyes.

But when it is far gone, the Air appears cloudy, and the objects are seen thicker, as through a glass;

glass; the colour of the Pupilla is changed, and it appears either troubled or cloudy, or like filthy Glass, or of a sky colour when a suffusion is perfect, the sight totally perisheth: the Pupilla is either white, or of some other colour is mixed with white.

Some signes are taken from the Colour: for when it is like a Pearl in colour, it signifies that the flegm is still fluid and transparent: when it is white as Chalk, then it signifies a thick and compacted matter: when yellow, then flegm and choller are mixed: when black, it shews Melancholly.

The Place in which the Suffusion grows, is thus known; For if the matter be placed between the Uuea and Cornea, the Pupil appeareth more dark, because the matter is neerer to the beholder: Moreover the Pupilla is dilated by the Humor contained therein; and when the Disease is confirmed, white or red veins, or swellings are perceived to be about the Iris, or circle of the Eye; or certain white spots appear about the Pupilla.

If the Matter be contained between the Crystalline and the Uuea, contrary symptoms wil appear: as also the Pupilla wil be contracted if the matter lie deep, and enlarged if the matter lie higher.

The Prognostick of this Disease, is to be diversly made, according to divers seasons: For when a Suffusion is only begun, when the Patient can perceive an object as through a cloud, it is curable as *Galen* saith, 14. Meth. Cap. ult. and *Celsus* lib. 6. cap. 6. which Opinion wants a restriction: Namely, if the Patient be yong, but in old it is incurable: and if the eyes be not naturally of a weak constitution. We also have seen some that have been cured in fifteen dayes space, of a Suffusion newly begun; who have been above fifty years of age, only by universal Purging, sweating Diet, and a Vesicatory, without any other application of Topicks.

This Cure is better wrought in a warm air and in summer time, because the Pores are then open, the matter of the Disease is more moveable and obedient; so that oftentimes it dischargeth it self by seege; which, is very much to the Cure of this Disease: as *Hippocrates* sheweth, Aph. 16. Sect. 6. in these words, *It is a good sign, when men with sore Eyes, have a loose belly.*

If a Suffusion come from an acute Feaver, a Peripneumonia, a Phrenzy, or from a violent pain of the Head, it is hard to be Cured.

A Cataract or Suffusion confirmed when the matter is grown thick, cannot be discussed with Medicines, but must be couched with a Needle.

This Operation is not safe; and often hath ill success: For either the Tunicle Uuea is torn, or by the pain and inflamation, a new flux of Humors is brought to the Eye, which hath been long before weak: and many other inconveniences by which the sight is for ever lost. But since this Operation hath been sometime successful, it may be tryed by those who have no other hopes of Cure; For it is better, as *Celsus* saith, to try a Doubtful Medicine, or Remedy, than None at all.

In a confirmed Cataract, if when the other Eye is shut the Pupilla appeareth larger in the Eye affected, there is hope of Cure by Couching; but if it be no larger, it is uncurable; as *Galen* teacheth, 1. *de symp. caus. cap.* 2. because the optick Nerve is obstructed, and the spirits cannot come to the Pupilla, though it be open.

But if the Patient perceive no light when the Pupilla is enlarged by the shutting of the other Eye, he cannot be recovered by the Needle, because the visive spirit is troubled and obscure, and therefore unfit for sight.

A black Cataract, free from al brightness, can neither be Cured by Physick, nor Chirurgery; because the Visive Spirits are destroyed; but a cleer Cataract that hath some splendor, is Curable.

These also are uncurable for the most part, a green, dark, very yellow, and hard Cataract; and that which moveth and is colored like quicksilver.

A Cataract which representeth objects ful of holes, is not to be tampered with: For since the matter is in the Center of the Pupilla, it is to be feared, lest when the Needle is thrust in, the whol Pupilla be filled with the matter, and so the sight be utterly lost.

The Operation of the Needle, is more successful, in a ful Eye; and that which keeps its natural greatness: But if the Eye be smal and decayed, it is less successful.

In Old men, this Operation is not to be tryed; nor in Children, in them the Disease is incurable; in these the Humor is too soft being not ripe; there is most hope of success in yong persons.

If this Operation be, when some part of the Suffusion floweth down (if the eye be compressed) and appeareth more large, and after returneth to its former station and figure, it is not successful; because the Cataract is not yet ripe, but thin and crude: But if by a compressing with the finger there is no change of the shape and figure of it; it is then ripe, and may be couched with a Needle. But we must take notice, That the ripeness or thickness of the Cataract ought to be moderate and not too much compacted, that it may be easily couched: for it ought to be like a thin skin which may be rowled about the Needle and so couched down; for if it be too thick and solid, it cannot be couched, which

which you may perceive when it is like Chalk or Hail. Contrarily that which is fit for couching useth to be Sky-colored, and Sea-green, of the color of Iron or Lead not black.

The Cure of a Cataract must be directed not only to the Conjunct, but to the Antecedent cause. And therefore you must purge the whol Body, and especially the Brain very exactly. After you must discuss that humor which obstructeth the Pupilla, and some way soften it.

Which intentions, when they are almost the same which were propounded in the Cure of *Gutta serena*, we may use the same Remedies for Diet, evacuation or purging of the whol Body, for revulsion of the humor offending, and for the strengthening of the the Head and the Eyes, so we shall not in vain repeat them.

Having therefore first used all that Method which was laid down for the Cure of *Gutta serena*, we will declare unto you those Medicines, which belong properly to the taking away of the matter about the Pupilla. And though Topical Medicines are counted little worth according to *Galens* Opinion, 2. κατὰ τόπους, who saith that they promise more than they can perform: yet their Lawful use is not to be rejected: and Experience hath taught, by very good Authors confirmed, that Cataracts in their beginning, after universal Medicines used, have been cured with Topicks, that is, Medicines applied to the Eye.

First therefore begin with mild dissolvers, and such as dry not overmuch lest the matter grow hard, and be made unfit to be dissolved: then use mollifiers with your dissolvers, that induration may be hindered, and it may more easily be dissolved. For this purpose the following Fomentation may be first used.

Take of *the Leaves of Rue, Fennel, Eyebright, the greater Celondine, of each one handful: Fœnugreek seeds one ounce: Chamomel and Melilot flowers, of each one pugil: Boyl them in three parts of spring Water, and one part of white Wine added towards the end of the Decoction. Foment the Eyes with a soft sponge dipt in the strained Liquor, morning and evening.*

Of the same Decoction you may make a Fumigation, covering the head that it may be received into the Eyes.

In the beginning of the Disease, while the defluxion is new, and that revelling Medicines are used, it is good to wash the Eyes with only red Wine, which by its astriction hinders the defluxion, and by its spirits discusseth and dissolveth it.

In the progress of the Disease, a Fomentation of white Wine, in which *Crocus Metallorum* hath been infused, is most profitable.

It is no less profitable to let a child eat sweet Fennel Seeds in a morning, and afterwards breath into the Eyes.

As also to let him lick them, or to let a Dog lick them.

Also Bread hot from the Oven, in which is sweet Fennel seed cut in the middle, may be so placed to the Eyes that they may behold it when they are wet with the vapor.

These Medicines are to be used in the morning.

At night you may apply this Cataplasm:

Take of *Fenugreek seed beaten one ounce: Aloes half an ounce: Saffron one dram: Make them into fine pouder, put it into white Wine wherein* Crocus Metallorum *hath been infused, and make a Cataplasm to be applied to the Eyes at night.*

Many commend Pidgeons blood, put hot into the Eyes, for with the Natural heat of that Creature the part will be much strengthened, and the excrementitious matter dissolved: but because the heat will quickly depart from the blood, it is better to take a yong callow Pidgeon, and slit it in the back, and apply it to the Eye.

With these Medicines you may discuss the matter if it be possible.

Topical Medicines called *Collyria*, which are dropped into the Eyes, are of little force, and those are they which *Galen* said did promise more than they perform; for all their vertue is spent in the *Cornea*; neither can they reach to the internal parts, except they be made very sharp, by which, pain would be caused, and a greater defluxion: hence many that have used them immoderately, have from a light infirmity become stark blind. But because many of those *Collyriaes* are found in Authors which have good report by them, lest we should seem defective, we will shew some of the choyceſt, that they who please may try them.

Take of *the best Honey two pints: Fennel Roots, and the Roots of long and round Birthwort, of each one pound: the leaves of Rue, Eyebright, Celondine the greater, and the tops of Fennel, of each six handfuls: Centaury the less three handfuls: Roses four pugils: the Urine of a Boy two pints. Mix them all in a glass Vessel and distill them in* Balneo Mariæ. *Drop this Water often into the Eyes.*

Or you may make Bread with the Bran in it, with the Pouder of Rue, Celondine, Eyebright, Bettony, and Fennel with a little Honey, which as soon as it is drawn and cut in pieces, must be put between two Pewter or Silver Dishes; from whence will come a Water, which *Zechius* affirmeth, dropped

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into the Eyes, doth wonders. Also this following is highly commended.

Take of *white Violet Leaves, one handful: Radish seed, one dram: Amoniacum, half a dram: mix them, and ponder them; then steep them twenty four hours in one pint of Fennel water: then let them boyl a little space: add to the straining one ounce of the clarified juyce of Fennel: the Balsom of Peru, two drams: make a Collyrium: which* Zechius *saith, Drop into the Eyes morning and evening, after the Body is sufficiently Purged, doth so cleanse the Eyes, that it takes away a Cataract wonderfully without Couching.*

Hollerius Describes a Water, that he saith, Cured one that was Nine yeers blind: Which is this.

Take of *the juyce of Smallage, Vervain, Germander, Burnet, Avens, Sage, Celondine, Rue, Knot-grass, Chickweed, the ponder of Cloves, of each one ounce: gross Pepper, Nutmeg, Lignum Aloes, of each three drams: steep them all in the Urin of a Boy, and the sixth part of Sack: Let them boyl a little, then strain them, and press them, put it in a Glass close stopt; drop every night some of it into each Eye.*

The juyce of Brooklime only, being often dropt into the eyes, hath somtimes Cured a yong Suffusion, when a Cautery also hath been applied to the Coronal Suture.

The Juyce of Celondine and Calcitrap mixed together, are as good.

Quercetan, in his Dispensatory doth much commend Water in which *Crocus Metallorum* hath been infused, which is thus made.

Take of *the Water of the greater Celondine, six ounces: Crocus Metallorum, one dram: infuse them, and drop three or four drops of this Water warmed into the Eyes for three or four times a day for a long continuance.*

Fonseca saith, That he knew one Cured by this Water, who was very dim sighted many months: This is the excellency of it, which few other Medicines have; It cleanseth very powerfully without any sharpness.

The same *Fonseca* sayes the Water following is admirable.

Take *many Swallows, beat them with their feathers in a Morter: put to every pound of them four ounces of bread crums: of white wine, four pints: infuse them six dayes, and distil them in Balneo till they are dry: then set that Water in a Glass in the Sun for twenty dayes, and drop it into the eyes morning and evening.*

There is a Water made of Rosemary flowers, which discusseth Films in the Eyes after this manner.

Take of *Rosemary-flowers as many as are sufficient to fill a Glass which must be well stopt, and set it in the Wall against the South Sun, thence will an Oyl come, which with a feather anoint the Eyes with.*

Some Authors commend the Galls of Beasts because they cleanse and discuss strongly, but they cause pain with their sharpness, and therefore are seldom used.

Forrestus, Obs. 35. Lib. 11. commends a certain Fish in his Country, out of whose Liver there comes a moisture, by which he saith Cataracts are presently, as by a miracle, Cured. See in the place cited the use of it. *William Lozellus* saith, That he hath Cured many stark blind, after universal Medicines have been used, with this Water.

Take of *the Liver of a sound Goat, two pound: Calamus Aromaticus, and Honey, of each half an ounce: the juyce of Rue, three drams: the Waters of Celondine, Vervain, Fennel, Eyebright, of each three ounces: Long Pepper, Nutmeg, and Cloves, of each two drams: Saffron, one scruple: Rosemary-flowers bruised, half an handful: Sarcocol, and Aloes, of each three drams: the Gall of Ravenous Birds, Capons, or Partridges, one ounce: let those that are to be sliced be sliced, and that are to be bruised be bruised; then mixed altogether, with two ounces of white Sugar and six drams of Honey of Roses, cast them into an Alembick of Glass, and distil them in Balneo Mariæ with a gentle fire, keep this Water in a Glass close stopt, for precious; which you may drop twice or thrice in a day into the eye affected.*

Zacutus Lusitanus commends the Water following, in these words, *For an old Disease in the Eyes, called* Ophtalmia, *or any other which cometh of overmuch moisture, and gross humors and mists; as in thickness, whiteness, the Haw, and Suffusion; this Water is the best in his Experience; if after sufficient Purging, you drop six drops cold every night three hours after meat into the Eyes, then about two hours after you shall have Water flow out of them in abundance.*

Take of *Aloes, three drams: Rue, Fennel, and Bettony, of each two handfuls: Vervain and Tormentil, of each one handful: Sarcocol, three drams: the froth of Nitre, two drams and a half: Sugar Candy, three ounces: syrup of Roses, four ounces: the Urin of a yong Boy, half a pint: Lizzards dung, three drams: Horehound, three handfuls: Eyebright, one handful and a half: Ginger, Spicknard, long Pepper, Cloves, and Tutty, of each two drams: Balsom, three drams;*

drams: Honey of Roses, two ounces: Verdegreese, one dram: Licium, two scruples: Radish leaves, one handful: powder those which are to be powdered, mix them, and infuse them in the best white wine, in a Still, putting to a fourth part of the best Honey, for ten dayes, and stir them daily, then Distill them, and keep the Water.

The same *Zacutus* commends the Oyntment following, in these words: *For the drying up of moisture flowing from the Head into the Eyes, and for Purging them by the Corners very strongly; this Magistral Oyntment is excellent; being applied after universal Evacuations from the Head and the whol Body; let the upper Eye-brows be anointed lightly therewith morning and evening twice in a day three hours after meat:, one hour after there will flow plentiful Water from the corners of the Eye, especially from the great corner.*

Take of *the Oyl of Roses, three ounces: Rose-water, nine ounces: Camphire, one dram: Tutty, one scruple: Honey, two ounces: the Gall of a Goat, half an ounce: Lupin meal, half a dram: Aloes, Succotrine, one dram: Sugar candy, half a dram: the juyce of Horehound, Fennel, and Rue, of each half an ounce: Mirrh, one scruple: Ammoniacum, half a dram: Sarcocol one dram and a half: Pouder them that may, mix them, and boyl them a little with a gentle fire. and the grease of a Goat or Sheep, and a little wax: make an Oyntment according to art.*

Finally, when al Medicines fail, when the Disease is almost desperate, it were good to try an experience with the Oyntment of Quicksilver; which *Fonseca* saith was his invention, yet seldom used; for in his 19. *Consultat. lib.* 1. he thus saith: *I have thought sometimes that the Unction used for the Cure of the French Pox, hath power to take away Cataracts in their beginning and increase; by the same reason that it takes away the Humors remaining in the Eyes from the French Pox; for by it the Head may be so Purged, that a Cataract may be Cured; and I have determined to make tryal of it.* *Fonseca* had much commended his Judgment if he had seen *Skenkius* his Observation, 309. Lib. 1. which is taken out of the 5. Book of *Alexander Trajanus Petronus*, of the French Pox, *Cap.* 1. *One* (saith he) *before he had the French Pox was blind of one Eye with a Cataract or thick Suffusion; by the Unction with Quick-silver was freed wonderfully from his Pox and Cataract both at once: Neither is it without reason that Cataracts may be dissolved with that Unction, when we see by Experience that very hard Tumors of thick and gross Flegm are powerfully dissolved by the Unction of Quick-silver.*

When a Cataract can be dissolved with no other Medicines, the last Remedy is the Chirurgical Operation, which with a Needle put into the Eye, after the matter of the Cataract being thick, and turned to a little skin, thrusteth it to the lower part of the Eye, so that the sight is restored as if a window were opened. This Operation is successful sometimes; but often not: But when the case is so that no hope remains of other wayes, it is better according to the Opinion of *Celsus*, formerly Commended, to try an uncertain Medicine than none: But it useth not to be tryed by reason of its uncertainty by ordinary Chirurgions; but of Quacksalvers, who go to and fro practising, and therefore the time and manner of the Operation is to be left only to them.

But because those things ought not to be hid from a Physitian, you may find them exactly treated on in divers Practical Authors, when the Cataract is Cured.

Whether it be with dissolving Medicines or manual Operation you must use a course of Physick long after, because there is a great fear of a Relapse: For the Eyes having been much weakned by a long Disease, are very ready to receive any Defluxion again from the brain. Therefore you must follow the usual Purging; you must have Issues continually for diversion; and use often strengtheners of the Eyes, such as are prescribed in *Gutta serena*: to which you may ad a washing of the Eyes, which must be done every day thus:

In the morning first chew sweet Fennel seeds some space of time, then fill the mouth with Wine, and after it is warm in the mouth, wash the Eyes therewith till they begin to smart, which wil cease when you leave washing.

Moreover Spectacles are very good to preserve sight which do make the Objects neither bigger nor less than they naturally are. And it is profitable to refresh the sight with green or sky coloured Spectales.

And Lastly, You must avoid al things which hurt the sight, and use those things which help it, as is declared in the Diet for the Cure of *Gutta serena*.

CHAP. V.

Of the Enlarging, or Dilatation of the Pupilla.

THe Tunicle called *Uvea*, out of *Galen*, 1. *de sympt. caus. cap.* 2. is obnoxious to divers diseases, and especially to Ruption, Distortion, Dilatation, and Constriction.

A Ruption may come both of an external Cause, as stroak or contusion; and of an inward, when much humor distendeth and breaketh the Tunicle: But this being incurable concerneth not us.

A Distortion of the *Uvea* cannot be but in the first constitution of it, because it adhæreth to the *Cornea*. Therefore *Galen* in the place quoted doth only reckon it among the different symptomes of the *Uvea*: and doth not stand to explain it, because it is of no concernment in the practice of Physick. We therefore omitting the first two differences, wil only insist upon the explaining of the Dilatation, and constriction of the Pupilla.

The Dilatation of the Pupilla, which is a hole in the Uvea Tunicle, by which the Species of Objects pass into the Eye, is called in Greek *Mydryasis*; this hurts the sight because too much light goeth into the Eye; hence it is that they which have this disease, see better in a darkish place than in a light. Which appears by Natural and ordinary change in the Pupilla in bright and obscure places; for when the Sight is exercised in a cleer light place, the Pupilla is contracted that the light may go less into the Eye, and not hurt it with too much, by dissipating and dispersing the Spirits; and hence it is that they which go out of a very light place into a dark, see almost nothing at their first entry: because the Pupilla being formerly contracted, doth not in an obscure place receive light enough to make a perfect Sight. After, when they have continued a while in an obscure place, the Pupilla is by degrees dilated, to receive more light, for the cleering of Sight, and then those things which at first entrance were not seen, are cleerly perceived. On the contrary, they which go out of a dark, into a very light place, cannot at first endure the light, and their Eyes are much dazled, because the Pupilla being much dilated before in the dark place for to get light enough into the Eye, when it comes suddenly thus enlarged into a great light, too much light gets into the Eye, and so makes it dazle and disturbs the Sight. Whence it appears, that light necessary to sight ought to pass into the Eye in a moderate quantity, and for the receiving thereof, it is necessary that the Pupilla be moderately large.

Now the Preternatural Dilation of the Pupilla is either in the first original, which is not to be tampered with; or comes of Preternatural causes which are internal or external.

The neareſt and immediate of the internal causes, is the stretching of the *Uvea*, which comes either of driness or repletion.

Driness doth stretch the *Uvea*, and makes the form of the Pupilla larger, as when leather pierced through, when it is dried hath the hole larger: And this dry distemper comes from long watching, Feavers, and other drying causes.

The repletion of the *Uvea* when it distendeth it on every side, makes the Pupilla larger, and this is produced either of vapors, and wind sent into the Eye, or of humors flowing thither, or from the extraordinary encrease of the watery humor of the Eye, or lastly from the swelling of the Tunicle Uvea it self. To these Causes we may ad, the Convulsion of the Uvea, which appeareth chiefly in Epileptical fits; for then all the Nervous and Membranous parts are distended, and so is also the Uvea; and this appears chiefly most manifest in Epilepsick Children, in whom the dilation of the Pupilla is so great, that it is over all the Circle called *Iris*, and therefore the sight is abolished.

The internal Causes are, a stroak, or a fall, or a retention of the Spirits, as in Women in Childbirth, and Trumpeters. A stroak or fall make a defluxion to the Eyes, hence comes extending of the Pupilla: retention of Spirits makes wind and humors, from whence comes distention.

The knowledg of this Disease is not difficult, because it may be seen with your Eyes, especially if the Physitian knew before it became infirm how large naturally the Pupilla was; as also if there be a hinderance of the sight by reason of the over largeness of it.

Moreover, The natural largeness of the Pupilla is known by this, If when you shut one Eye, the Pupilla of the other is larger, which will not be in a Preternatural dilatation, because then the Uvea cannot be further extended.

Lastly, If this dilatation of the Pupilla be only in one Eye, it is Preternatural, and signifieth one Eye only is affected.

As to the Prognostick, The Dilatation of the Pupilla from the original so, is incurable; but that which cometh after is hardly cured, especially that which comes of driness, but that which comes of other

tinuance, is curable; becauſe yong diſeaſes of the Eyes, according to *Galens* Doctrine may be cured, but old may not but with very much difficulty be cured.

The Cure is to be varied according to the variety of the Cauſe; and if it come from drineſs, which can ſcarce come from an internal cauſe, but alſo the whol Body muſt be ſo afflicted; therfore we muſt refreſh the whol body with moiſt Remedies, and nouriſhments, and ſuch as are reſtaurative, ſuch we uſe in Hectick Feavers: but more peculiarly the Body is to be moiſtened with a bath of warm water, and new milk, which alſo muſt be often put into the Eyes, eſpecially womans Milk.

If it comes from a humor which filleth the Eye, becauſe it flowerh from the Head you muſt purge the Head and the whol Body alſo, and then you muſt diſcuſs the humor that is fixed in the Eye. Which when they may be ſufficiently performed by the Remedies propounded for the cure of a Cataract or Suffuſion, we ſhall not in vain repeat them here, but ſend you to the aforeſaid Treatiſe for them, where you ſhall find all things neceſſary for the diſcuſſing and diſſipating humors contained in the Eyes. Yet you may after uſe ſome aſtringents which may make the Pupilla which is too much enlarged more narrow: for this end you may make uſe of this following Collyrium, or Water for the Eyes.

Take of *red Roſes dried two ſcruples*: *Saffron, Spicknard, the Bark of the Frankinſence Tree, of each half a ſcruple*: *Tutty prepared, burnt Ivory, and Acacia, of each one ſcruple*: *Bring them into a Powder, and put them in a thin linnen cloth, and tie it; then hang it in three ounces of Roſe Water, and waſh the Eyes often with the Water, dropping into them, ſqueezing the cloth as often as you uſe the Water.*

If it comes from wind (after univerſal Evacuations) thoſe Medicines are to be uſed which diſcuſs wind in the whol Body, and eſpecially in the Eyes, and ſo they may be fomented with the Decoction of Fennel, Rue, Dill, red Roſes, Myrtles, made in Roſe Water with the fourth part of white Wine.

Finally, If it come with a ſtroak, you muſt alter the manner of Cure, according to the greatneſs of the Contuſion; and if there be an Inflamation, you muſt cure it as an Ophthalmy: But if there be no Inflamation, you ſhall at the firſt apply a Cataplaſm of Bean flower, Plantane Leaves, and red Roſes made up with Roſe Water. After that, you ſhall often drop therein the blood of a Pidgeon, which is a moſt excellent Remedy in all Wounds and Contuſions of the Eyes.

CHAP. VI.

Of the ſtraitneſs, or Contraction of the Pupilla.

THe Pupilla being too ſtraight, hindereth the ſight, as the being of it too large, as was ſhewed in the former Chapter, becauſe a moderate largeneſs of the Pupilla is neceſſary for receiving perfectly the viſible Species. So when the Eye is in its Natural condition, and is in a light place, the Pupilla is contracted leſt it ſhould take in too much light, if ſuddenly it be in a dark room, the things therein contained are little or ſcarcely ſeen at the firſt entrance, by reaſon of the aforeſaid contraction. Afterwards when the Pupil is dilated, al things are ſeen rightly, therefore in a place moderately light, the breadth of the Pupilla ought to be moderate, that it may receive moderate light, not too much, nor too little, for making a perfect ſight. But if the Pupilla be too narrow, it receiveth not light enough, therefore they who are ſo affected, the ſight is diminiſhed, yet they ſee well in a very light place, becauſe at that time light ſufficient will paſs through a narrow hole, if no other Diſeaſe of the Eyes be joyned with it.

Now the narrowneſs of the Pupilla, cometh either from the original, or firſt conſtitution, and then it little hindereth; for if they who are ſo affected ſee leſs in a dark or dusky place than they who have a Pupilla of its moderate natural breath, yet in a clear light place they ſee better. Hence *Galen* ſaid in 1. *de ſymp. cauſ. cap.* 2. that they who are born with ſmal Pupilla's ſee beſt.

Or the ſtraightneſs of the Pupilla comes from preternatural cauſes, namely, overmuch moiſture, drineſs, or defect of the Watery Humor, and want of Spirits.

The Pupil is contracted by humidity, when the Uvea is relaxed, and ſo makes the hole leſs or narrower: For although the dilatation of the Pupilla come of the ſame humidity, yet contrary effects come not of the ſame cauſe, becauſe if the cauſe may be called the ſame, it ought to have the ſame relation to its effects, but humidity is not in the ſame manner when it makes a Dilatation, for it makes that by filling and diſtending the Membrane, but it makes the anguſtia or narrowneſs by relaxing it: it relaxeth when it is united to its ſubſtance.

Concerning dryneſs there is the ſame difficulty, ſince it is mentioned among the cauſes of dilating the Pupilla. But this is the difference: When the Uvea is dryed, and the humors of the Eye remain

main in their due quantity, then it makes a dilatation of the Pupilla, because it looseth not the extention which it formerly had, as was said in the precedent Chapter, concerning Skins extended when dryed, make their holes larger; but if the Tunicle Uvea when it is dryed, wrinckled, falls together, and looseth its former extention, from the defect or diminishing of the humors of the eye, then is the hole of the Pupilla made straighter.

And so the constriction of the Pupilla by driness will be almost the same with that which happeneth from a defect of the watery humor in the eye; although it may come without driness, when by the powring forth of the watery humor the Uvea falls down.

Lastly, The narrowness of the Pupilla comes from the defect of Spirits, or from the fewness of them, when by reason of the obstruction of the optick Nerve or some other cause, the vitive spirit cannot come to the eyes, which when it is filled with spirit keeps its Tunicles extended; but when it wanteth spirits they grow lax and fal together: Hence the constriction of the Pupilla usually cometh. This appeareth in very Old men, in whom the Pupilla is made narrow by reason of the want of spirits.

This Disease is known easily being open to the sense, for if one eye alone suffer, by comparing it with the other you may perceive the straightness of the Pupilla; but if both suffer, by looking upon the eyes of another man who is sound sighted, you find it out.

As to the Prognostick, a straightness in the Pupilla which cometh from the loss of the watery humor in the eye, is incurable, because when that is once lost it cannot be recruited; especially in old folk: in yong people sometimes the watery humor of the eye hath been let forth by a wound, and hath been repaired again: A Constriction of the Pupilla from driness, can scarse, and very hardly be cured: But that which comes from moisture, in the beginning, and being yong, may be easily Cured: but an old one very hardly.

The Cure of this Disease differeth not from the former, for they come both from the same Causes, namely, Driness, or Moisture; which distempers, although they produce contrary effects, after the manner before Explained; yet are they to be Cured by the same Remedies.

CHAP. VII.

Of Albugo, *or the white Spot called Pin and Web, and of other Colours of the Cornea changed.*

THe Natural Constitution of the Cornea Tunicle is destroyed when it looseth its brightness and transparentness; or when its infected with another colour.

It looseth brightness when it is grown thicker; now the Cornea doth grow thick by driness, as in old men, which is incurable; or by gross humors fastened upon it, which happeneth often in an Ophthalmy; when either by too much use of Resolving Medicines the thinner parts of the humor are dissolved, and the thick remain: Or when by an extraordinary use of cold Medicines the humors are thickned: and the Cornea doth not only become thicker in that part unto which the humor is fastened, but it also contracteth a white Colour, which is called Leucoma, or Albugo; sometimes this also comes from a scar after an Ulcer, whereby the Cornea is made thicker in that part, and looseth its transparentness.

The Differences are divers, as they are more or less thick; one doth possess only the superficies of the Cornea: another lies more deep, and pierceth the whol Cornea: another is greater, and possesseth the whol Pupilla, or the greatest part thereof: another is less, and comprehendeth but a little space of the Pupilla, and then it is properly called Macula, or Pin and Web.

The Cornea is altered in Colour when it is blood-shot, which Disease is called Sugillatio, and then al Objects appear red: Or when Choller is got into it, as in those who have the yellow Jaundice; and then the Objects use to appear yellow according to *Galens* Doctrine, which is to be understood of a great effusion of Choller upon the Cornea, for if it be only lightly died therewith, which often happeneth (for the Tunicle Adnata receiveth more Choller than the Cornea) then the Objects wil not seem yellow, but as they naturally are.

These Diseases need their peculiar Diagnosis for the knowledge of them; because they are apparent to the Senses, but especially Albugo, which is thicker and more white; and more hindereth the sight: So also that which is more superficial is more white; but that which is deeper declineth unto black because it is neerer to the Uvea, which being its self black, communicates its Colour unto that.

The Causes which produce these, are easily known by what hath been said; namely, if an Ophthalmy,

thalmy, or Wound, or Ulcer went before.

As to the Prognostick: An Albugo which comes of Flegm, or a thick humor remaining after an Ophthalmy, it is easily Cured, especially if it be not inveterate: but that which cometh after a Wound or Ulcer, and is a scar, is very hardly cured; because in a part which hath exquisite sense, sharp Medicines, such as are proper to wear away a Cicatrize or Scar, cannot be endured.

The Cure of an *Albugo* congealed or gathered in the Cornea from Flegm, is done by Emolients attenuating and discussing Medicines, but by alwayes using universal Medicines first, which may take away the antecedent Cause, and hinder a new defluxion from the eyes, which would be caused by Medicines to the place; especially if they be sharp, or hot, except the matter be first removed.

Therefore first make universal Evacuations, then revulsions, then Derivations, as it is set down in the Cure of *Gutta serena*, and *Cataract*.

Afterwards apply a Fomentation to soften the hard matter (with soft spunges) made of the Decoction of Fœnugreek, Melilot, Celondine, and Fennel.

Or, Let the Vapor of it be taken into the eyes; and to this purpose you may make this that followeth.

Take of *Marsh-mallow Roots one ounce: the Leaves of Mallows, Eyebright, Celondine the great, of each one handful: Linseed and Fœnugreek of each three drams: Melilot flowers one pugil: make a Decoction of these in spring water, and let the steem or vapor of it be taken into the Eyes, morning and evening.*

Afterwards use Discussives, such as are prescribed in the Cure of a Cataract or Suffusion; for they also wil do wel here. And so *Collyria* Eye waters which do attenuate and resolve the Humor fastened in the eye, may be taken from thence, and especially those which are made of Honey and things that quicken the sight. For the Water of Honey distilled used alone, is very good to take away all blemishes in the Eye if you continue the use of it any time.

Sugar Candy is good for the same, Dissolved in the Water of Eyebright, Celondine, or Fennel.

As also it would be very good to let a Child that hath chewed Fennel-Seed to lick the Eye often.

Amatus Lusitanus reports that he Cured thick clouds in the Eye of a Girle of twelve yeers of age after he had given the Decoction of Sarsa twenty dayes, with this Medicine.

Take of *Honey from the Hive two pints: the tops of Fennel, the flowers of Elder and Eyebright, of each two pugils: Sugar Candy four ounces: distil them in Balneo Mariæ; and let the water be dropped into the Eyes.*

The Seed of Clary put into the Eye at bed time, purgeth the Eye from Filth, and so clenseth it, that it conduceth to the Cure of *Albugo*.

The juyce of Fennel doth potently discuss an *Albugo* if newly made, and mixed with a drop of the Ballom of Peru

The same doth an Oyl made of burnt Rags mixed with the spittle of a Child, and laid on with a Feather: It is made by burning of a Linnen Rag, and quenching it betwen two dishes; when it is cold you shal find the Oyl in drops upon the dish.

But *Albugo* coming of a Scar, is cured with Remedies that are good to mollifie, attenuate, and dissolve Scars; but since such are alwaies sharp, you must be more careful in applying, first universal Medicines, and revulsives, lest a flux of humors be brought to the part. Having therfore used them as aforesaid, first it is good to apply emollient Fomentations or Fumigations above prescribed. Then use abstergent & discussing Remedies: First those that are gentle, such as are above mentioned, especially the compound Water of Honey: After you may come to stronger, such as are the Galls of Fishes, of the Uranoscopus, or one-eyed Fish; of the Pastinaca, or fish like the Ray; or of the Pike; as also of other Creatures, as of a Partridg, Cock, Goose, Ox, and others. After the same manner may be used the juyce of great Celondine, of the lesser Centaury, of Brooklime, and the like, which must be mixed with Honey both because Honey hath a clensing and discussing quality, as also because Liquors that are put into the Eye, flow to the corners, and stay not in the Pupilla in which their operation is required; but being thickened with Honey, they cleave wel to the Eye: But if their sharpness cannot be endured, the said Juyces or Galls may be thickened, with that Mucilage or slime of Gum Traganth, or Fleabane, or of Quinces, being drawn with the Water of Fennel, Eye-bright, or other proper to the Eyes.

The form of a Collyrium made of Juyces, is thus:

Take of *the Juyce of Fennel, Celondine, and Brooklime, of each three drams: the Juyce of the lesser Centaury, half an ounce: white Honey one ounce: Mix them like a Liniment. If with the Albugo there be redness of the Eyes, the Collyrium made of Salt, white Wine, and Wheat prescribed*

in

in the Ophthalmia, is very good. Or this,

Take of *Aloes and Agarick, of each one scruple: Pouder them, and tie them in a clout; which steep in the Water of Eyebright or Fennel, and wipe the Eyes therewith morning and evening. Aloes doth clense, strengthen, and stop the defluxion; Agarick doth powerfully clense.*

Sugillatio or blood-shot, or that red color in the Eye which cometh of blood sent thither, if it be yong, is easily cured with Pidgeons blood dropped in: but in the want thereof you may use Womens Milk with a little Frankincence and Saffron. Or you may apply the Yolk of an Egg with Wine; which is commended of *Galen*, 4. *de comp. Med. sec. loc. cap.* 8. But if the disease be stubborn, you must foment the Eye with the Decoction of Fœnugreek, Marsh-mallows, Fennel, Rue, Celondine; or let the fume of the same be received into it. And finally, all Medicines prescribed in the Cure of a Cataract may be very proper for the cure of this. But more especially, when the disease is old, and the redness turneth black, *Galen* commends dried Hyssop tied in a rag, and put into hot water, and applied to the Eye: and Experience teacheth that this Medicine is of such force that the blood is drawn away by it sticking to the clout.

And lastly, The yellow color of the Jaundice, which most appears in the Eyes, when the Jaundice is cured is easily discussed: if you would hasten the Cure, take the fume of Vinegar into the Eyes.

CHAP. VIII.

Of Ophthalmia, *or Inflamation of the Eyes.*

THe Tunicle called *Adnata* is so joyn'd to the *Cornea*, that many diseases are in both; as the Inflamation of the Eyes, though it is proper to the *Adnata*, yet it is often extended to the *Cornea*, and produceth divers Diseases in it, namely, Ulcers, *Hypopyon*, when matter is underneath, *Albugo* or Pin and Web, and others. So also Pustals, and other Tumors, Wounds, and Ulcers are common to both Tunicles. Therefore because all the Diseases of these Tunicles cannot be spoken of severally, we will only speak of the Diseases of the *Adnata* before we speak more of the *Cornea*.

Beginning with an Ophthalmy; We say that it is, as the word in Greek sheweth, only an Inflamation of the Eye, and by all Authors it is used for the inflamation of the Adnata, or Conjunctiva. It is called by the Latines *Lippitudo* or blood-shotness since *Cornelius Celsus*.

This Inflamation, as it is greater or less, hath a three-fold difference. The first is called in Greek *Taraxis*, in Latin *Conturbatio*, which according to *Paulus* cometh from an external cause, namely, the Sun, smoak, dust, oyl, and the like: but it may also come of an internal, namely, by fault of the stomach after drinking of Wine, or other Distempers; and this is a light Inflamation called *Phlogosis*, with a smal pain and redness, yet it sometimes turneth into a true Ophthalmy, and is the original of it.

But a true Ophthalmy comes alwaies from an internal cause, and it is a true inflamation with which tumor, redness, and pain, it is called by *Celsus*, *Lippitudo* or blood-shotness, because there cleaveth a thick excrement, which the Latins call *Lippa*.

The third is called *Chemosis* in Greek; in Latin *Chemosis* also, and it is when an inflamation groweth so high that it is very great with vehement pain, and both the Eyebrows are inverted so, that the Eyes can scarce be covered therewith; and the white of the Eye stands higher, and the red doth cover most part of the Iris or Circle. In Children, and such as have great Eyes, this hath often happened, and it comes from a great repletion, and from flegmy humors.

There is another Difference of the Ophthalmy taken out of *Hippocrates*, *Aph.* 14. *Sect.* 3. by which it is divided unto a moist and a dry Ophthalmy: The moist Ophthalmy is that which is already described, and hath a weeping. But the dry Ophthalmy called by *Hippocrates*, *Xerophthalmia*, which cometh in dry weather, is made of Choller, or burnt or adust Melancholly, and is such as wanteth humidity in part, and therefore there is no weeping. There are other subdivisions from the adjuncts; for if there be an itching joyned with it, it is called *Psorophthalmia*; but if it come with hardness of the Eye-lids, it is called *Sclerophthalmia*.

There is also another Difference of Ophthalmies, taken out of *Galen*, 2. *de diff. febrium, cap.* 11. where he saith That some are Periodical, or such as cometh by fits, to those which have a very hot and moist head, and weak Eyes, fit to receive a defluxion. These after many yeers have a consumption of their Eyes, and lose their sight; hence it is called *Tabida Ophthalmia*, or a consuming Ophthalmy, or an Ophthalmy which ends in a consumption of the Eye.

There is also another difference taken from the immediate cause, which is defluxion or congestion,

on, that is, gathering of humors. It comes for the most part by defluxion; but by congestion only, when there is either a distemper or weakness of the Conjunctiva, by which there is no equality, or *Omotosis* in the part, but many excrements are gathered together, from whence through the weakness of the part cometh an inflamation.

The Conjunct cause of an Odhthalmy is Chollerick, or Watterish, or Melancholick Blood flowing into the Eyes, or gathered into them. The Causes of defluxion are manifold, both external and internal ordinarily known. But the causes of Congestion or Cumulation are all such as distemper or weaken the Eyes; so that an Ophthalmy which at the first came only by defluxion, in time by weakening of the part may spoil its concoction, and so it may be said to be an Ophthalmy partly from defluxion, and partly from Congestion, which is often seen in old Ophthalmies.

But when an Ophthalmy comes only by way of defluxion, it is certain that it comes for the most part from the head, and almost all Authors acknowledg this. Notwithstanding Experience teacheth that many violent Ophthalmies come from the Liver, and the humors that come from thence to the Eyes; insomuch that Cauteries applied to the hinder part of the head, excreate the Disease, which otherwise are good Remedies when the defluxion is from the head, for they draw up the humors: and we have often seen that old Ophthalmies which were accounted incurable, have suddenly gone away of their own accord, by stopping of an issue which hath long been kept open, namely, when the motion of the humors from the inferior to the superior parts hath ceased, which before was caused by the Cautery or Issue in the Neck, by Nature sending part of the humors to the weakened Eyes, not far distant from the Issue.

That defluxion which cometh from the head, either is carried by internal Veins, which are under the Skull, into the Eyes; or by the external Vessels, which is most frequent, namely, by the Veins, and Arteries which come from the Pericranium by the Forehead and Temples, to the Conjunctiva.

An Ophthalmy is easily known, because the blood diffused upon the Conjunctiva may be easily seen, and if redness appear without a tumor coming of an external, it is called *Taraxis*, or Conturbation. But if besides the redness there be swelling and heat with weeping, it is a true Ophthalmy, and at length if it so encrease that it cover the black of the Eye, and the Eyelids be inverted, then is it called *Hemosis*.

Hence we fetch the signs of the Causes: for if it comes from repletion, and of blood alone, not only the Tunicle Adnata, but also the whol face will be red; as also there will be a swelling of the Veins, drouzinesis of the Sences and whol Body, and a manifest swelling.

If it come from Chollerick Blood, there will be sharpness of tears, and not only the corners of the Eyes, but also the very cheeks will be corroded, there will be a pricking and intollerable pain, a little swelling with redness inclined to yellow; and the patient hath formerly used immoderate exercise been inflamed by the Sun, subject to anger, and eating of sharp things, his complexion is Chollerick, or he is young, and the disease cometh in hot weather.

If it come from flegm, there will be a heavy pain, little heat, not much redness, little shooring, no sharp tears, but many, and slimy and glutinatious.

If it come of Melancholly, the Tumor will be smal, the redness will be dusky, few tears, little clamminess, but very thick, a Melancholick constitution, and the like signs of Melancholly.

If the defluxion come from the inner parts of the Head, there will be a pain in the Head internally coming to the Roots of the Eyes. But if the defluxion come into the Eyes by the exterior Vessels, the pain of the Head will be more external, the Veins of the Forehead will be distended, and also there will be perceived a great beating in the Temples.

The Prognostick is either in respect of an Ophthalmy coming, or already begun.

An imminent *Lippitudo* is known by an itching and pricking in the Eyes, with heat also, and the disposition of the Eyes to receive defluxions, doth give advantage to the prognostick of it; wherefore they who have great Eyes are more subject to this disease: Moreover, the season doth much conduce to the breeding of it, as *Hippocrates* teacheth, Aph. 11. Sect. 3. If the Winter be dry and full of South winds, and the Spring rainy, and with South winds, in Summer you shall have sore Eyes very common, especially in women, and men of moist constitutions.

A flux of the Belly coming upon an Ophthalmy is good, according to *Hippocrates*, Aph. 17. Sect. 6. because the superfluity of humors is discharged, and carried downwards.

An old pain in the Eyes is very dangerous, for it signifies the cause to be violent, and it is to be feared lest Imposthume, Suppuration, or Ulcer do follow.

An Ophthalmy beginning in one Eye useth ordinarily to pass to the other.

For the Cure of an Ophthalmy, the external causes must be first removed, as also the antecedent causes are to be evacuated, revelled, and repelled; the conjunct cause is to be derived and discussed, and the part affected strengthened. For the performing of which Indications there are these usual means to be applied.

First, Let his Diet be cooling and moistening, of Meats that breed good nourishment, boyled rather

ther than roasted; of suppings rather than solid things; because the Eyes are moved in chewing: let him avoid sharp things, Salt and Pepper. As also things that Fume, and wil fill the Head with vapors: As also such as quickly turn into Choller, as Milk, Sugar, Honey, and al sweet things; Wine especially is not good; but instead thereof use Barly water, with Liquoris and cooling things.

Sleep is very profitable, because then the Eyes rest from motion which is apt to stir up pain and defluxion; besides pain is asswaged by sleep, and the matter causing the Disease is concocted: Let the Patient sleep with his Head high, and more inclined to that side which is least affected.

Let him avoid al motion of his Body, for rest is so profitable that *Celsus* commands that the first day of Cure they speak not, lest by that motion matter be carried to the head.

The Belly must be kept Solluble, for *Hippocrates* saith it is good for him that hath sore eyes to fal into a looseness.

Let him avoid Passions, especially Anger.

Let the Air be temperate and pure, without Smoak, Dust, and Winds, and somwhat dark; of the light by moving the Spirits causeth defluxion: Let him have a black, green, or sky colored cloth before his eyes; and keep not only his sore but his sound eye shut or covered; for while the sound eye is moved towards the Objects the sore is moved also, whence the pain encreaseth; and this is the reason why men have greater pain when one eye is affected, than when both.

The Diet being thus ordered, let us lay down the Cure of the Disease; and since it comes for the most part of external Causes: first let them be removed lest they nourish it: next make a *Collyrium*, or Eye-water, or Rose and Plantane Water, with the white of an egg, and Womans milk, and let that be instilled into the Eye often in a day; as also let a linnen clout be dipped therein and applied.

At the same time let him sleep as much as he can; for sleep is very profitable to concoct and discuss the matter causing the Disease. If it yeild not to these, you must use the Remedies proper for a true *Ophthalmy*, in this Order.

First open a Vein (having given a Clyster) on the contrary Arm, and do it often, till you have made sufficient Evacuation and Revulsion: For *Avicen* teacheth, That in a true *Ophthalmy* you may let blood till they faint. But *Galen, lib. de curat. per sangu. miss. cap.* 17. tells a story of a Steward which was freed of a great *Ophthalmy* by blood letting: first three pound; and four hours after one pound: And in his 16.*cap.* of the same Book he affirmeth, That *Ophthalmies* are often cured in an hours space only by Phlebotomy: which could not be but by loosing of a great quantity, as they did in those times in that case.

Phlebotomy must be regulated and moderated according to the temper, age, sex, strength, and kind of the Disease; for in a Plethorick body, and when it comes from blood, you must take a greater quantity: but in a Chollerick body, or Melancholly, or Flegmatick, and other Circumstances which prohibit blood-letting, you must take less.

If the whol body be ful of blood, first open the Liver or *Median* vein, after the Head vein; but if you intend to loose but little blood, begin with the Head vein.

But in them who have a stoppage of any ordinary accustomed Evacuation by the Terms or Hemorrhoids, you must open the veins beneath, or apply Leeches to the Hemorrhoid veins.

After you have bled enough, you must labor to make Revulsion by applying of Cupping glasses to the shoulders and the back, both dry and with scarrification.

Frictions also are good for the same; and Ligatures in the lower parts.

To the aforesaid Revulsions you must ad means to derive, which are by the opening of the veins of the Forehead and Temples; to which some ad the opening of the veins in the corners of the Eyes: others apply Horsleeches to the Temples, others behind the Ears; al which derivations are very profitable after sufficient Evacuation.

Galen 13. Meth. Cap. 22. Commended the opening of an Artery in the Temples, when the Disease comes of very hot blood: And though this way of Practice is not used in our times, yet it is very excellent and profitable, without any danger; for in those lesser Arteries the blood is stanched by good Ligature and bondage only; nor is the Plaister mentioned by *Galen* in the same place necessary, which is made of Bole, Frankinsence, Mastick, and the Hair of an Hare, with the white of an Egg: yet for the better security, they who are afraid of the opening of an Artery, may make use of it; you may see what we have said concerning the opening of Arteries in the Cure of the Headach.

Vesicatories also are very profitable in this Disease, both applied to the Neck and behind the Ears.

When you have bled sufficiently you must purge, that the Chollerick Humors, especially such as make the blood hot, may be evacuated: And *Hippocrates* saith it is very requisite, *Aphor.* 17. *Sect.* 6.

Sect.6. For it is good for him that hath an Ophthalmy to fall into a flux. And *Galen*, 13. *Meth. Cap.* 11. saith, *That he hath seen some who began to have sore Eyes to be cured in one day only by a Purge.* But it must be made of gentle ingredients, and such as do allay the heat of the blood, taking heed of al Medicines that have Scammony in them, and they be made thus.

Take of *Tamarinds half an ounce*: *clean Senna three drams*: *Annisseeds half a dram*: *Endive, Succory, and Fumatory, of each half a handful*: *boyl them to four ounces*; *and when it is strained infuse in the liquor of the best Rhubarb and yellow Myrobalans rubbed with the Oyl of sweet Almonds, of each one dram*: *yellow Saunders half a scruple*: *after strain it again, and dissolve of Manna and syrup of Roses of each one ounce. Make a Potion.*

Or in Form of *Bolus*, thus.

Take of *Cassia newly drawn six drams*: *Diacatholicon three drams*: *Pouder of Rhubarb one dram*: *make a* Bolus *with Sugar.*

So many times we prescribe Pills in an Ophthalmy which comes of Flegm, namely, Lucis majoris, of Agarick, and the like: which though they are very good in the state of the Disease, yet it is better to abstain from in the beginning, lest the Humors moved with too violent a Medicine should fal more upon the part.

Nor is one Purge sufficient, but you must repel it a distance, if the Disease be old; first giving good preparatives by Apozemes or Juleps proper for the Humor offending: therefore in the beginning allay the heat of the Humors with cooling Juleps, and such as thicken; or with Emulsions made of the greater Cold Seeds, Lettice and white Poppy seeds, in some cooling Decoction, with a little Rose water.

After universal Revulsions and Evacuations come to Topical Medicines with that part, which from the beginning must be repelling; yet the soundest Practicioners do warn us not to use repelling Medicines to the Eyes at first, because for the most part they stop the Humor and retain it in the Eye, and so increase the grief and inflamation: For *Galen* Comment. Aphor. 31. Sect.6. reproves a certain Oculist which used these kind of Medicines in the beginning of the inflamation; for they may be suspected in the beginning not to stay violent defluxions, but rather to keep them from coming forth: Hence it cometh to pass that when the humors are sharp the Cornea is sometimes ulcerated, but when they are many it is streaked and sometimes broken: But *Avicenna, fen.3. lib.3. tract.1. cap.9.* saith, That it is fit, that if possible, we abstain from *Collyriums* the first three dayes. And a little after, he saith, That we ought not in the beginning to apply strong Astringents and thickners: because they thicken the Tunicles or coats, and hinder resolution and increase pain.

Yet we need be so exact in the time and number of dayes, because the Disease is in some older, and in some yonger: but we may with profit apply Astringents at the beginning to the Forehead and Temples; for by those, the veins by whith the humors flow to the Eyes are stopt, and they driven back.

The Form of this is as followeth.

Take of *Bole-Armonick, sanguis Draconis, Frankinsence, Mastich, of each one dram: red Roses, Balasts, or Pomegranat flowers, & the pouder of Lentils, of each two scruples: mix them with the white of an Egg and Vinegar of Roses, and make a Cataplasm for the Forehead, and Temples.*

Moreover, A Cataplasm made of the Juyce of Nettles and Wheat flower, applied to the Forehead and Temples, is excellent to stay a defluxion by reason the Juyce of Nettles hath a special Vertue for the stopping of al sorts of Bleedings, as it doth the bleeding at the Nose or Mouth.

But if the pain be very great, which useth to encrease the defluxion upon the Eyes, you must apply Anodines or Medicines asswaging pains upon them. Among which new milk, especially if it be that which a sound woman giveth is best, if it be often milked fresh into the Eyes from the breast, and not be used stale, for then it wil grow sowr and be offensive to them: instead thereof you may use fresh Cheese made of Sheeps milk, which you must often change, lest it turn like Butter, and so inflame the Eye.

The white of an Egg wel beaten til it turn to water, is commended of *Galen*, for it asswageth pain, and gently stayes the Flux.

Also an Apple roasted in the Embers doth much asswage the pain of the Eyes.

The Mucilages, or slime of the seeds of Fleabane, Quinces, Fœnugreek, drawn with Rose-water, do take away pain; but they must be renewed every day or they wil grow sowr.

Of these things you may make divers kinds of Medicines. As for Example.

Take of *the pap of a sweet Apple roasted in the embers, an ounce*: *the Mucilage of the seeds of Fleabane and Quinces drawn with Rose Water, of each six drams*: *the white of a new laid Eg beaten into water, and womans Milk, of each one dram*: *Make a Cataplasm and apply it to the Eyes.* Or,

Take of *the pap of a roasted Apple one ounce*: *Crums of white Bread half an ounce*: *one Egg mixed with Breast milk*: *Make of these a Cataplasm.*

Thin slices of Goats Flesh, Veal, or Mutton, often applied to the Eyes, do very much asswage pain.

A Cataplasm may be made more easily with crums of white Bread, and Womans Milk mixed with Rose Water.

If the pain be intollerable, you must fly to Narcotick or stupifying Medicines, which you must use sparingly, and with good advice, because they do thicken the visive Spirits, and make the Humors and Tunicles gross, by which the Sight will become dim.

Among Narcoticks for the Eyes, the white Troches of *Rhasis* are principal; made with Opium thus:

Take of *Rose water two ounces*: *the Water of an Eg well beaten one ounce*: *the white Troches of* Rhasis *with Opium, one dram*: *Make a Collyrium, or Water for the Eyes.*

When the pain is asswaged, you must come to repelling Medicines, which must be gentle and mixed with Anodines continually: for this end make this Collyrium following:

Take of *Plantane and Rose water, of each one ounce and an half*: *the Water of the white of an Egg beaten, one ounce*: *the white Troches of Rhasis with Opium, one dram*: *Make a Collyrium, and drop it often into the Eyes.*

If the pain be very great, you may put to it Womans Milk, and the Mucilages aforesaid.

This following Medicine doth powerfully resist inflamation, and stay the flux.

Take of *the white of an Eg, beat it in a pewter dish with a piece of Allum very well, till it come to the consistence of an Oyntment, which you must spread upon a linnen cloth, and apply it warm to the Eyes*: *After two or three hours take it away, lest by its long continuance having an extraordinary astringent quality from the Allum, it retain the humors in the Eyes.*

Also the Water of Allum distilled in an Alembick, laid to the Eye with a linnen clout, doth allay the inflamation thereof.

The Salt of Lead dissolved in Rose Water, or Wine Vinegar, or mixed with Pomatum, doth powerfully cool the inflamation.

In the encrease of the Disease you must mix digestives with Repelling Medicines, and therfore you must put the Water of Eyebright, Fennel, Celondine, and the Mucilage of Linseeds, *Althæa*, or Marsh-mallows, and Fœnugreek, *Gal.* 13. *Meth.* commends especially the Decoction of Fenugreek, because it digesteth, concocteth, and moderately repelleth: but you must sift the Fenugreek to take out the dust, and after wash it often in warm Water, before you boyl it, or make the Mucilage of it. You may thus make a Collyrium.

Take of *the Mucilage of the seed of Fœnugreek, and Quinces drawn with Rose, and Eyebright Water, of each one ounce and an half*: *the white Troches of* Rhasis *with Opium, one dram*: *Tutty prepared half a dram*: *Make a Collyrium.*

When the Disease is at the height, you may put Sarcocol to it, which is of a more digestive quality; but since it is apt to hurt the Eyes by its over dryness and sharpness, it must first be steeped some few daies in Milk, often changed, and you must prepare but a little at one time, for if it be long kept it wil grow sowr, and hurt the Eyes. You may use it thus:

Take of *the flowers of Chamomel, Melilot, and red Roses, of each one pugil*: *the seeds of Fœnugreek cleansed one dram*: *boyl them in Plantane Water. Dissolve in four ounces of the straining, Sarcocol one dram*: *Tutty prepared, and of the white Troches of* Rhasis *without Opium, of each half a dram*: *Make a Collyrium.*

Authors do commend some Waters to be very powerful.

Quercetan commends the infusion of *Crocus Metallorum* made in Eyebright and Fennel Water, which is strong enough, and is no waies too sharrp for the Eyes as others are.

Crollius and the rest of the Chymicks, do highly commend the Salt of Lead dissolved in Rose Water, to which they put a few grains of Sal Armonick. The manner is thus:

Take of *the Salt of Lead twelve grains*: *Sal Armonick three grains*: *Rose Water three ounces*: *Mix them, and drop some into the Eye morning and evening.*

There is also a Water made of calcined or burnt Lead, or Litharge, or Menium infused in Vinegar, which laid to the Eye with a linnen clout presently cureth their inflamation.

The Water of white Vitriol is most common, being dissolved in Rose or Plantane Water; this mitigateth inflamations, discusseth, and hindereth defluxions. Thus they are proportioned:

Take of *white Vitriol one scruple*: *Rose or Plantane Water four ounces*: *Dissolve the Vitriol in it at the fire*: *Strain the Water and drop it into the Eyes. If it be too sharp, you may qualifie it as you please with more Rose or Plantane Water.*

This following Medicine is not so sharp, and more dissolving.

Take of *Flower-de-luce Roots, and red Roses, of each one scruple*; *Rose and Plantane Water,*

of

of each three ounces: Boyl them to the third part with a gentle fire. Add to the straining white Vitriol poudered eight grains: Make a Collyrium.

Many Oyntments also are used for the Eyes, of which, these three following are the best, and sometimes do wonders. The first is in *Renodæus* his Dispensatory, called *Unguentum Ophthalmium*, made thus:

Take of *Bole-Armenick washed in Rose Water, one ounce: Lapis Calaminaris wash'd in Eyebright Water, and Tutty prepared, of each two drams: Pearl finely poudered half a dram: Camphire half a scruple: Opium five grains: Butter as much as will be sufficient to make an Oyntment according to art, for to be applied to the corners of the Eyes, and the Eye-lids.*

The second is *John Cratoes*, which is set down in his Physical Counsels gathered by *Laurence Scholzius, Cons.* 6. thus:

Take *Butter made in* May, *if you can get it, or other that is fresh and well worked, or the marrow of an Ox or Deers Shank, and mix therewith as much of the fine pouder of Lapis Calaminaris as it will receive, make an Oyntment.*

The third is from *Pœnotus in denario*, thus made:

Take of *Tutty prepared one ounce and an half: Camphire one dram: Verdegreece twelve grains: Beat the Tutty with the Camphire together in a Mortar, the Verdegreece by its self, all very fine: Then take of fresh Butter one ounce: Rose water, one dram: boyl them gently together, and then take them from the fire, and first put in your Camphire with your Tutty, then your Verdegreece by degrees; stir them very well, and reserve them in a glass Make an Oyntment and strain it through a Sarsenet; anoint the inside of the Eye-lids, especially about the corners, and the Patient will soon recover. This is a most approved Medicine against Inflamations both with matter and dry, against itching of the Eyelids, and weeping.*

There is another very good, though sharp, and therefore must be only applied to the Eye lids; it is thus made: (And when al have failed, this hath cured the most desperate Ophthalmy) namely, Of *May Butter, and Juyce of Tobacco boyled to an Oyntment, which must be applied, the Eye-lids being closed, and in a dark room; as soon as the Patient opens his Eyes, it will begin to bite, and will certainly cure.*

In the height of the disease, you must apply more resolving than repelling Medicines, therefore they which were prescribed in the encrease of it are good in the height or state of it, if you encrease the quantity of the Resolvers, and diminish the Repellers. But especially these two following Oyntments may be used not only in the state and height, but in the declination, to the perfect cure of the Disease.

First Fomentations to discuss the matter, are good in the height of the Disease, made thus:

Take of *the flowers of Chamomel, Melilot, and Roses, of each one pugil: Fœnugreek seeds prepared as before shewed, two drams: Make a Decoction, with which foment the Eyes with four double clouts. This is good in the end, of the encrease, and the beginning of the state of the Disease; and in Winter you must use it hot, in Summer only warm.*

In the end of the state and declination, you must make a more resolving Fomentation, which is done by adding to the former Ingredients, the Leaves of Eyebright, Marjoram, Bettony, and a little white Wine.

The best and rarest Secret for the Cure of an Ophthalmy, is made of the Oyl which cometh from Linnen burnt between two close dishes; one drop of which mixed with the spittle of a Child must be dropped into the Eye with a Feather.

In the declination, not only the Remedies afore mentioned, but also Waters more resolving are to be used, as thus:

Take of *Frankinsence and Aloes, of each half a dram: Sarcocol washed with Breast-milk, one dram and an half: Saffron half a scruple: the Mucilage of Fœnugreek half an ounce: Fennel and Eyebright Water, of each one ounce and an half. Make a Collyrium.*

But if you wil, dry more, and also digest.

Take of *Sarcocol one dram and an half: Tutty prepared one dram: Aloes one scruple: Mirrh half a scruple: the Mucilage of Fœnugreek half an ounce: Vervain and Celondine Water, of each one ounce. Make a Collyrium.*

In a defluxion which comes of flegm, you may use strong Resolvers, not only in the declination, but also in the state and encrease of the Disease very confidently.

Moreover, In the declination Authors do set down two special Remedies, namely, The use of Wine, and Baths: which first were delivered by *Hippocrates*, Aph. 31. Sect. 6. in these words; Drinking of Wine, or Baths, or a Fomentation, or Blood-letting, or a Potion, do take away pains in the Eyes.

Galen in his Commentary thereon, distinguisheth the Case and the Time in which these Remedies are good, which we have explained as to Blood-letting, Fomentations, and Purging: But *Galen*

in the place cited, *cap.*22. *lib.*13. *meth.* teacheth that Baths are then good, when an Ophthalmy comes of sharp humors, and when the body is sufficiently clensed by purging and bleeding: because they qualifie the sharpness of humors, and stayes their motion and defluxion; the chiefest part of them being sent forth by insensible transpiration, and that which remaineth of the Chollerick humor is easilier overcome by nature.

Galen also commends a Bath in a Flegmatick Ophthalmy, alwayes using before Evacuations necessary, because the thick humors fastened in the Eyes are extenuated by Baths, and so are easily discussed.

So *Galen* in the same place saith, That the drinking of pure Wine is good for those who have thick blood in the veins of their eyes, and have not gross or phlegmatick bodies; because Wine doth dissolve, diffuse, and discuss the thick blood, and also openeth obstructions.

For the taking away of the remainder of Redness and Inflamation, make this Fomentation following.

Take of *the Leaves of Eyebright and Pennyroyal of each one handful: the Flowers of Chamomel, Melilot, and red Roses; and of Oaten chaff, of each one pugil: Fœnugreek-seed three drams: Fennel-seed one dram: make a Decoction, adding in the end a little white Wine, foment the Eye with this, dipping therein linnen Cloaths, or with bags being half filled with the aforesaid ingredients.*

Fennel watter alone mixed with astringent wine is a good Fomentation to discuss the reliques, and to strengthen the eyes.

An Egg boyled hard, and the shel taken off, and cut in the middle, laid hot to the eye, takes away the remainder of redness.

So doth a Fomentation made only of the Decoction of Hyssop.

An old Ophthalmy requires another and longer way of Cure, and is sometimes very troublesom to a Physitian; because he can hardly hinder a delicate and noble part from receiving a defluxion by which it hath been long weakned.

Moreover, This Disease is not only nourished by defluxion, but by congestion whereby there is destemper brought into the part, which also is hard to cure.

But for the Cure of it you must first observe whether the Disease come not from a hot Distemper of the Liver, as often it doth: and then you must first administer such things as amend that. And chiefly after convenient Purging and Bleeding, Baths are good, Whey, and Mineral waters of Vitriol, as also Horsleeches applyed to the Hemorrhoids.

But if the matter of the Disease come only from the distemper of the Brain through which watery Humors flow to the eyes being mixed with some blood: then you must fal to purging the head with ordinary Pills, twice, thrice, or four times in a month, after you have given universal Medicines, as Apozemes or the like; which you may make according to our description in the cure of cold Diseases of the Head.

If the aforesaid Purges with other Medicines now prescribed do not prevail, you must use Mercurial Purges as the most excellent, by way of intermission.

Moreover a Cautery applied to the hinder part of the head is very profitable, to divert the humor flowing.

Instead whereof you may apply a Seton to the Neck behind, with better success, to them who can endure it.

A Vesicatory applied to the fore-part of the Head, as *Forestus* reports, *Obs.*11. *lib.*11. did a wonderful cure upon an Old Woman with sore eyes.

But *Rondoletius* sayes, That a Cautery applied to the Coronal Suture, is better than to any other part.

Masticatories are profitable for the deriving of the Defluxion, but not Errhins because they are applied so neer the part affected that they may draw humors to it.

But if the Brain doth seem to want drying, you must have recourse to your sweating diet drink of China, Sarsa, and the like.

To these you may ad Topicks, which resolve and strengthen the eyes; such as are Fomentations and Unguents before mentioned for the state and declination of the Disease, which also are excellent for old Ophthalmies: nor must you forget the washing of the eyes as above mentioned with Fennel-water and red Wine, to take away the remainder of the redness, and to strengthen the eyes every morning.

For which purpose also,

Take of *the best Aloes, and of Tutty prepared, of each six drams: white Sugar one ounce: Rose-water, and mild white wine, of each six ounces: set them in the Sun fourty dayes in a glass well stopt: put some drops of this water not strained, into the Eyes.* Or,

Take of *white Wine three pints: Rose-water half a pint: Tutty prepared three drams: pow-*

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dered Cloves one dram: Camphire half a dram: mix them in a glaß close ſtopt, and ſhake them for two hours, and ſet in the Sun one whole month; remembering every day a little before Sun-ſetting to take it out of the air, and never bring it forth till the Sun is riſen: two or three drops of this water ſtrained by filtration, muſt be put into the Eye before he go to ſleep, or in the morning one or two hours before he riſe.

This takes away the oldeſt redneſs; it dryes up weeping, and Fiſtulaes; it conſumes al ſuperfluous moiſtures upon the outward membranes and quickens the ſight. This alſo following is excellent.

Take of *Wheat two handful: poudered Salt one handful: put them in a Copper Veſſel, and put white Wine to them two fingers breadth above them; cover the Veſſel, and let them ſtand in the ſhade ſix or ſeven dayes till the liquor turneth green, ſtirring them often with a wooden Spatula, after pour off the liquor by inclination without the dregs, and if need be, filter it. One drop into the Eye, takes away redneß, and defluxion, and all ſpots or blemiſhes thereon, and quickeneth the ſight.*

Solenander, commends highly the Decoction of Quince Leaves, which are to be gathered without breaking in the beginning of the ſpring, and kept diligently that they neither be duſty, nor muſty; nor otherwiſe defiled: and when you uſe them, boyl one handful of them in pure water, and let the Eyes be often waſhed therewith: It is a wonder (ſaith he) to ſee how it doth preſerve, cleanſe, and ſtop Rhewms in the Eyes.

Sometimes in an inveterate Ophthalmy much filth like matter is gathered in the eyes, which can ſcarcely be cured with Collyriums, or other remedies: but in this caſe fine Cotton dried at the fire and laid like a ſmal pillow upon the eye and rowled down, is very good; for the next morning you may take much filth away with it. And with this Remedy uſed many nights together many eyes have been cured which could not otherwiſe; and this kind of Medicine prevailes chiefly among Children that have ſore eyes.

For a Concluſion of this Chapter, it wil not be amiſs to ſet down the experimental Medicines of *Zacutus Luſitanus* who cured an old Ophthalmy wch would no otherwiſe be removed in a whol yeer with a Mercurial Unguent, although there was no ſign of the French Pox: being perſwaded by *Mercurialis*, who in his Book of the French Pox ſaith, *When you ſee any Diſeaſe that will not be Cured by ordinary means, imagine it to be the French Pox.* He asked the Patient if ever he had the French Diſeaſe, or ever lay with a foul bodied Woman? He denied al but only confeſſed that he lay with one Man once in the bed, whom he ſuſpected to be Frenchified: Upon this conjecture, the Phyſitian preſcribed a ſudorifick diet of Sarſa for twenty dayes, but to no end. And though the Diſeaſe was chiefly in the upper parts, ſo that it was to be feared, leaſt if he fluxed him at the mouth with Mercury that the humors ſhould fal more into the eyes, but in regard it was old, and the force of the defluxion was attained, he preſcribed the Unguent of Mercury after his body was wel Purged, and by it in ſeven dayes ſpace after plentiful Salivation or Spitting, his pains ceaſed, that inflamation was gone, the itching abated which was before in his eye-lids, with much acrimony: And ſo leaving him only an iſſue in his Arm to breath the Brain; and preſcribing a good diet, which he kept; the Patient returned to his former health.

The ſame *Zacutus Luſitanus* in his *Praxis ad Hiſt.* commends that Water and Oyntment which we mentioned in the Cure of Suffuſion, for an old Ophthalmy.

Chap. 9. *Of* Hypopyo, *or Matter under the* CORNEA.

WHen the Inflamations of the Eyes are great, and ſwelling; ſomtimes they cannot be reſolved, but they wil be ſuppurated; which is much to be feared, and to be prevented by al means: For from thence Ulcers wil come; and ſomtimes Matter is gathered under the Cornea, which Diſeaſe is called *Upopuon*; and this comes often from a ſtroak or contuſion, & blood-ſhotneſs: ſomtimes it covereth al the *Pupilla*, and hinders the ſight: ſomtimes it compaſſeth the circle of the Iris, and is like the pairing of a nail, and thence it is called *Onux*, or *Unguis*.

This Diſeaſe is known not only by the whiteneſs which is like Matter, but alſo from the Inflamation and Blood-ſhot that went before; for when the Eye is moved, there appears a motion of the Pus or Matter urder the Cornea. There is a redneſs in the Eye, and Pulſation; or at leaſt went before it.

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For the Cure, first using universal Medicines, if there remain any reliques of Inflamation, you must take them away by the Remedies prescribed in the Ophthalmy: then you must apply gently Discutients mixed with Emollients, lest when the thin part is resolved, the matter become thicker, and less fit to be dissolved. Therefore make your Fomentations of the Decoction of the flowers of Chamomel, Melilot, the seeds of Fleabane and Fenugreek, to be used with Linnen, or Bags. You may ad the Leaves of Eye-bright, Celandine, and Fennel seed: or use this following Collyrium.

Take of *the Water of Vervain, Rue, Celandine, Roses, and Fennel, of each half an ounce: the best Aloes and Tutty prepared, of each half a dram: Sugar-candy one dram. Pouder and mix them; with a little Breast-milk make a Collyrium, of which drop some into the Eyes twice or thrice in the day.*

This following is excellent:

Take of *Saffron, Aloes, and Mirrh, of each one dram: Wine three drams: Honey six drams: Dissolve the Saffron in the Wine; then mix them with the Aloes and Mirrh, then put them to the Honey, and anoint the Eyes.*

Lastly, Those Medicines which were prescribed in the declination of an Ophthalmy, in the spots or Maculæ of the Eyes, and in Suffusion, or Cataract are good here.

If the Matter cannot be discussed with Resolving Medicines, you must seek others. *Gal.* in 14. *Meth.* reports, That there was one *Justus* an Oculist in his time, that cured many of this Disease by shaking their heads; for setting them straight upon a seat, and taking hold on both sides of their head, he shaked them till he perceived the matter to descend.

But if the matter which hindereth the sight cannot be thus cured neither, *Galen* in the place cited flies to Manual Operation, or Chyrurgery; whom *Ætius* and others do follow, which is done by pricking of the Eye, which is used also in a Cataract. Which operation, as it is little used in our times, so it requireth the hand of a most skilful Chyrurgion; and it is much to be feared, lest when the Cornea is opened, the Watery Humor come forth with the matter.

Chap. 10. *Of* Phlyctænæ, *or Blisters in the Eyes.*

IN the *Cornea* and the *Adnata Tunica*, as in other parts of the Body, there breed sometimes little blisters full with water, like bubbles, or bladders, which come from the heat of the Humor *Phlyctainai* in Greek, and called in Arabick *Bothor*: and they are little tumors like Gromwel seeds, coming from a sharp watery humor.

They are easily known. They in the Adnata are red: in the Cornea, blackish, if they be outward; but white if they be in the inner part of it.

As to the Prognostick: *Phlyctænæ* which grow in the Adnata, are less dangerous than they in the Cornea. The more superficial these Pustles are, the less dangerous they are; the more inward, the more danger; for it is to be feared lest the whol thickness of the Cornea be eroded, and so either the watery humor wil flow forth, or else the Uvea wil start out.

The Cure consisteth wholly in the resolving of the matter conjoyned, and the averting of the antecedent cause. And we must take heed lest we bring these Pustles to suppuration, lest they turn into Ulcers.

Therefore those Universal Evacuations, Revulsions, and Derivations, which were declared in the Cure of the Ophthalmy, must here be used.

Afterwards, we must apply Topicks, or Medicines to the part, which at the first must gently repel, and discuss; such as were laid down for them in the treaty of the encrease of Ophthalmy, which are most proper when there is an Inflamation also, as it often falleth out.

Afterwards you may use more drying and dissolving Medicines, such as are described for the state and declination of Ophthalmy; and especially the Oyntments there set down, which are very proper to discuss and dry up Pustles.

Chap. 11. *Of the Ulcers in the* Cornea *and* Adnata.

AFter an Ophthalmy, there followeth often Ulcers in the Tunicles called *Cornea* and *Adnata*, when it comes to suppuration. They follow also the *Phlyctænæ* or Pustles, which bred in the *Cornea*, but not till they break. They also use to come from sharp corroding humors flowing into the Eyes.

There are divers sorts of these Ulcers mentioned in Authors, taken from their divers circumstances, as they are superficial or profound, broad or narrow, and according as they differ in shape and figure, and the like. So a hollow, narrow, and hard Ulcer is called *Bothrion*, or *Fossula* like a little trench,

trench: A broad and not ſo deep an Ulcer, is called *Coiloma*: That which cometh in the Circle Iris, is called *Argemon*, or *Ulcus Coronale*: Finally, that which is deep and hard, is called *Epicayma*, and *Egcayma*.

The knowledg of Ulcers is eaſie, for they may be ſeen: If the Ulcer be in the Cornea, there will be a ſmal white blemiſh in the black of the Eye; if in the Adnata, there wil be a ſmal white blemiſh in the white of the Eye, becauſe the Veins of the Tunicle Adnata are ful of blood.

The Ulcer of the Eyes are dangerous, and hard to be cured; but more in the Cornea than in the Adnata. An Ulcer in the Pupilla is more dangerous, becauſe after it is cured, it wil leave a Scar, which wil hinder the perſpicuity of the Cornea, and ſo the ſight wil be hurt; and if the whol Tunicle be corroded, the Watery Humor wil flow out, and the Uvea ſtart forth.

The Cure of this Diſeaſe, as of other Ulcers, is, By cleanſing and drying means; but they muſt be very gentle by reaſon of the tenderneſs of the part, and exquiſitneſs of the ſence. But you muſt firſt uſe ſuch things as revel and hinder the flux of humors from the Eyes; as in Ophthalmy either old or new, were declared. And if there be an Inflamation with it, you mix muſt things that are proper for that. With which alſo you may uſe things that aſſwage pain, if there be any.

Theſe things do moderately dry and cleanſe: Sugar, Honey, Saffron, Mirrh, Frankinſence, Aloes, Sarcocol, Tutty, and Ceruſs; of which you may make theſe following Medicines:

Take of *Barley and Fœnugreek Water boyled, four ounces: the beſt Honey half an ounce: or of the Syrup of dried Roſes, one ounce: Make a Collyrium to waſh the Eyes often.*

Take of *Vervain and Plantane Water, of each two ounces: Sugar candy half an ounce. Mix them for a Collyrium.*

Take of *the Water of Honey diſtilled in* Balneo, *and of Roſe water, of each equal parts.* Or,

Take *a hard Egg peel'd, cut it in two pieces, and taking out the Yolk fill the hollow with the pouder of Sugar candy; tie it faſt, and hang it in a Wine Celler, and you ſhall have a Water drop from it, which is excellent to cleanſe the Eyes without pain.*

But if you wil have it ſtronger mix the Pouder of Mirrh with your Sugar candy.

Montanus highly commends this Pouder following:

Take *twenty Whites of new laid Eggs, put them in a pewter diſh in the Sun till they are dry: then pouder them finely with as much Sugar; and this pouder put into the Eyes, doth much good without cauſing pain.*

In the Progreſs of this Diſeaſe, if you will cleanſe and dry more, put to the former Medicines the white Troches of *Rhaſis*, Frankinſence, Aloes, Mirrh, Sarcocol, or the like, but in a ſmal quantity leſt it be too ſharp, and alſo mix them with Milk, white of an Eg, ſome Mucilages, and other Anodines, or things that mitigate and aſſwage pain.

Tutty is the beſt, for it cauſeth no pain, and dryeth and healeth; therefore Collyriums, or Unguents are good that are made thereof. And chiefly the Oyntment preſcribed in the cure of Ophthalmy, which hath in it a great quantity of Tutty.

This following is very cleanſing, drying, and healing.

Take of *Sarcocol ſteep'd in Roſe Water, Ceruſs and waſhed Aloes, Mirrh, and Tutty prepared, of each half a dram: Sugar candy one dram: With the Mucilage of Gum Traganth drawn with Roſe Water, make a Collyrium, with which anoint the Eye-lids.*

Chap. 12. *Of a Cancer in the* Cornea.

AS a Cancer may come in other parts, ſo ſomtimes it breeds in the Eyes. And though the knowledg and Cure of a Cancer is in the Treatiſe of external Diſeaſes, yet we wil ſpeak briefly here of thoſe things which properly belong to a Cancer in the Eye.

A Cancer is either occult, or hidden, or ulcerated. The occult is reckoned among Tumors, and it is called a Cancerous Tumor, or Cancer of the Eye: But the ulcerated is called a Cancerous Ulcer in the Eye.

But in both there is an unequal hardneſs, a blew Lead color, a ſtrong pricking pain, eſpecially about the Head and Temples: the Veins adjoyning are blew, and very full. Somtimes aduſt and ſharp blood floweth from the part affected, when the Cancer is ulcerated. And this pain is encreaſed by any warm Medicines.

This Diſeaſe is incurable, as wel in the Eye as in any other part, when it is fixed; except it be taken away by manual operation.

Authors propound two waies of Cure, namely a True, and a Palliative. A true Cure (as was ſaid) cannot be wrought but by Chyrurgery when the Cancer is fixed: but when it is new in the beginning, it may be cured by often evacuation of the Cholleric humor, firſt having let blood; as *Galen* teacheth 2. *ad Glauconem, cap.* 10. where he boaſteth that he hath often cured this diſeaſe, adjoyning a convenient Diet with the aforeſaid Phyſick. A Pal-

A Palliative Cure, which tends only to the mitigation of Symptoms, is done not only by the aforesaid Evacuations but also by convenient Topicks.

First then you must appoint a convenient Diet, such as is good against burnt Choller; and it must be cooling and moistning.

Then draw Blood on the same side, and apply Horsleeches behind the Ears, and also to the Hemorrhoids if they do appear, applying Cupping Glasses to the Shoulders, and use other kinds of Revulsions.

You must also prepare and Purge Melancholly by Potions, Apozemes, opening Broaths, by Magistral Syrups, and the like: But above al for the purging of Melancholly black Hellebor wel prepared is the best; and by giving the Extract thereof twice or thrice, we have somtimes cured a Cancer in the beginning.

These Remedies do exceedingly diminish the Humors that flow to the Eyes, and take away pains and other Symptoms: for which purpose also Topicks are good, such as are prescribed in Ophthalmy, for asswaging of pain: especially the Collyria made of Mucilages, the white Troches of Rhasis, and prepared Tutty, with the water of Roses, Nightshade, and Plantane.

This following Water is a good Collyrium to wash the Eye with.

Take of *the Roots of Pilewort, and herb Robert, of each two handfuls: Ribwort, Nightshade, Borrage, Bugloss, Purslain, Eyebright, and Bettony, of each one handful: green Frogs, and whites of Eggs, of each twelve in number: the seeds of Fœnugreek and Quinces, of each one ounce: let the Roots and Seeds be bruised, and the Leaves Cut: then pour upon them of Eyebright and Rosewater of each one pint: mix them and Distil them in a pewter Still.*

The flesh of Chickins is very powerful to asswage pain: and some say that the Disease it self hath been Cured by it alone. So *Maritius Cordæus*, Comment. 7. in lib. 1. *Hipp.* of Womens Diseases, relates a history of a noble Woman, who had the right side of her face a long time infected with a Cancer ulcerated, and having tryed al means she could from Italian, French, German, and Spanish Physitians, was at length Cured with this vulgar Medicine by a Barber: He took Chickins and cut them in thin broad pieces, which he often applied to the Cancer: Others apply the flesh of yong Pigeons so cut, while it is warm.

Finally, The true Cure of a fixed Cancer is only by taking it out by the roots, and is by a taking out of the Eye; which *Fabricius Hildanus* saith may be done very safely; and he sheweth the manner and Circumstances thereof at large, *Observ.* 1. *Cent.* 1. so that we shal not here Repeat them.

Chap. 13. *Of the Rupture of the Cornea.*

SOmtimes the *Cornea* Tunicle is so divided, that the watery Humor, and somtimes the *Uvea* also cometh forth; and this is called the Rupture of the *Cornea*.

The Cause of this is an Ulcer, or Wound in the Membrane, or a great afflux of Humors, by which the said Membrane is so distended, that it cracks in the middle, and the Humors conteined are let out: As *Paræus* reports it happened to a certain Woman in Paris, *lib.* 16. *cap.* 13.

This Disease is for the most part incurable, and takes away sight, because the Humors of the eye cast forth cannot be repaired: but if the Wound be smal, so that only a portion of the watery Humor is only lost, it may be Cured; for the watery humor may somtimes be renewed: as *Galen* taught 4. *de symp. caus. cap.* 2.

You must use Astringent and Glutinating Medicines; having first Bled and Purged if necessary, as the white of an Egg, with the white Troches of Rhasis dropt into the Eye.

Let the part be Fomented with a Decoction of red Roses of *Solomons* Seal, Bramble buds, shepheards-purse, and Plantane boyled in red Wine if there be no inflamation; but if there be, in spring water.

Take of *Quinces half a pound: red Roses three pugils: Acacia two drams: Saffron one scruple: boyl these in red Wine, and make a Cataplasm to be applied to the part.*

For the perfect Consolidation and Cure, use this Collyrium.

Take of *washed Aloes, Tutty prepared, and Sarcocol steept in breast Milk, of each half a scruple: Saffron five grains: with the Mucilage of Gum Traganth, make a Collyrium.*

CHAP.

Chap. 14. *Of the Coming forth of the* Uvea.

UPon the Rupture of the *Cornea*, often comes the shooting forth of the *Uvea*, which is called in Greek, *Propto sis Kagoidous*: there are four kinds mentioned by Authors, especially by *Paulus*; of which the first is called *Muocephalon*, because it is like the head of a Fly: and this is when a smal portion of the *Uvea* comes forth. The second is called *Staphuloma*, and this is when a great part of the *Uvea* comes forth so that it is like the stone of a Raison. The third is called *Melos*, when there is so great eruption of the *Uvea*, that it seems like an Apple. The fourth is called *Elos*, or Clavus, when the *Uvea* being come forth groweth hard.

The Cure of this Disease is Difficult, and the more when the *Uvea* comes most forth: but when it is smal, as in *Muocephalon* it is Curable by moderate astringents, such as we prescribed in the Rupture of the *Cornea*.

The Antients as *Paulus Aetius*, and *Celsus*, do labor to Cure them when old and not moveable by Medicines, with Chirurgery; but this is now out of fashion, by reason of its great difficulty and doubtful succes: but if any will try it, he shal find the way exactly set down in *Jerom. Fabricius, ab Aquapendente, cap. de staphylomate.*

Chap. 15. *Of* Ægylops, *and Fistula Lacrymalis.*

HItherto we have spoken of the Diseases of the Eyes which happen in the humors and upon the Tunicles; it remaineth that we speak of the Diseases of the Corners of the Eyes and Eyelids.

And first of the Tumor in the great Corner of the Eye, by the Root of the Nose, called *Ægylops*, and *Anchylops* if not broken.

This little Tumor, is either with, or without Inflamation.

When it is inflamed, it is like a smal Phlegmon: or Bile, red about, with a shooting pain. And it comes of thin and chollerick blood that flows into the part by the veins of the Temples, Fore-head, and Face, and so impostumateth; which being open produceth an Ulcer, which speedily turns hollow, and then it is called *Fistula Lachrymalis*. And if this continueth one yeer, there is a Caries or foulnes of the Bone, as *Hippocrates* saith, 45. *Sect.* 6. In Ulcers of a yeer old, the Bone is foul: And this Caries is known by the Cavity, which is known by the finger: and by the stinking Matter flowing from it.

Somtimes it comes without Inflamation, and then it is bred of a thick slimy Humor, like Pulse or Hony: As the Tumors called *Atheromata*, *Steatomata*, *Meliceris*, which are without pain.

The Cure of an *Ægylops* is very hard, both in regard Medicines are ill to be applied to it, by reason the sight is so nigh; and because an Impostume wil quickly Ulcerate in such a tender part (as aforesaid) But it is most difficult when the Impostume breaks out at the Nose, and the Matter flows through the Nostrils; because thereby the Bones wil be putrified.

Somtimes *Ægylops* turns to a Cancer, which comes with a prieking pain; extension of the veins, hardnes and blewnes of the skin, and then it is better to let it alone, because Medicines wil enlarge it, and encrease pain.

A *Lachrymal Fistula* that is newly begun, and which hath an external orifice to be seen, is cureable by Medicines; but that which is deep and old, and hath fouled the Bone, is scarcely Cured without burning.

The divers times of these Diseases require divers Medicines.

And First in the beginning of an *Ægylops* you must revel the defluxion from the part by bleeding and purging; and use repelling Medicines to the Forehead, by which somtimes the Progres is stopt before it come to suppuration.

For this end, use the following *Ceratum*.

Take of *Pomegranate-peels, Acacia, Pomegranate flowers, Galls, Cypres-nuts, Roch-Alum, Bole-Armenick, of each one dram: white Wax four ounces: Turpentine three drams: Make a Cerate.*

After the use of Repercussives, you must apply Resolvers to the part affected, as this Decoction.

Take of *pure Honey and Aloes, of each two ounces: Mirrh one ounce: Saffron one dram*

and an half: Water two pints: Boyl them gently to the consumption of half: dip a piece of soft Spunge therein, squeeze it a little, and apply it hot to the part, bind it on; and do thus often.

Amatus Lucitanus, Curatione 68. *Cent.* 5. prescribes a Cerat against Ægylops, which he highly commends, which is this:

Take of *the Powder of Cockle shels, two drams: Mirrh, washed Aloes, and Frankinsence, of each half an ounce: Sarcocol, Dragons blood, and Ceruss, of each three drams: Opopanax dissolved in Wine, Vinegar and Blood-stone, of each one dram and an half: Saffron two scruples: Wax and Rosin, of each three ounces: Mix them according to art at the fire, and make a Cerate to be applied to the corner of the Eye.*

If the Tumor wil not be resolved with the former Medicines, but wil come to suppuration, you must help it forward with a Plaister of Simple Diachylon; or if there be pain or inflamation, you may apply a Cataplasm of Crums of Bread. If it wil not break, open it with a Lancet, and delay not least the matter contained do corrode the parts, and make an incurable Fistula. Many open it with a hot Iron, but the cold is best.

After the impostume is opened, you must clense the Ulcer, and heal it as others. But if it fistulate, cure it thus:

First make a general Evacuation by bleeding and purging. You must divert the defluxion from the Head by Cupping-glasses, Vesicatories, and Caustick applied to their proper places; and then use the decoction of China, or Sarsaparilla, for many daies. And at the same time dry the Brain with Fumes and Head Pouders, as in a Catarrh.

Instead of a Cautery you may apply a Seton to the Neck; for *Fabricius Hildanus* reports Obs. 41. Cent. 1. that it hath done it alone without other means.

If the distemper of the Liver be the Cause of the defluxion (as it often is) you must have a special care to administer Medicines proper for that.

When you use Topicks, open the orifice of the Ulcer, and dilate it by degrees, with a Tent made of an Elder pith, a spunge made fit, or a Gentian Root. When it is large enough, apply this following Medicine, commended by *Forestus, Obs.* 17. *Lib.* 11.

Take of *Honey two ounces: Verdegreece one dram: Water of Rue four ounces: Pouder the Verdegreece very fine, and boyl it with the rest at a gentle fire till the third part be consumed, and make a warm injection of the strained Liquor with a Syringe: if this be too sharp, wash the Ulcer every day with the Water of Rue, and after apply a little* Unguentum Apostolorum. *Continue this course for three weeks, laying on some convenient Plaister, and defending the Eye with Rose Water.*

When the Ulcer is sufficiently purged, use this following Collyrium to incarnate and cicatrize:

Take of *Frankinsence, Aloes, Dragons blood, Pomegranate flowers, Allum, and Antimony, of each one dram: Verdegreece five grains: Pouder them fine, and with Rue Water make a Collyrium to be dropt in with a stalk of Rue, thrice in a day, and put in a tent wet therewith, laying upon it a Diapalma Plaister: Lessen your Tent by degrees, and at length take it quite out, only washing the part with the aforesaid Collyrium, and laying on Diapalma.*

Forestus in the place cited saith, that new fistulaes have been cured thus by a famous Chyrurgeon of his time.

If it appear that the bone be foul, it must only be cured by an actual Cautery; the manner of which is exactly described in *Paræus, Fallopius*, and *Aquapendente* in their Works: But *Fabricius Hildanus* Obs. 22. Cent. 5. boasteth that he cured a Fistula lachrymalis with foulness at the Bone, that was four yeers old, and counted desperate, in a child of thirteen yeers of age, with Medicines alone, dilating of it with prepared Spunges, and after sprinkling Euphorbium into it, and that very much and often; and after applying only an Emplaister of Gum Elemi. Having used these things diligently for the space of divers weeks, he perceived a scale of the Bone, which he drew forth; and then with half a drop of Tolutan Balsom upon a little Lint, once in a day conveyed into the Ulcer, he perfectly consolidated the Fistula in a short time.

Chap. 16. *Of Rhyas and Encanthis.*

ANother Disease often followeth the Fistula *Lachrymalis* called *Rhyas*; and this is the consuming or diminishing of the smal flesh in the great corner of the Eye, from whence it is enlarged: This comes also of other Causes, as sharp humors falling upon the part, or from clensing Medicines formerly misapplyed.

Encanthis is contrary to *Rhyas*, which is the immoderate encrease and swelling of the Caruncle, or

or little fleſh in the great corner of the Eye; and this comes from much blood flowing to the part, and the not orderly curing and drying up of the Ulcer.

The Cure of *Rhyas* is by Incarnatives, ſuch as follow:

Take of *red Roſes, one pugil: Cypreſs Nuts, and Myrtles, of each two drams: Aloes one dram and an half: old Wine one pint: Boyl them till the fourth part be conſumed: waſh the part often with this Decoction.* Or,

Take of *Aloes and Frankinſence, of each one dram: Dragons blood half a dram: red Roſes and ſeeds of Sumach, of each one ſcruple: Roſe Water one pint: boyl them to the conſumption of the fourth part. Make a Collyrium.*

Encanthis is cured by taking away of the ſuperfluous fleſh growing in the corner of the Eye; this is done with eating Medicines, beginning with the mildeſt firſt, therfore firſt uſe burnt Allum; after proceed to *Apoſtolorum Ægyptiacum*, or burnt Vitriol. But if theſe will not do, cut it out, or burn it with an Iron. But before you do theſe things you muſt prepare the Body with convenient Evacuations leaſt you cauſe a new defluxion: but in the cutting, burning, or conſuming of this Caruncle with Medicines, you muſt take heed that you take it not wholly away, but only that which is ſuperfluous, otherwiſe it wil turn to *Rhyas*.

Chap: 17: *Of Epiphora.*

THe word *Epiphora* ſignifieth any Defluxion into any part. But through cuſtom it is uſed eſpecially for the defluxion of a thin Rhewm from the Eyes; hence it is called involuntary weeping, which flows dayly from the corners of the Eyes.

For the producing of which Humor flowing preternaturally there is an evil diſpoſition in the part from whence it cometh, and in the part receiving it: the part that ſends this humor is the Brain, which when it is too hot, or too cold gathereth a watery Humor, and ſo ſends it to the inferior parts, which are fit to receive it: The part receiving is the Glandle or Kernel by the great corner of the Eye, and the Caruncle upon the corner; the thinneſs, or thickneſs, or other weakneſs of which parts cauſeth that they eaſily entertain the humors that flow thither. Therefore an Epiphora happeneth often in an Egylops, a Lachrymal Fiſtula, a Rhyas, and Encanthis, becauſe the ſuperfluous humors uſe to be eaſily received into the parts affected.

This humor is carried from the Brain into the corners of the Eyes, ſomtimes by the internal Veins, ſomtimes by the external, as we ſhal ſhew you hereafter by their proper ſigns.

But the Humor which maketh an Epiphora, is ſomtimes cold, and brings no other inconvenience, but only defluxion, ſomtimes it is ſalt and ſharp, and cauſeth pain, heat, and redneſs, and exulceration of the Eyebrows.

There need no ſigns to be given of Tears, they are viſible. It wil appear by what hath been ſaid whether they are cold or hot, and ſharp. But we muſt diſtinguiſh whether they come by the internal or external Veſſels. When by the internal, there is pain in the inſide of the head, and ſomtimes violent neeſing. But if they come by the external without the Skul. The Veſſels of the Forehead and Temples are ſtretched, and the head ſeems to be bound about and aſtringent means, outwardly applyed do help.

As to the Prognoſtick; New Epiphora's coming from outward cauſes are eaſily cured, eſpecially in youth: but old, and in old men very hardly. They which proceed from other diſeaſes, as Ægylops, Fiſtula Lachrymalis and the like, have their Cure with the diſeaſes whence they came.

The Cure of this Diſeaſe conſiſts in taking away the defluxion, and ſtrengthening the part receiving.

You muſt take away the defluxion with Evacuation of the humor offending, revulſion, derivation, and ſtrengthening the part from whence it cometh.

The Peccant humor which is a Water ſuperfluous in the Brain, muſt be evacuated with bleeding and purging.

Blood-letting is not good in a cold diſtemper of the Brain, except there be manifeſt ſigns of plethory or fulneſs; but in a hot diſtemper, when the humors are very ſharp, it is very good, and you may uſe it twice or thrice if need be.

You may purge by Potions, Apozemes, Pills, and the like, which you may proportion to the condition of the Patient.

Make a revulſion of the humors flowing by Cupping-glaſſes often applied to the ſhoulders, by Veſicatories to raiſe bliſters behind in the Neck, or with Cauteries to the hinder part of the Head, and Iſſues in the Arms.

In a ſtubborn *Epiphora*, a Veſicatory applyed to the fore-part of the Head doth wonders; as *Foreſtus* ſheweth, *Obſ.* 11. *lib.* 11. concerning an Old Woman who had ſore Eyes, weeping and mat-

tery, with great pain and itching, and could by no means be Cured, that with applying a Plaister of *Cantharides* with Honey and Leaven to her head being shaven, he perfectly Cured her.

Rondeletius saith, That a Cautery applyed to the *Commissura*, doth more good than when it is used to any other part.

For Derivation, use Leeches behind the Ears; and Masticatories every morning.

But least the Humors once evacuated should breed again, the Brain must be strengthened and dried; and if it be too cold, you may use al our Remedies prescribed in the Cure of the cold Distemper of the Brain. But if it be too hot, those things which we prescribed in the Cure of a hot Catarrh; especially such as respect the Brain most, are here to be used.

While the former Medicines are used, you must apply Topicks to the part receiving; and first if the Humor comes through the external veins, apply Astringents to the Forehead and Temples: and if the Defluxion come from a sharp hot Humor, use the following Cataplasm.

Take *Bole-Armenick, Dragons Blood, Pomegranat Flowers, and Mirtles, of each one dram and an half: Accacia and Hipocistis of each one dram: Frankinsence and Mastich of each two scruples: Red Roses one pugil: Pouder them and mix them with the white of an Egg and a little Vinegar, make a Cataplasm, which spread upon a Cloth and apply to the Fore-head and Temples, and renew it as fast as it groweth dry.*

If it come of a Cold Humor, apply this following Cerat.

Take of *Frankinsence and Mastich of each one dram and an half: Gum Anime, Tacamahacca, and Blood-stone, of each one dram: Gum of Juniper two scruples: Turpentine and Wax as much as will serve turn: make a Cerat.*

But you must apply Astringent and Drying Medicines to the part affected: which are thus made.

Take of *Tutty prepared one dram: Sarcocol half a dram: Frankinsence and Mastich of each a scruple: Spicknard six grains: make Troches, which being mixed with the white of an Egg, or the juyce of Quinces may be applyed to the corner of the Eye.* Or,

Take *Tutty prepared in a fine Rag, and tye it with a string, and put it in sharp Wine, and with this often wash the Eyes.* Or,

Take *Tutty prepared, Egg shells poudered, the best Aloes, of each one dram: tye them in a Rag and make a little Ball which steep in Fennel-water, and squeez the Ball often into the Eyes.*

Only Aloes poudered and made into a Ball (as above) and put into Rose-water, is very good. Or,

Take *Aloes, Cypress Nuts, Frankinsence, Mastich, Myrrh, of each two drams: Tutty prepared, and Sarcocol, of each one dram and an half: Sanguis Dragonis, Barberries, Sumach, red Roses, of each one scruple: Pouder them finely, and with Fennel-water make a Collyrium.*

In a Hot Defluxion this is excellent.

Take of *white Troches of Rhasis without Opium, Sarcocol, Lycium or Box-thorn, Acacia, Olibanum, of each one dram: the stones of Myrobalans calcined, of white and red Coral, of each half a dram: Pearl half a scruple: as much of the juyce of Pomegranats boyled to half, as will make a Collyrium.*

If Redness be joyned with it, this following is profitable.

Take of *the seeds of Sumach bruised one scruple: hot Plantane Water one ounce: macerate them a while, then press them strongly, and put of Rose, Eyebright, and the Waters of the white of an Egg well beaten, of each half an ounce: Sugar Candy finely poudered and strained with a little water, one scruple: Make a Collyrium.*

Lastly, Those Medicines which were prescribed for an Old Ophthalmy, are good in this Disease.

CHAP.

CHAP. XVIII.

Of Pterygium, *or Haw in the Eyes, called* Unguis.

THis is a Hard and Nervous little Membrane, which coming out of the great Corner of the Eye, firſt covereth the white, and after by continuance, the black; and covering the *Pupilla*, hindereth the ſight.

Somtimes it is thin and white; ſomtimes it is fleſhly with many red veins, and it is called a *Pannicle*, and *Sebel*, by *Avicen*; although ſome diſtinguiſh a *Pannicle* from a *Haw*, or *Ungula*; becauſe *Ungula* is a Nervous Tunicle without repletion of veins, and is only in the *Adnata*: But *Sebel*, or *Pannicle*, Covereth the whole Eye, and is very Red, and full of Veins.

This Diſeaſe comes from Ulceration of the fleſh in the Corner of the Eye; or, of the *Adnata*, whence there comes a roughneſs or inequality in the part, which while the Nouriſhing Faculty labors to make equal, it fills with blood, and begets a preternatural encreaſe, or covereth it with a Skin.

And becauſe many Excrements do uſe to flow to an Eye diſordered, therefore the *Haw* is not bred of pure Blood, but of many Excrements alſo, whence ariſe many ſorts of *Haws*: Becauſe,

Some are Hard, others Soft, ſome White, ſome Red, ſome Yellow, ſome Brown, others are eaſily ſeparated from the *Adnata* and *Cornea*, others ſtick faſt; ſome are ſimple and without Malignity, others are Cancerous and filthy.

The Diagnoſis, or Knowledge of this Diſeaſe, is known by what is ſaid; alſo the Cauſes, namely, The Humors of which it is made, may be known by their Colour; for a Red *Haw* comes of pure Blood: a Yellow, of Choller: a White, of Flegm: a Dark and Black one, of Melancholly.

As to the Prognoſtick, This Diſeaſe is ſcarcely to be Cured, and that in a long time; becauſe ſharp Medicines which are proper for to eate it away, cannot be uſed but by degrees, by reaſon of the exquiſite ſenſe of the Eyes.

If the Eye Affected grow ſmaller, it is an evil ſign; for it argueth the Debility of the part.

A new *Haw* and ſmal, may be Cured with Medicines; but an over-grown, old, and one covering the black of the Eye, cannot, but by Chirurgery.

A *Haw* which is thick, turn'd out, ſtretcht forth, hard and black, cannot be Cured; for it is of a Cancerous nature.

The Cure is to be by the Antecedent and Conjunct Cauſe.

In reſpect of the Antecedent, firſt good Diet is to be enjoyned, ſuch as is mentioned in other Diſeaſes of the Eyes from Fluxes.

Alſo the afore-mentioned Evacuations and Revulſions may here be uſed, namely, Purgations, Bleeding, Cupping, Veſicatories, and the like.

And when the Body is ſufficiently Purged, we muſt come to Topicks, which may Conſume the *Haw*.

Beginning firſt with Mild, ſuch as were they which we ſpake of in Curing of the Spots in the Eye, called *Phlyctænæ*: which not prevailing, we muſt uſe ſtronger, which are frequent in Authors.

Foreſtus commends this following.

Take of *the juyce of Fennel four ounces*: *the juyce of Celandine three ounces*: *the juyce of Rue two ounces*: *the juyce of Mallows two ounces and an half*: *Aloes one dram*: *Vitriol two ſcruples*: *Verdugreeſe one ſcruple*: *Ginger and Cinamon, of each half a ſcruple*: *the Gall of an Eel half an ounce*: *the Gall of an Ox, or Hog two drams*: *Sugar Candy two ſcruples*: *Let the juyces boyl with the reſt, and then clariſie it and make a Collyrium.*

This alſo is by him Commended.

Take of *Blood-ſtone two drams*: *white Vitriol and Verdegreece calcined, of each three drams*: *Myrrh and Saffron, of each one dram*: *Long Pepper half a dram*: *Sugar Candy half an ounce*: *Pouder them very fine, and mix with one dram of this Pouder two drams of Radiſh-water, and apply twice or thrice in a day, as the Patient can endure it.*

Before you uſe theſe Remedies, you muſt Foment the part with an Emollient Decoction, which you muſt do alſo afterwards to aſſwage the pain.

Among

Among the Mildeſt, this following is beſt.

Take of *Cuttle Bone*, *one ſcruple*: *Sugar Candy*, *one dram*: *Vitriol*, *half a ſcruple*: *Tutty Prepared*, *half a Dram*: *Mix them*, *and make a fine Pouder*, *to lay upon the Haw.*

If it cannot be taken off with theſe Topicks, you muſt fall to Chirurgery, and taking up the *Ungula* with a Hook at the bottom or root; draw a double Thred through it with a Needle, then laying it down cloſe on both ſides beneath, cut it off with your Ciſſours; as is more at large ſhewed by *Celſus*, *Paulus*, *Aetius*, *Jerom ab Aquapendente*, in their Chirurgery, and by others.

Having made Inciſion, lay on a little Lint dipped in Roſe-water and the white of an Egg, to aſſwage pain, and hinder Inflamation.

And Laſtly, you may Heal it up with drying Medicines, as Collyriums of Tutty, Frankinſence, Aloes, the white Troches of Rhaſis, and the like.

The End of the Second Book.

THE

THE THIRD BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Ears.

The PREFACE.

THE *Ears as* Galen *sheweth in* 1. de symp. caus. cap. 2. *have divers Diseases similary, organick, and common; which because they are not to be known, but by their Symptomes, I determine to reduce them into a Series of Symptomes. The symptoms in the Ears either are such as come from the Action hurt, or the fault of the Excrements. The Action is hurt either in the Ear alone, or in all instruments of Sence. The Action proper to the Ear, namely, Hearing, is hurt by being abolished or diminished and depraved. It is abolished by Deafness, diminished by thickness of Hearing, depraved by a noise in the Ears. The Action common to all the Instruments of Sence, is Feeling, by which they are subject to pain. The fault in the Excrement is seen by all those things which come preternaturally out of the Ear. So this whol Book hath four Chapters. The first is of Deafness and thick Hearing. The second of noise in the Ears. The third of pain in the Ears. The fourth of those things which preternaturally come forth of the Ears.*

Chap. 1. *Of Deafness, and thick or dull Hearing.*

WEE comprehend Deafness and thick Hearing in one Chapter, because they come of the same Causes, differing only in Degrees, so that when they are great they take the Hearing quite away; when less, they diminish it: And both these are called vulgarly Deafness; for they who cannot hear any but such as speak very loud, are called deaf folk.

But *Surditas* properly, or Deafness, is called in Greek *Cophosis*, when the Hearing is totally gone; so that the Patient either heareth no noise, or if he do, he cannot distinguish it. These are often dumb if they are born so; not only because men learn to speak by Hearing; but by reason of the great consent that is between the Instruments of Hearing and Speaking by the Nerve of the fifth Conjugation, whose chief Branches are brought to the Ears, but some of them reach to the Tongue and

and Throat; whence it is, that when the inner Ear is pulled, there is a cough raised; and the reason is plain, for they who are born deaf, if they had their Instruments of Speech corrupted, would by a Natural instinct send forth some Articulate voyce; as other Creatures, although they are kept from their birth, from other Creatures of the same kind, so that they never hear them, yet they produce their connatural voyce; but men born deaf never sent forth an articulate voyce, but only a confused sound, which argueth a manifest hurt of those parts which serve for Speech. Now the hurt of those parts is chiefly from humidity, which affecting that Nerve which goeth to the Ears, Tongue, and Throat, must needs hinder both Speech, and Hearing.

Thick Hearing is called in Greek *Barnecoia*; and they who are so hear difficultly, and understand not what men say, except they speak very loud: Others cannot hear so wel, and not except the speakers whoop and hallow in their Ears.

Both these Diseases come from the distemper of the Brain or Ears.

A cold distemper of the Brain, or repletion, or weakness, or some other hurt in that part, especially in which is the rise and progress of the Hearing Nerve, may cause Deafness or thick Hearing.

The Diseases of the Ears are either in the inside or the outside thereof.

In the exterior Cavity, a perfect or an imperfect stoppage from a Tumor, Imposthume, or Blood, Matter, Flegm, and other things coming either from within or without, may cause a defect in the hearing. But you must observe, that the stoppage of the external passage cannot make a perfect and absolute Deafness, but only thick hearing, because sounds may be carried by the mouth also, to the Ears. For there is an open way from the internal Cavity of the Ear to the Pallat, by which sounds do easily pass, and insinuate themselves into the Ears; and this passage is made for the purging of the Ears. And many Experiments do shew that a sound may pass through the open mouth to the Ears. We may observe that they who are very thick of hearing, wil open their mouths that they may better hear those that speak unto them. And if you stop both Ears close, and strike a Musick Instrument with a stick held in your Teeth, you wil hear the sound better. And when you travel in the night, you wil better hear any man coming afar off, if you put one end of your Sword or Staff between your Teeth, and fasten the other end upon the ground.

The Humors which are gathered into the internal Cavity of the Ear, and especially such as flow from the Head do cause deafness or thick hearing in the inner part of the Ear, and these are for the most part flegmy, and somtimes chollerick; as appears Aph. 28. Sect. 4. where *Hippocrates* saith, that chollerick Evacuations are good for deaf men; somtimes bloody are good, for it is manifest, that the deafness accompanied with the Crisis, comes from the flux of blood to the Ears. Now the Humors are somtimes sent from the whol Body to the Ears, as in continual Feavers and especially those that are malignant. The ill composition of the Instruments of Hearing produceth the same effect; as when the Tympany or Drum groweth too loose by a violent noise or over moistness; and for this reason deaf people are more thick of hearing in Southernly weather, because the Membrane is relaxed by the moistness of the Air; or when the Tympany is over stretched or dried after a violent disease, long watching, or fasting; or when it is broken by violent motions, or eaten by a corroding humor: Somtimes blood cometh forth after a great hurt, and matter without hinderance to the Hearing, because the passage is between the bone and the Membrane. Or when any parts of the Ear, either originally; or by some outward cause, as stroak, fall, or the like, are put out of their Natural order. Moreover, a cold distemper useth to produce this disease, coming either from the cold Air, or very cold Water powred in, or over much use of stupefactive Medicines called Narcoticks.

'Tis very hard to distinguish al these causes by their proper Signs, but by Art, and conjecture thus:

If Deafness come from the distemper of the Brain, either other Sences suffer, or there appeared some peculiar Diseases in the Head, as head-ach, drouzines, Apoplexy, Lethargy, and the like.

The stoppage of the External Cavity of the Ears is discernable by the Eyes, if you look upon them in the Sun, for then it wil appear whether it be a tumor, or thick matter, or any other heterogeneal substance of another Nature which filleth the Cavity. As also the Patient will tell you if any thing fell into his Ears.

But if the internal Cavity be filled with a humor, we may conceive it to be flegm, if the Patient were formerly subject unto defluxions of that sort.

But that this comes from Choller, is known by some Chollerick Feaver that went before, or now possesseth him, or by some violent pain. But when it comes from blood, there is a heavy pain, and abundance of blood in the whol Body, and this happeneth often in critical disturbances.

The looseness and moistness of the Tympane is known by the causes preceding, which were moist, and distempered some other part: for it can scarce be, that moist causes should only affect that part, and no other.

You may also know the distention and driness of the Tympane by the driness of the whol Body, and by the drying causes aforegoing.

And

And for the breaking or corroding of the Tympane, you may know that if there were formerly any vehement Cauſes that could break or gnaw the ſame.

You muſt make your Prognoſtick thus:

Deafneſs by Birth, and of long continuance, if it be abſolute and total, is incurable; and that which is not abſolute if it be old, is never or hardly cured.

A Deafneſs from Choller or Blood which hapneth only in ſharp continuing Feavers, uſeth to be cured with theſe Feavers.

Thick Hearing, if it be not ſpeedily cured, endeth in perfect Deafneſs; witneſs *Galen*, 3. *de comp. med. ſec. loc. cap.* 3.

The Membrane of the Tympane being broken, or a ſcar left thereon, makes an incurable Deafneſs.

A Deafneſs encreaſing and decreaſing by degrees, is curable, for it ſignifieth that it comes from a movable humor, which ſometimes is more, ſometime leſs in quantity.

A Deafneſs coming from diſtemper of the Brain, is more eaſily cured than that which comes from a proper diſeaſe of the Ear.

As to the Cure: That Deafneſs which depends upon any Diſeaſe of the Brain, requireth no other Cure, than that which belongs to ſuch diſeaſes, which you may find in their ſeveral Chapters. That which comes from a Tumor, if it be hard and old, admitteth no Cure; but if it be hot, you may find the Cure for it in the Chapter of pain in the Ears. But if it come from matter gathered in the Ear, you may find the Cure in the laſt Chapter of this Treatiſe, where we ſhal ſpeak of thoſe things which preternaturally come forth of the Ear.

If this Diſeaſe comes of Drineſs, it muſt be cured by the way of *Rhaſis*, that is by moiſtning things, long ſleep, and waſhing of the Head with warm water; as alſo putting of moiſt things into the Ear, as Oyl of ſweet Almonds, and the like. If Deafneſs or thick Hearing come from any thing that is fallen into the Ear, that muſt be taken away with waſhing, ſhaking, or extraction: or if any Vermine are got into the Cavity of the Ear, they muſt either be taken forth, or killed there: they are waſhed forth by making the part moiſt and ſlippery, and enlarging it, with either Milk, the Oyl of ſweet Almonds, or ſome mollifying or relaxing Decoction: they are ſhaken forth by neeſing, for ſo by the force of the air the parts being moved, that which lieth in the paſſage of the Ear is excluded, and the ſooner if the way be firſt made ſlippery and enlarged with Medicines (as we ſaid) It is good alſo to hang down that ſide of the head, and to hop upon the leg on that ſide; by which way the Boyes after ſwimming get the Water out of their Ears. If theſe wil not do, you muſt endeavor to draw it forth with an Ear-picker, taking heed, leſt when you put it in, you thruſt that which you would draw forth, further in; therefore let the ſpoon of the Ear-picker be very thin that it may eaſier paſs by the thing in the Ear. Or you may lay hold of it, and take it out with a pair of Forcepts made on purpoſe, rough on both ſides within. And if this avail not, when the body is hard, as a nut or ſtone, it muſt be laid hold on with an Inſtrument and broken, and then the Ear muſt be waſhed as aforeſaid. If the Ear-picker will not enter, arm your probe with a little Cotton all over, and then dip it in Turpentine, or in ſome other clammy ſubſtance, and put it in the Ear that it may ſtick to that which is there, and ſtoppeth the Ear. The ſame may be done with a Wax Candle touched with Bird-lime; and if any of the Bird-lime ſtick in the Ear, you may afterwards take it out with the Ear-picker. There are ſome which put a hollow quil into the Ear, and draw out things with ſucking.

The worms in the Ears are enticed forth by laying to ſuch things as they love, as Milk with Sugar laid to the Ear in a ſponge, or eaſily put in; or a Fig turned inſide out; or the pap of a ſweet Apple, or Bacon, and turning the Ear to the Sun at that time; and eſpecially if Horſleeches get in, they are drawn forth by an Injection of blood. Fleas are drawn forth with Dogs hair; but if they be living they muſt be killed, and then they wil leſs hinder the hearing, and wil be drawn forth more eaſily: And they are killed with faſting ſpittle, or your own Urine dropt into the Ear.

Bitter things do ſooner kil thoſe Vermine, as the juyce of Wormwood, Centaury, or the Decoction of Aloes, or Beaſts Gall. Alſo ſharp things, as Vinegar, juyce of Onions, and the like.

And becauſe the uſual cauſe of Deafneſs is a cold diſtemper and a defluxion of moiſture to that part, you muſt labor moſt to oppoſe that.

But becauſe this defluxion comes originally from the Brain, therefore we muſt begin the Cure there, as in the cure of the cold diſtemper of the Brain; which a Prudent Phyſitian wil moderate according to the degrees and violence of the diſtemper.

The brief way of Cure is, firſt an attenuating Diet, moderately warm and drying, ſuch as is preſcribed in *Gutta ſerena*: and then avoiding of Southernly winds, by ſtopping the Ears; and vaporing nouriſhment, as Garlick and Onions; as alſo of things that beget thick and flegmy Humors, Firſt, Let a general Evacuation be made by Pills *Cephalick*, Purging Apozemes; then by Phlebotomy if need be; to which ad if the Diſeaſe be ſtubborn, a ſweating Diet; and then uſe particular Remedies that revel the defluxion, as Cauteries, Veſicatories, Neeſings, Maſticatories, Gargariſms: but.

Masticatories, or Chewings, are peculiarly necessary in this Disease, by reason of the passage which comes from the internal Ear to the Pallat, and throws out the excrements of the Ears.

And finally, When the Disease grows old, you must use ordinary Pills, Magistral Syrups, Cephalick Opiats, Powders and Caps to strengthen the head, and the like. All which are laid down in the Treatise of the Cold Distemper of the Brain.

In time of Diet, if the Disease be stubborn, Bags are good applyed to the Head after the sweating Potion is administred, as in the said Treatise is prescribed, not only to the fore part of the Head, but to the Ears also.

Brimstone and bituminous Baths are very proper in this Disease, with washing of the Head, for by them sweat is provoked, and the matter of defluxion is drawn out. But by washing of the Head, the Brain is strengthened and dried, and the humors fixed in the Ears are discussed. The way of using them is described by *Penotus*, and much commended, in these words: *There is nothing in the Cure of Deafness more prevalent after the use of an hundred Medicines, than that the Patient after his Body is first well purged, and then his Head. Wash his Head well in Brimstone Baths, thus: Let him wear a great cap reaching to his Eye-lids, and beneath his Ears, made of Sponges sewed together; let him sit under the cock or spout in the Bath, and let it run upon his Head; which Water the Sponges will suck up, and so keep the head in a continual heat; and so opening all the Sutures of the Head, and Commissures, it will take away all the vapors: or it will breath away the matter compacted in the Nerves, and the passages for Hearing, or so change it, that it will quickly be gone: It is good for him to sit so twice in a day for two hours, and presently after to sweat in his bed, and use a slender Diet of Juyces and Broth, and to beware of Wine except it be very weak.*

Then you must use Topicks, to discuss the matter fastened in the Ear, which may be thus applyed:

Take of *the Leaves of Organ, Wormwood, Penyroyal, wild Marjoram, Sage, Mints, Centaury the less, Mallows, and Marsh-mallows, of each one handful: the flowers of Chamomel, Melilot, Stœchas, and Rosemary, of each one pugil: Cinnamon and Cloves, of each half an ounce: Boyl these in equal parts of white Wine and Water: Foment the Ear with the straining hot in a sponge morning and evening.*

Of the same Decoction you may make a Fumigation into the Ear by a Funnel which must needs be excellent because the vapor arising from the hot Decoction must needs reach into the innermost parts of the Ears.

Instead of a Fomentation you may apply a hot loaf made with Caraway seeds, and cut in the middle.

Or take ordinary Bread from the Oven, and break off the lower crust, and dip it in Spirit of Wine, and let the Patient endure it at his Ears as hot as may be, that the vapor may be received in.

Bread made of Bran is better with Caraway seeds, Bay-berries, Juniper berries, and Nutmegs mixed before it be baked: then after it is a little baked, break it and apply it hot to the Ears.

If you desire a stronger Decoction for Fomentation and Fume, you may ad one or two drams of the Pulp of Coloquintida, and the root of white Hellebore. You may make this Decoction in white Wine alone, or with Vinegar, that it may pierce more, and discuss.

The Fume of Cloves may be taken with much profit to the Patient by a Funnel into the passage of the Ear when the Head is covered with a warm cloth.

After Fomentations and Fumes, you must put some liquor into the Ears, and then stop them with Muskified Cotton.

Take of *the Oyl of bitter Almonds, and Rue, of each one ounce: Mix them and put them hot into the Ears.* Or,

Take of *the Oyl of white Lillies, and Castor, of each one ounce: the Oyl of Dill, half an ounce: white Hellebore half a dram: Aqua vitæ one ounce. Boyl them in* Balneo Mariæ *till the Aqua vitæ be consumed; strain them for the use aforesaid.* Or,

Take of *Cypress Roots, Bay-berries, Annis and Cummin seed poudered, of each one dram: Pouder of Castor half a dram: Oyl of Rue as much as will be sufficient: Mix them and put them into a great hollow Onion; roast it, and strain out the Liquor to be dropped into the Ears.*

Chymical Oyls work most powertully; as Oyl of Rolemary, Marjoram, Sage, Fennel, Spike, Cloves, which are too strong to be used alone, therefore you must mix a very smal quantity of any of them with the Medicines mentioned; thus:

Take of *the Oyls aforesaid two ounces: Oyl of Spike, Fennel, Cloves, or the like, half a dram, or a dram: Mix them.*

There are also some Waters, which if dropped into the Ears do much good. Some Authors commend the Water of an Ash, which is made by putting one end of a green Ash into the fire, and taking the water out of the other end: this is best when deafness cometh of a hot cause, and you fear to use hot Medicines. But if not, then you may mix as much *Aqua vitæ* therewith. *Matthiolus* mixeth this

this Water with Juyces, and commends it highly, in theſe words: *We know that the Water which comes out of Aſh, when it is burnt, mixed with the Juyce of Sowbread, Squils, and Rue, in equal parts warmed together, to be excellent againſt Deafneſs, if it be dropped into the ſound Ear when the Patient goeth to bed, and lieth upon that Ear which is Deaf: but when both Ears are deaf, then into that which is leaſt affected.*

The Spirit of Wine wherein white Hellebore hath been infuſed, being dropped into the deaf Ear, is very efficacious.

Others commend the clarified juyce of Ivy mixed with ſtrong white Wine.

The Galls of Beaſts, as of Hares, Goats, Partridges, are much commended if they be uſed freſh, with an equal portion of Honey, and warmed in the ſhell of an Onion.

The fat dripping of an Eel is much uſed; Put a great Eel upon a Spit, and take the dripping upon Bay Leaves, and drop it warm into the Ears.

Zechius commends Ants Egs, in theſe words: *Ants Egs mixed with the Juyce of an Onion, and dropped into the Ear, do cure the oldeſt Deafneſs.*

The Blood of a yong Wolf, dropped hot into the Ears doth the ſame.

Laſtly, If the Diſeaſe be ſo ſtubborn that it will not yield to the Medicines preſcribed, it will not be amiſs to uſe the laſt Remedy which is preſcribed by *Fonſeca, conſult.* 58. *tom.* 2. namely, an Unction with Quick-ſilver, becauſe when Deafneſs cometh of the French Pox, it is ſo cured, and it may be when it comes otherwiſe; and the reaſon is, becauſe Quick-ſilver doth diſſolve and diſcuſs hard tumors, when they are gathered upon any part, and therefore when flegm is gathered in the Ears, which no other means can diſſolve, Quick-ſilver may diſſolve it. But this Remedy muſt not be tried but in a deſperate condition; for it is doubtful what the event will be, and the Unction with Quick-ſilver doth much weaken the Brain, and cauſe defluxions. So that ſome who have been cured of the Pox by Quick-ſilver, have after fallen deaf by defluxions; although ſometimes (as I ſaid) deafneſs coming of the French Pox is cured thereby, and Quick-ſilver rightly uſed after due Purgation doth no hurt to the Brain.

This you muſt alwaies obſerve in the uſe of Topicks, That you never put cold things, but warm, into the Ears, and you muſt not dreſs them till the old Medicine be taken out. And after dreſſing you muſt ſtop the Ear with Cotton Muſkified, for that only conduceth much to the Cure: as *Foreſtus* ſaith, *Obſ.* 15. *lib.* 12. in theſe words: *A woman of* Delf *after a long diſeaſe fell deaf, which after ſufficient purging abſtained from Phyſick: at length ſhe was perſwaded by an old woman to put a grain or two of Muſk into her Ears with a little Cotton, and ſo doing ſhe was wonderfully cured. I have cured many the ſame way whoſe Ears have run.*

Chap. 2. *Of Noiſe in the Ears.*

THe ſence of Hearing is hindered by noiſe in the Ears; for as the Eyes muſt be void of all colors that they may truly perceive the colors of all Objects, and when they have a preternatural color, as in the Jaundice, the ſight is depraved; ſo the Ears muſt have no ſound in themſelves, that they may more diſtinctly receive al other ſounds; and if there be any noiſe in them, the Hearing is depraved. This is called in Greek *Paracouſis*, in Latin *Obauditio*, vulgarly a noiſe in the Ears.

This comes from a preternatural motion of the Air which is naturally contained in the Ears; for as *Ariſtotle* ſaith, Though the natural Air in the Ear do move, yet the noiſe is not heard except you ſtop the Ears with the hollow of your hand, or the like, for then the hearing is more inward when the outward air is kept out. This is ſeen by Experience, when one ſtoppeth his Ears, and holds the handle of an Inſtrument in his teeth, the ſound wil be four times greater than when his Ears are open, for it paſſeth through the mouth, there is a Natural Motion of air in the Ear by the Spiritus *Acouſtico*, continually working. But if it be too violently moved, then there is a preternatural noiſe in the Ear which hindereth the hearing.

The Cauſes are many of this preternatural Motion, but chiefly a vapor or wind ſent from other parts into the Ear, or bred there; either coming from the whol body, or from ſome peculiar part.

In Feavers it comes from the whol body; whence *Hippocrates* ſaith in *Coacis*; A noiſe in the head coming in an acute Diſeaſe is deadly, for it cometh of wind ſent by the Arteries from the whol Body into the Ears; it uſeth to come chiefly in the beginning of a fit, and before bleeding. Wind is alſo ſent to the Ear from a peculiar part, namely, the Stomach, Liver, Spleen, Midriff, Womb, and the like; whence it comes to paſs, that in great Vomitings, in Hypochondriack Melancholly, and fits of the Mother, there is for the moſt part a noiſe in the Ears. Often there is a wind ſent from the head coming of a cold flegm, through want of heat to the Ears by the Veins and Arteries, and the Nerves of the fifth Conjugation, by which paſſages alſo vapors come from the inferior parts. Wind

Wind is bred in the Ear also, of flegm contained therein; whence it comes to pass that thick Hearing is alwaies accompanied with a noise in the head. For by the humor there is a stoppage, from whence comes deafness, and from the wind that proceeds from that humor, comes the noise.

There are other causes of this noise, as a great stroak upon the head, a great sound, Ulcers in the Ears, a hot distemper, weakness, and exquisite sence.

A stroak, by moving the Spirits in the Head too violently, causeth a noise.

A great sound doth violently move the natural Air.

And Ulcers by the heat of the matter boyling and working, make a noise; and by the Spirits gathered thither, and moving the Natural Air.

A hot distemper fills the inward Arteries of the Ear with much Spirit, whence a great beating noise proceedeth. Sometimes too much Spirit is sent by those Arteries into the Ears, and the Natural Air is thereby moved, from whence cometh a noise. And from this cause may come a continual noise for some months or yeers.

Weakness of hearing useth to make a noise in the Ears, as in sick people, because every sence debilitated is hurt by every violent or moderate object: so they who have weak sight, are offended by a small light.

And lastly, When the sence is most exquisite, as *Galen*, *lib.* 3. *de comp. med. sec. loc. cap.* 1. there will be a noise in the Ears, because even moderate objects are too vehement for it. Now this exquisite sence must be preternatural, for the exquisitness of sence cannot of its self produce a depraved action, but rather the more exquisite it is the less will it Err. This preternatural exquisitness of sence, comes from a hot distemper, ulcer, or the like: as parts inflamed do depravedly, that is paintully, feel moderate touchings. Or if the exquisitness of sence be Natural, you must suppose that the cause of the noise is Preternatural; for the vapor which is so little that it cannot be felt of dull sence, and so the action not be hurt, will be felt of him that hath exquisite sense, and will cause a noise; so that in one it is Preternatural, in another Natural.

There are divers sorts of sounds in the Ears, which proceed either from the quantity of the vapors as they are more or few, thinner or thicker, swift or slow in motion; for if the vapor be much, thick, and of quick motion, it wil make a noise like swift running water, or like a drum, or like some such Musical Instrument, or a rushing wind, or the like; but if it be little, thick, and move quick, the noise is like the falling of a Tree or House.

If it be much, thin, and swift in motion, it causeth a hissing, or is like falling of a gentle Water. If it be little, thin, and quick in motion, it causeth a tickling. If it be much, thick, and of slow motion, it makes a murmuring noise. If the matter be little, thick, and slow in motion, it makes a kind of whispering noise. If it be much, thin, and of slow motion, it causeth a hissing. And lastly, Because the degrees of thickness and thinness, of greatness and smalness, of swiftness and slowness, are infinite, therefore there are innumerable sorts of sounds in the Ears.

There is no certain knowledg of the causes aforesaid, as *Galen* teacheth 3. *de comp. med. sec. loc. c.* 1. but we may make conjecture from the precedent Causes and Circumstances.

We conjecture that the noise comes from wind, because sometimes it ceaseth, and returneth again; as also when the Patient hath formerly used to eat windy meat.

It cometh by consent from other parts, when there is some peculiar disease in them.

It appears to come from the Brain when pain and heaviness of the Head went before, and when other sences also are hurt.

That the fault is in the Ears, appears by a continual noise without any intermission.

We know that that Disease comes from a cold matter; if the Patient be better for the use of hot things, and if in time of health great noise be not much disturbance.

The difference of sounds above mentioned, do shew whether the disease comes of thick or thin, many or few vapors, it will easily appear by what hath been said.

When it comes from the weakness of the faculty of hearing; as from some Diseases aforegoing, of which the Patient is scarce recovered.

We conjecture that it comes from a hot distemper, and from an exquisite sence coming thereupon, when the Patient perceiveth a heat in his head about his Ears; when some hot Causes went before, and Medicines that discuss wind do encrease the disease: as also when the Patient in time of his health could not endure any great noise by reason of the exquisitness of sence.

As to the Prognostick: A new begun noise in the head is easily cured, but an old, hardly, and the more if it come from the French Pox. That which proceeds of a hot cause, is more easily cured than that which comes of a cold.

An old noise coming of flegm contained in the Ear, turneth to deafness; for when the matter is encreased, the passage of Hearing is stopped.

The Cure of this Disease is divers in respect of the diversity of Causes.

And

And first the Cure of Noyse in the Head coming from consent with other parts, depends upon the Cure of the Diseases of those parts, and must be taken from their proper Chapters.

But that which comes principally from the Ear Distempered, must have its proper Cure: And if it come of a cold Distemper, and thick Vapour, it wil be cured as in the Treatise of thickness of Hearing; for they are alike, and one is sometimes changed into the other, and sometimes they are complicated and joyned together; For Noyse in the Ears is the fore-runner of thick Hearing, and Deafness.

Therefore al Remedies both Universal and Particular, may be used here which we prescribed in the former Chapter of Deafness and thick Hearing.

If the Noyse come from an Ulcer in the Ear, it requireth no other Cure, than that which is proper for the Ulcer. And that shal be laid down in the following Chapter.

If it cometh from weakness of Sense as in them who are lately Recovered of some great Disease, it wil vanish of its self as the Body gathereth strength: yet you may drop some proper temperate Oyls sometimes into the Ears to mitigate, as Oyl of Chamomel, Dill, Sweet Almonds, and the like.

And Finally, If it come from a hot distemper and exquisite Sense, you must prescribe a Cooling and Moistning Diet; as also drop Cool things into the Ears, beginning with mild first, and after proceeding to stronger.

And first, Use the Decoction of Barley, Violets, Lettice, Water-Lillies, to which you may put a little Balm or Chamomel to make it pierce: which not prevailing, you must use the juyce of Lettice, Purslain, Henbane: *Galen* alloweth the Juyce of Poppy and Opium its self, but these must be used sparingly and with much Caution, left by weakning the natural heat of the part, the Hearing grow more dull.

Chap. 3. *Of Pain in the Ears.*

PAin of the Ears called *Otalgia* in Greek, is a violent Disease, both in respect of the part affected, namely, the inward Membrane which goeth about the Cavity of the Ear; as also by reason of the neerness of the Brain which often suffereth at the same time.

But since al pain comes from the solution of Continuity, al those things do cause pain in the Ears, which do dissolve the Continuity of those sensible parts which compass the Cavity of the Ear: the chief whereof are Distempers both without, and with, Matter, Wounds, Ulcers, or things fallen, or put into the Ears Externally.

A Cold Distemper doth sometimes cause pain in the Ears, and it comes from cold Winds, cold Baths, and other very cold Causes.

A Hot Distemper without Matter, seldom or never produceth a pain in the Ears, as a cold doth: For Cold is an Enemy to these Nervous and Membranous parts, but Heat is a Friend to them. Not can it cause any pain but that which is excessive, and wil cause a defluxion of Humors to the parts, and then it is not without Matter. For this Cause neither *Galen*, nor any of the ancient Greeks made mention of a Hot Distemper, although *Avicen* of al the Arabians have mentioned it.

Now the Cold Matter which causeth pain in the Ears is either flegm or water which comes from the Brain into them, or else wind coming from the Brain or the inferior parts.

But the Hot Matter, is either Choller that fals from the Veins and Arteries into those parts, or Blood, from whence cometh Inflamation.

The aforesaid Cause produceth an occult Solution of Continuity from whence cometh Pain. But manifest Solutions of Continuity, as Wounds and Ulcers, are more evident Causes of pain. Wounds come from external Punctures, Cuts, and Contusions. But Ulcers come either after Inflamation and breaking of an Impostume, or from sharp Humors that corrode the parts,

Finally, Things that get into the Ear outwardly, if they be hard, sharp, or any wayes piercing or biting, wil cause pain.

You may know al these Causes thus, If the Distemper be without Matter, there wil be no heavinesse, distention, or tumor: And you may know that the Distemper is Cold, when cold Causes have preceded, as travel in Winter, when the pain increaseth in cold weather, or with cold Medicines and decreaseth with hot: but you may know a hot distemper by hot causes preceding, as being long in the Sun, or heat, and when hot Medicines hurt, and cold do profit.

If the Pain come from flegm, there wil be a heavinesse in the Ear, and the Head; as also a Rhewm wil fal upon some other part, besides cold Causes did precede, as cold and Northerly weather, cold meats; or it is winter and the Patient is old, and the like.

If

If it come from Wind there wil be a great pain without weight or heavineſs, not conſtant, but intermitting and with noyſe.

That it comes from Water, the Patient wil have other Diſeaſes from the ſame, as ſharp and thin deſluctions upon the Teeth, Eyes, Ears, Breaſt, and other parts; and Evacuation of ſerous Matter by Vomit, Stool, Urine, or Sweat.

If it come from a Chollerick Humor the pain wil be ſharp and pricking, and there wil be ſenſible heat; it wil be mitigated with cold things, and Choller wil ſometimes come forth of the heat; the Body is of a Chollerick temper, the Party yong, the Weather hot, and Diet alſo with the like, by which the Patient is often diſtempered

An Inflamation is known by a great beating pain, with great heat and redneſs about the Cheeks and Temples, to which there is joyned a continual violent Feaver; ſometimes Doting, Swooning, Convulſion, and coldneſs of the extream parts.

A Wound is known by the blood which wil come forth of the Ear, but an Ulcer by the filth, or matter; but becauſe ſometimes there is a deſluxion of filth from the Brain by the Ears, we muſt diſtinguiſh, for it if comes from the Brain; there went before it a Head-ach and other ſigns of an Impoſtume in the Brain: And firſt the matter is ſent forth in great abundance and after by degrees while it is all ſpent. From an Impoſthume in the Ear may come plenty of Matter, but then there went ſigns before of an Inflamation there, and afterward followed an Ulcer, which you may know whether it came from an Impoſthume or a Deſluxion of ſharp Humors by these ſigns following; There is a conſtant Flux of a little filth or matter by degrees; there is felt a pain burning and ſhooting in the Ear, eſpecially if it be picked. Moreover, We may conjecture of the Difference of the Ulcers, For if it be in the Bone, it is known by the thin Matter yellowiſh, and by the long continuance of the Diſeaſe: If it be deep, you ſhal know it by much Matter: If it be clean, by the laudible Matter: If it be foul, by the thickneſs and plenty: If it be virulent, by the thinneſs: If putrid, by the ſtink of it: If it be corroding, by blood following: If fiſtulous, from the oldneſs of the Ulcer, the virulency of the Matter, the callolity and hardneſs of the fleſh.

Finally, If there be any thing fallen into the Ear, either it may be ſeen, or related by the Patient.

The Prognoſtick of pain in the Ears is divers, according to the diverſity of the Cauſes. That which comes from a bare diſtemper is eaſily cured. That which comes from a cold flegmy ſerous, or windy matter, is not very dangerous, but uſeth to continue long. But that which cometh from hot humors, and eſpecially ſuch as cauſe inflamation, is very dangerous, for the Brain being nigh muſt needs conſent, and be alſo affected; from whence Deliriums, and Convulſions uſe to proceed. In this Diſeaſe yong men are in moſt danger: for they being of a hot temper, and their blood hot, the inflamation is greater; and this diſſolveth the natural heat of the Brain, and killeth the Patient: Hence it is that they die for the moſt part within ſeven dayes. But old men who are colder, have leſs inflamation, and ſo are in leſs danger.

Ulcers in the Ears are hard to be cured, becauſe the Brain being nigh, doth ſend its excrements to thoſe parts: But thoſe which follow an Impoſthume are eaſier cured, eſpecially if the matter be laudible. But where the matter is virulent, ſtinking, or the like, it is difficult, eſpecially if the Ulcer be cavous, and the bone foul.

The Cure, as the Diagnoſtick and Prognoſtick, is to be varied according to the Cauſe.

For if it comes from a bare cold diſtemper, hot Medicines applied to the Ears are ſufficient, ſuch as are in the cure of Deafneſs, eſpecially Fomentations and Fumes, as alſo the warm Oyls there deſcribed. But when a hot diſtemper comes without matter, it may be cured with Topicks, which are cooling, which we will ſhew afterwards, and eſpecially with the white of an Egg beaten with Breaſt milk, and put into the Ear.

If it come from a cold diſtemper with matter, as flegm, water, or wind, you muſt uſe the Medicines preſcribed in the cure of Deafneſs. Firſt, Purge the whol Body, then correct the diſtemper of the Brain, and apply warm Topicks that diſcuſs unto the Ears.

If it come from a hot diſtemper with Choller, which is of long continuance, or comes by fits. Firſt revel the humor that floweth to the part by Phlebotomy, by which the hot diſtemper of the whol Body with the Liver, in which Choller is made, is amended. Then purge the Humor with proper Medicines. You may amend the hot diſtemper of the Liver with Juleps or cooling Broths, with Whey of Goats milk, with ſharp Vitriolat, Mineral Waters, with hot Baths, and the like. And laſtly, All things are proper for it which are preſcribed in the Cure of the Head from a hot cauſe. But you may uſe cooling Topicks and Anodines that take away pain, which we ſhall ſhew afterwards concerning the Inflamation.

Inflamation of the Ear is cured firſt by blood-letting, according to the quantity of the humor, for revulſion of it from the Ears, firſt having given an emollient and cooling Clyſter: This muſt be done in great quantity, at divers times, for the greatneſs and violence of the Diſeaſe requires it. You muſt

open

open the Head Vein on that ſide the Ear is that is pained. If you think it comes from ſtoppage of Terms or Hemorrhoids, open the lower Veins, firſt having let blood in the Arm. When the cauſe is not from thence, it will do good for revulſion to apply Leeches.

Alſo you make good Revulſions by Frictions and Ligatures of the Arms and Thighs, by cupping the Shoulders and Back with Scarrification, or without.

Somtimes for Derivation it is good to apply Cupping glaſſes behind the Ears, with Scarrification; as *Zacutus Lucitanus* teacheth, *Obſer.* 64. *lib.* 1. *Praxis Admirandæ*, in theſe words. The Divine old man in his ſecond Book, Epid. Sect. 6. towards the end, ſaith thus: For pain in the Ear, clap on a Cupping glaſs. This worthy ſaying gave much help to a poor man which was in pain; and when al things failed, and he grew weak with watching, and mad with a continual Feaver, being ready to depart; having opened a Vein, and applied Cupping glaſſes to the Shoulders and Neck, and taken revelling Clyſters, and purging, and the like; as alſo Anodines into his Ear without any profit, he was cured only with a Cupping glaſs with Scarification applied by the Glandles of the Ears, which drew much blood, and took away the inflamation.

The ſame *Zacutus Lucitanus* in *Praxi ad Hiſtorias*, commends four Horſ-leeches applied behind the Ears, which he ſaith gave much eaſe to a yong man which had a violent inflamation in his Ears.

The cutting of the Arteries in the Temples of the Forehead, doth produce rare effects for the appeaſing of the greateſt pain in the Ears, by taking away the hot and windy blood which produced that grievous ſymptome. The way of doing it, is ſet down by us, in the Cure of the hot Head-ach.

A Purge againſt Choller is good, for ſo the Choller mixed with Blood, which by it is made ſo fluid, is drawn down, and ſent forth.

Afterwards the whol maſs of humors is to be tempered with cooling Juleps, made of the Decoction of Lettice, Purſlain, Plantane, Sorrel, and the like, with Syrup of Lemmons, Pomegranats, or wild Poppies.

In the mean while, theſe Medicines are given; you muſt alwaies apply Topicks, which muſt alwaies be Anodine, by reaſon of the vehemency of the pain, the mitigation whereof muſt be your chief intent; and this will be more rationally done, if in the beginning and the encreaſe of the Diſeaſe, you mix things that do gently repel; but in the ſtate and declination, things that reſolve, ſuch as theſe following:

Take of *new Breaſt-milk two ounces*: *the white of an Egg beaten to Water half an ounce*: *drop theſe mixed together, warm into the Ear.*

Or Milk alone ſquirted into the Ear from the Breaſt; this doth much aſſwage.

Take *Plantane and Nightſhade, of each one handful*: *the flowers of Chamomel and Melilot, of each one pugil*: *Make a Decoction, and let the Patient receive the fume thereof into his Ear by a Funnel.*

Take of *the Oyl of Water-lillies and Roſes, of each one ounce*: *Mix them, and drop thereof into the Ear; after the fume.*

* Sows infuſed in the aforeſaid Oyls and ſtrained, are the beſt Anodines; for theſe Creatures have eſpecial force to appeaſe pain, and therefore are uſed in the toothach, hemorrhoids, and the like; or take them alive, and boyl them with Water in the Oyls til the Water be conſumed.

If the burning be very violently, you may mix cooling Juyces with the aforeſaid Oyls, thus:

Take of *the Oyl of Water-lillies, and Roſes, of each one ounce*: *the Juyce of Nightſhade and Plantane, of each half an ounce*: *Mix them, and drop thereof into the Ear.*

Roſe Vinegar is uſed of ſome Practitioners made of two parts of Oyl of Roſes, and one part of Vinegar, which ought to be ſuſpected, as al ſtrong repelling Medicines; for there wil be danger, leſt the humor flowing thither ſhould return to the Brain; and it is a general Precept alwaies to be obſerved. That you never lay repelling Medicines to inflamations which are neer unto noble parts: but you may mix gentle Repellers with Anodines and Relaxers; for ſo they wil moderately repreſs the Deſluxion, nor will they drive it far back: Such are the afore mentioned, to which you may ad this following:

Take of *the Oyl of Roſes, and Water-lillies, of each one ounce and an half*: *Roſe and Plantane Water, of each half an ounce*: *Breaſt-milk one ounce*: *the Mucilage of the Seeds of Fleabane and Quinces drawn with Roſe water, of each ſix drams*: *mix them. Put ſome drops thereof warm into the Ears, and bind clouts dipped in the ſame Liquor about the Ears.*

In vehement pain we are conſtrained to fly to Narcoticks, or Stupifactives; but you muſt uſe them ſeldom, and with much care, becauſe they offend the Brain. *Galen* ſaith, 3. de comp. med. ſec. loc. *I knew one, who only with the uſe of Opium, took away both ſpeech and ſence from his Patient, that he could be cured neither with Opobalſam, nor any other hot Medicine injected.* Therefore if neceſſity conſtrain, thus they are to be preſcribed:

Take of *Oyl of Poppy-ſeeds one ounce and an half*: *Camphire and Opium of each two grains*: *mix them, and drop them into the Ear.*

Take

* *Called a Chiſlip, or Kitchin bob, with many feet which being touched gathereth it ſelf round like a ball.*

Take of *the Oyl of sweet Almonds two ounces*: *the Juyce of Mallows half an ounce*: *Myrrh half a dram*: *Saffron half a scruple*: *Opium three or four grains*: *mix them for the use aforementioned.*

In applying of Topicks, the Rule of *Galen* is diligently to be observed, which is in *lib.* 3. *comp. medic. sec. loc. cap.* 1. that an inflamed Ear be not touched, but let the Medicines be injected by an instrument for to see into the Ear, or a Probe armed with lint and dipt in the Medicines. Then that you ask the Patient if he feel it warm, and if he can endure it hotter? and let it be used so hot as he can suffer: You must put the Probe so armed gently into the Hole of the ear that the Medicine may soak from it into the ear, you must do thus till the passage of the ear be filled with the Medicine, then you must dip lint in the same Medicine, and lay it to the Hole of the ear, and round about.

In the state of the Disease you must mix gently resolving Oyls with Anodines, thus.

Take of *Oyl of Chamomel, sweet Almonds and Violets, of each one ounce*: *the Oyl of Lillies half an ounce*: *Mix them.*

But these Fomentations and Fumigations which are made of the following Decoction, do resolve more powerfully.

Take of *Marsh-Mallow-Roots one ounce*: *Mallows, Nightshade, St. Johns-Wort, of each one handful*: *Linseed half an ounce*: *the seeds of Mallows, Marsh Mallows, and white Poppies, of each two drams*: *the Flowers of Chamomel, Dill, and Roses, of each one pugil*: *make a Decoction in Water and Milk for a Fomentation and Fumigation*: *Water taken out of Ashen sticks, being dropt into the Ears easeth pain and dissolveth the cause of it. You must put green Ashen sticks in to the fire, and take the Water that comes from both ends.*

If the Tumor cannot be dissolved but it seems to tend to suppuration, which you may perceive by the encrease of pain, by greater Pulsation, and a stronger Feaver.

You must help the motion of Nature, and apply this following Cataplasm.

Take the *faeces of the former Decoction made for a Fomentation and Fumigation*: *and put to them of Ducks and Hens-grease, Marrow of Veal, and the Mucilage of Fleabane and Fœnugreek-seeds, of each one ounce*: *the Oyl of Chamomel and Violets, of each one ounce*: *Fresh Butter one ounce and an half*: *Saffron half a dram*: *Make a Cataplasm.*

A Cataplasm of Crums of Bread is also very good; for it asswageth pains and furthers suppuration gently without inflamation: and therefore it is very proper in al Phlegmous or hot Tumors: you must make it thus.

Take of *the Crums of white Bread one pound*: *boyl it in Goats Milk to a Pultis, then ad of the two Yolks of Eggs, the Oyl of Roses two ounces*: *Saffron one scruple*: *Make a Cataplasm.*

The Cataplasm made of an Onyon, is much commended of *Victorius Faventinus.* Made thus.

Take *one Onyon*: *Fresh Butter two ounces*: *Oyl of Chamomel and Roses, of each one ounce*: *Saffron one scruple*: *Make a Cataplasm, apply it warm.*

The Suppuration being made, the Impostume breaketh, and the Matter comes forth either by the Membrane of the Ear made thin, or else corroded, and then the Patient must lie upon the Ear that is pained, that the quittour may come forth; and you must drop such things into it as may clense.

Take of *the Decoction of Barley four ounces*: *Honey of Roses one ounce*: *drop this warm into the Ears at several times.*

If an Ulcer come from sharpness of Matter, you must have a peculiar way of Cure; such as is used to an Ulcer caused from a Defluxion of Humors.

And first, because according to the opinion of *Galen*, 4. *de comp. Med. sec. loc.* we may not apply Topicks to any part, except the whol Body be first often purged: we must use ordinary Evacuations by Bleeding and Purging according to the nature and temper of the Patient; and these must be repeated through the whol time of Cure, as often as need requireth.

Then we must apply Drying and Clensing Topicks or Medicines to the place affected, beginning with the mildest first.

The Examples of which are these.

Take of *the best Honey and old white Wine of each three ounces*: *boyl them, and skim them*: *drop of this into the Ear, and stop it with Cotton dipt in the same.*

After that it may be stronger; mix the juyce of Horehound, Smallage, Wormwood, and the lesser Centaury, or of Sowbread with Honey: boyl them gently, and drop thereof into the Ear.

Or,

Take of *the Juyce of Beets one ounce*: *Horehound half an ounce*: *the best Honey six drams*: *boyl these a little, then ad of the Syrup of Wormwood two drams*: *Mix them.*

You

You may make a ſtronger Medicine thus.

Take of *the Juyce of Sowbread one ounce*: *Myrrh one dram*: *Saffron half a ſcruple*: *Frankinſence one ſcruple*: *Verdegreece half a ſcruple*: *old Wine one ounce and an half*: *boyl them gently till the Wine be conſumed*: *drop of this twice or thrice in a day into the Ear.*

Obſerve, Before you drop any liquor into the Ear, you waſh the ear in warm Hydromel, or water and Honey, and wipe it wel with lint upon a Probe armed.

When the Ulcer is ſufficiently Cleanſed, you muſt come to Cicatrizing. Thus.

Take of *Round Birthwort*, *Pomegranate peels*, *and Galls*, *of each half an ounce*: *boyl them in equal parts of Wine and Smiths-forge-water*, *to half a pint*, *when it is ſtrained*, *ad to it of the juyce of Plantane and Poligonum*, *of each one ounce*: *Honey of Roſes two drams*: *mix them*, *and drop of this into the Ear.* Or,

Take of *Frankinſence and Myrrh of each one dram*: *Gum of Juniper half a dram*: *Sarcocol*, *and Labdanum*, *of each one ſcruple*: *Make a Pouder of them and mix it with Turpentine into Balls*, *which you muſt lay upon the Coals ſo that the Patient may take the Fume into his Ear by a funnel.*

Or, You may mix that Pouder with ſome of the aforeſaid Juyces, and drop thereof into the Ear.

Or, You may mix burnt Allum with white Wine, for this hath a very great Drying quality.

If the Ulcer be ſtubborn and old, it is nouriſhed by a Defluxion, which you muſt labor to remove by uſual Purges, Diets of Lignum vitæ and Saria, by Errhins, Maſticatories, Cauteries, and other Remedies that wil divert.

Then muſt you uſe ſtronger Medicines to dry the Ulcer; ſuch as we preſcribed of juyce of Sowbread, Myrrh, and Verdegreece.

Or this following Medicine of *Valeſcus*, with which he ſaith that he Cured a Prieſt that had an Ulcer in his Ear from the eighth yeer of his age.

Take of *Honey ten drams*: *Vinegar eight drams*: *boyl them*: *take off the ſcum*, *and put to one dram of Verdegreece*: *Mix them.*

Theſe muſt be dropt morning and evening into the Ear, after it is waſhed with this Decoction.

Take of *Wormwood*, *Marſh Mallows and Agrimony*, *of each one handful*: *boyl them in equal parts of water and white Wine put to it towards the concluſion*, *to half a pint*: *Diſſolve in the ſtrained Liquor Oximel ſimple one ounce and an half*: *Allum poudered one dram*: *waſh the ear with this warmed*, *and after dry it with an armed Probe.*

If the pain come from ſharp Medicines, drop in the Oyl of ſweet or bitter Almonds with Myrrh, Aloes, and Saffron: and if it be violent, mix a little Opium, or drop in the Oyl made of yolks of Eggs in a leaden Mortar.

If the Ulcer be very foul, you muſt uſe *Ægyptiacum*, Diſſolved in the aforeſaid Juyces.

Laſtly, *Galen*, *Ætius*, and Others, both Greeks and Arabians do much Commend the Ruſt of Iron for the drying of Ulcers in the Ear.

Galen, 3. *de comp. med. ſec. loc.* uſeth Scales of Iron ground or boyled with the ſharpeſt Vinegar.

Hollerius in his Comment upon that Chapter doth preſer the Arrabian Preparation, for they firſt grind the Iron with Vinegar, then they dry it; thus they do ſeven times, then they make it very fine, and boyl it long with the beſt Vinegar, while it is as thick as Honey, and then they dry it, and uſe it with Honey or other liquors.

If the Pain of the Ear come from any thing fallen into it, as a little ſtone, Cherry-ſtone, or the like; which wil be very grievous, and ſomtimes cauſe Convulſions, Inflamations, and Death; as *Matthæus de Gradi* ſaith of a Boy of ten yeers had a Cherry-ſtone in his ear, and through the ignorance of the Chirurgeon, he endured great pain, and after died.

You muſt draw out theſe things thus.

Firſt, You may try with an Ear-picker which you muſt carefully attempt, leſt your inſtrument force it further, which often hapeneth.

Therefore if that which is fallen into the ear do fill the hole. it is better to abſtain from the uſe of the Ear-picker, and try theſe Remedies.

Paulus uſeth to dip his armed Ear-picker in Rozin, Turpentine, Gum, or the like; and to put it into the Ear, turning of it till you get it out by degrees.

If thus you cannot, put hot Oyl continually into the Ear to relax the part, and make the thing contained ſlippery, ſo it will eaſier come forth.

Use Neesings with the mouth and nostrils shut, for so it will be forced out of the Ears.

These are to be followed till the parry be freed; for if it continue long in the Ear, it will be inflamed, and then the thing will be more difficult and dangerous to be drawn forth.

Arculanus upon *Rhasir*, affirmeth that the Head of a Lizard applied to the Ear, will draw out any thing, and confirmeth it by his own Experience, in these words: *In my Experiences for drawing things out of the Ear, this is one; Tie a live Lizard, or one lately dead, with his head to the Ear, for the space of three hours, and when you take it away, you shall find the thing sticking to the head of the Lizard: and this is good for the extraction of any thing wheresoever it is fastened.*

Lastly, If the former Medicines do not prevail, you must come to the use of a Chyrurgical Instrument, which is at large elegantly declared by *Fabricius Hildanus*, Cent. 1. Observ. 4, 5, 6. and by *Aquapendent*, in his Chyrurgical Operations, in his Chapter of the Chyrurgery for the Ears.

Sometimes Fleas get into the Ears, and moving themselves in the Cavity, bring much disturbance. For the taking out of them, make a little ball of dogs hair, and put it into the Ear, so will the Flea by reason of its affection to dogs come into it. Or make a tent, and put it often into the Ear, with a little Turpentine.

Oftentimes through swimming, or washing of the Head, water getteth into the Ears, which is very troublesom: this is shaken forth by hopping on the contrary foot, and holding the Ear down. If this will not do, you must suck it out with a reed, or a pair of bellows. If you arm the pipe with tow to make it stick close, and keep the air out of the Ear, it will be better.

Galen and *Aetius* continue in powring in of Oyl, suppling the Ear, and then wiping it with wool; and after using Oyl for divers times.

And lastly, Put soft and dry Spunge into the Ear often, till it come out dry.

CHAP. IV.

Of those things which come forth of the Cavities of the Ears preternaturally.

MAny Preternatural things come out of the Ears, which we will set down particularly with their Remedies.

First, After an Impostume is broken which came after an Inflamation, or from an Ulcer coming from sharp Humors, filth, or matter, useth to come forth; whose Cure is laid down in the former Chapter.

Sometimes blood comes out of the Ears; as in wounds of the head, or blows by which the Veins of the Ears are broken or rent. If this flux be small, it is not to be stopt, because then being retained, it would cause Inflamation; but if it be great, or of long continuance, it must be stopt by bleeding in the Arm, and Cupping glasses applied to the Shoulders with Scarification. Then you must drop cooling and binding things in, as juyce of Plantane, Polygonum, or the Decoction of Madder, red Roses, Mastich, Acacia, Hypocistis, Pomegranate flowers, Sumach, and the like, made in Wine and Vinegar, or Smiths Forge-water.

Sometimes Water comes out of the Brain into the Ears, as in children, which must not be stopt, for if it be suddenly stopt, it causeth the Falling-sickness, or some grievous Disease of the Brain; for Nature casts forth Excrements by that way, though not proper; and the great moistness in childrens heads is not only purged by the ordinary waies ordained by Nature, as the Nostrils and Pallat, but also by the Ears, Eyes, and the whol Head, from whence it becomes sore. But when this Evacuation is symptomatical, and the humor begins to ulcerate the Ears, and hurt the hearing, we will lay down a convenient Method for the Cure.

And first, The abounding humors in the Head are to be purged with gentle Medicines often repeated, and to be derived by Vesicatories to the Neck, and by a Caustick.

Then you must cleanse the Ears, and dry them with this Medicine:

Take of *the Juyce of Agrimony, and Wormwood, of each four ounces: white Wine, and Honey of Roses, of each one ounce: Boyl them a little, and drop into the Ear after it is wiped; then stop it with Cotton dipped in the same.*

Take of *white Wine four ounces: the Juyce of Agrimony, Wormwood, and Centaury the less, of each one ounce: Boyl them, and drop into the Ear.*

In elder people, if water floweth out of the Ears long, you must purge the whol Body and the Brain with a Cephalick Apozeme that is purging; then you must consume the superfluous Humidity

dity with a Sudorifick Diet; derive it with Veſicatories, Cauteries, and Cupping glaſſes; and uſe other Remedies which are ſet down in the Cure of the Cold Diſtemper of the Brain.

Laſtly, There are Worms ſomtimes in the Ears coming out of filthy Ulcers, which are cured with the Ulcer; but becauſe the Ulcer cannot be ſpeedily cured, you muſt therefore endeavor the Cure of the Worms.

Take this one Medicine as an Example:

Take of *the Oyl of bitter Almonds: the Juyce of Smallage, and the leſs Centaury, of each two ounces: Vinegar two drams. Boyl them a little; then ad of Mirrh, and Aloes, of each one ſcruple. Mix them, and drop into the Ear.*

If you will make it ſtronger, put half a ſcruple of Coloquintida thereunto.

The End of the Third Book.

THE FOURTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diſeaſes of the Noſtrils.

The PREFACE.

THe *Noſtrils uſe to have many Affects which are referred either to the Series, or Method of Diſeaſes, or of Symptoms. Theſe are Diſeaſes, An* Ulcer, Ozæna, Sarcoma, *and* Polypus. *Theſe are Symptoms, The loſs of* Smelling, Stinking *in the* Noſe, *the* Coryza *or* Poſe, Sneezing, Bleeding. *Therefore this* Fourth Book *ſhall be referred to Seven Heads: The Firſt Chapter is concerning the* Ulcer *of the Noſtrils, and* Ozæna. *The Second of* Sarcoma *and* Polypus. *The Third of the loſs of* Smelling. *The Fourth of the* Stink *of the* Noſe. *The Fifth of* Coryza. *The Sixth of* Neezing. *The Seventh of* Bleeding *at the* Noſe.

Chap. 1. *Of the Ulcer of the Noſtrils, and* Ozæna.

THe Ulcer of the Noſtrils is either New and Simple, or Old and Stinking; This laſt is called *Ozæna.*

The New Ulcer which is Simple, either comes of External Cauſe, as a Wound, or Contuſion: Or, from an Internal Cauſe, as the ſharpneſs of Humors, flowing to the part; & eſpecially ſalt Flegm coming from the Brain.

Ozæna cometh from a ſimple Ulcer neglected, or from the Malignity and Acrimony of the Cauſe by which it becometh putrid and filthy.

The Diagnoſis of both is this; a Simple Ulcer Cauſeth little or no pain, but only ſends forth blood often, eſpecially when it is meddled or tampered withal; otherwiſe is is covered with a dry black Scab which ſometimes is caſt forth. But *Ozæna* Cauſeth great pain, the Scab is fouler; as alſo Stinking Matter cometh from it. The Patient is not only annoyed therewith, but noyſom unto others: and the Greeks cal it *Ozæna* from the ſtink. Often this Ulcer creepeth, or either eateth the Griſtle of the Noſe, or the parts between, or the tender Bones thereof, and putrifieth them, and ſome-

ſometimes deſtroyeth the Pallat, eſpecially if it turn to a Cancer, or if it come from the French Pox as it often doth, or from an *Elephantiaſis*.

As for the Prognoſtick, Ulcers that are New, and come from a gentle Humor that hath little Malignity are eaſily Cured: but Old Ulcers that are ſordid and putrid are hardly Cured, and if they turn into a Cancer, never. If they come of the French Pox, or Elephantiaſis, they cannot be Cured except thoſe Diſeaſes be firſt Cured.

For the Cure: Firſt you muſt appoint a good Diet, which may aſſwage the ſharpneſs of the Humors, and hinder the breeding of them; then you muſt Evacuate the whole Body by Bleeding, convenient Purging, and by Cupping Glaſſes with Scarrification: And if the Defluxion of Humors into the Noſtrils be very ſtubborn, it muſt be derived by Veſicatories and Cauſticks applied to the hinder parts, and then you muſt give things to ſtrengthen the head.

After Univerſal Remedies you muſt come to Topicks. And firſt take notice if the Ulcers be Cruſty and Hard. and before you proceed, take away that with a little warm water and freſh Butter, or Gooſe greaſe, or Hens greaſe, Oyl of ſweet Almonds, or the like.

The Scabs being mollified, muſt not preſently be taken off by force, leſt the Ulcer be exaſperated with a Defluxion; but you muſt expect til they fal off of their own accord by blowing the noſtrils; or at laſt you may take them gently off with a little Oyl of ſweet Almonds upon the tip of your finger.

After the Scab is off you muſt uſe aſtringent and drying Remedies.

In a Simple Ulcer it is ſufficient to waſh it with Barley water, and Honey of Roſes, and then to anoint it with Ointment of Tutty, or with the white Ointment of Rhaſis, or the Oyl of yolks of Egs which wil be of more force if it be made in a Leaden Mortar.

But for the Cure of *Ozæna*, you muſt prepare theſe following Medicines.

Take of *Barley one pugil: Agrimony, Plantane, Wormwood, and the leſſer Centaury, of each one handful: Red Roſes half a pugil: boyl them in Forge-water: in the ſtraining diſſolve of Honey of Roſes four ounces: Make an Errhine to be often ſnuffed into the Noſtrils.*

After it is ſomwhat clean, you muſt uſe this following Decoction.

Take of *the Flowers and Rinds of Pomegranates of each two ounces: Plantane, Horſtaile, Fleabane, and Rupture-wort, of each one handful: the Roots of Biſtort, or Snakeweed, one ounce: Crude Allum, one ounce and an half: Make a Decoction.*

Allum Water is alſo good; as alſo thoſe Remedies which ſhal after be preſcribed for the Cure of *Polypus*, in the following Chapter.

Ægyptiacum Diſſolved in Barley Water is good for the ſame.

After this make Ointments which may Aſtring or Bind, Cleanſe, and Dry exceedingly, as of *Pompholygos*, with Allum *Chalcitis*, and the Pomegranate Peels.

Or, This following.

Take of *Oyl Olive, half an ounce: Pomegranate Peels, and Flowers, of each three drams: Mirrh, Allum, Labdanum, of each two drams: Chalcitis, Aloes, Frankinſence, of each one dram: Oyl of Roſes and Myrtles, of each two ounces: Red Wax as much as is ſufficient: Make an Ointment, which apply to the Ulcer; or diſſolve it in Wine, Plantane, Roſe or Myrtle-water, which often ſnuff into the Noſe, the mouth being filled with Water.*

If theſe things prevail not, waſh the Ulcer with ſublimate Water, twice, thrice, or four times in a day, for it dryeth very much, and cleanſeth without any pain or biting: You muſt make it thus.

Take of *Plantane water four ounces: Crude, Sublimate Poudered, twelve grains: boyl them in a Glaſs to the Conſumption of half, you may encreaſe or diminiſh the quantity of the Sublimate as you deſire to have it ſtronger or weaker.*

When the Ulcer is wel Cleanſed, you muſt proceed to the Drying of it up: for which purpoſe the Pouder of Red Roſes blown into it, is very good.

Rondeletius witneſſeth that there is nothing more efficacious for the drying of Ulcers after ſufficient cleanſing than a Fumigation, becauſet it entreth deep into the parts, and drieth, and he ſaith it muſt be made of powerful dryers, as of Orpiment, and Cinnaber, to which you muſt ad ſome ſweet things, from whence there will ariſe a fume or ſmoak to dry the Ulcer; as Mirrh, Frankinſence, Maſtich, Benjamin, and the like, which may be brought into this form:

Take of *the beſt Labdanum, Hypociſtis, Maſtich, and Mirrh, of each three drams: red Storax, and Styrax calamita, Frankinſence bark, Sandarach, & Orpine, of each two drams. Make them up with Turpentine into Troches, with which let the Patient be fumed morning and evening in his Chamber.*

It is excellent alſo to burn Candles of red Wax; for the ſmoak of them will powerfully dry the

Ulcers

Ulcers in the Nose, especially if the Patient be kept in a close room. And *Rondeletius* saith, That we may perceive that the smoak of a Candle doth affect us by receiving it: for if at any time we sit long in a little Study by Candle light, our spittle and snot will appear afterwards black: And by this means he saith he cured an Ulcer, which neither Italian nor French Chyrurgeons could Cure.

Chap. 2. *Of Sarcoma, and Polypus.*

SOmetimes there is not only an Ulcer, but an excrescency of flesh in the Nose, which maketh preternatural Humors called *Polypus* and *Sarcoma*.

Sarcoma is flesh growing in the Nostrils without any certain shape, but like the proud flesh of an Ulcer.

But *Polypus* is an Excrescency of flesh growing with smal roots, and spreading and hanging down to the lower part of the Nose, like the fish called *Polypus*, from whence it hath the name. *Rhasis* calleth it the Hemorrhoids of the Nose, because like those of the Fundament. This flesh is soft, sometimes white, sometimes red and blew, and if it grow big, it hangeth out of the Nose: but if it grow in the highest part of the Nose, it sometimes hangeth down to the Pallat, and stops the common passages, and may easily be seen behind the Uvula. In Southernly weather, and at the full Moon, it is much swelled. But in a Northernly dry time, and at new Moon, it is less. It differs from Sarcoma in this: Sarcoma groweth chiefly in the lowest part of the Nose, where it is fleshy; but Polypus grows in the highest part by the Root of the Nose.

The Cause of both, is a gross slimy humor coming from the Brain mixed with blood; sometimes with melancholly, and then you may fear a Cancer. Sarcoma often cometh from the superfluous nourishment of the Nose turned into proud flesh, and therefore is more easily cured.

The knowledg of these Diseases is eatie by what hath been said, they being apparent to the Eyes.

The Prognostick is thus made:

A Sarcoma is easily cured for the most part; but Polypus hardly. But that which is soft, white, or red, or white and red, is more easily cured; but that which is hard and livid or blew, is difficultly cured, and is like to be a Cancer. Also that Polipus which groweth low, or in the middle of the nostril, is more curable than that which is rooted high, because Remedies will not so well reach it.

Both are cured with the same Medicines, which are to be so ordered that the superfluous flesh may be taken away; but first you must remove the antecedent Cause, that is, the slimy humor which cometh from the Head, which you must do by a drying and attenuating Diet, general purging, by Revulsion, derivation and drying of the head; all which may be done by those Remedies which are prescribed in the cure of the cold distemper of the Brain, being discreetly used; and although many Authors commend the Decoction of Guajacum with a drying diet, you must take heed lest by so doing you mix the flegm with hot humors, and so it turn into a Cancer.

After this, you must take off the superfluous flesh with Caustick, or with Cissers made purposely, and then cicatrize. But in the beginning of this disease, it may be cured with only strong dryers and astringents; and constantly you must apply such kind of Medicines first, before you come to stronger.

First of all, try the Medicine made of the three sorts of Pomegranates prescribed by *Galen*, lib. 3. de comp. med. sec. loc. cap. 3. thus: *Take three Pomegranates, one sowr, another sweet, and the other of the middle sort: let them be ripe, bruise them in a Mortar; then take the Juyce, and boyl it to a Liniment; dip a tent therein, and often put it into the Nose.* This dryeth and astringeth without sharpness, and consumeth the Excrement.

This following Water doth it more powerfully:

Take of *unripe Grapes three pound: Pomegranate peels and flowers, and Sumach, of each two pound: macerate them in Vineger, and distil them: then put to it Allum one pound: Vitriol three ounces: then distil them all together again, and touch the part affected often with that Water.*

If these things will not do, you must use stronger, by putting Sandarach and Orpiment to the aforesaid Water.

Or you may mix the Spirit of Vitriol, or the Water for separating Gold, commonly called the second Water, with Plantane Water, and touch the Polypus often therewith.

Or with the Mercury Water prescribed in the Cure of the Ulcer in the Nose.

Or you may put in a tent dipped in the juyce of Cuckoo-pintle roots, and if it be too sharp, mix it with Plantane Water.

Mercury Precipitate, which is red, is accounted the best Medicine to consume proud flesh without pain, if it be often washed. This Pouder is to be mixed with Honey of Roses, and applied with a tent.

There

There are alſo Plaiſters of the ſame vertue to conſume a Polypus, without pain, as this:

Take *the Emplaiſter* de Mucilaginibus *half an ounce: the ponder of Savin two drams: Incorporate them, and put thereof into the Noſtrils.* Or,

Take of *Verdegreece, Orpiment, Vitriol, and Allum, of each one ounce and an half: Antimony ſix drams: Steep them in Vinegar, then beat them fine, then dry them: thus beaten and ſteeped eight times, let them be ſteeped in Plantane Water, and then dried. Then take of Oyl of Roſes four ounces: Litharge two ounces: Boyl them, and about the concluſion ad two drams of the ſaid ponder: Make a ſtiff Plaiſter thereof, of which make tents.*

In the uſe of Cauſticks, firſt you muſt obſerve that before they be applied, you defend the Noſtrils with the cooling Oyntment of *Galen*, or with Nutritum, or Populeon, or white of an Eg beaten with Oyl of Roſes, and the like.

Secondly, leſt the Cauſticks ſhould hurt the Noſtrils, they muſt be applyed through a ſilver pipe, ſo that it may compaſs the Polipus, and the Medicines may be conveyed to it without touching the Noſtrils.

Thirdly, You muſt obſerve that theſe Medicines are to be uſed in the decreaſe of the Moon, for the tumor then is leſs, and therefore Medicines may eaſily be conveyed to the root.

Laſtly, If Polypus cannot be taken off with Medicines, you muſt come to Chyrurgery, or Manual operation; which is deſcribed in *Paulus Ægineta, Cornelius Celſus, Jerom, Fabricius de Aquapendente*, and other Modern Writers.

Chap. 3. *Of the loſs of Smelling.*

THe Sence of Smelling is hindered and hurt three waies, as other Actions are, that is, by diminiſhing, aboliſhing, and depraving.

The Cauſes are the ſame that diminiſh, and aboliſh the Smelling, only they differ in degrees, namely, diſtemper, obſtruction, and aſtriction.

A cold and moiſt diſtemper joyned with flegm, as it can eaſily make any ſence dull, ſo doth it eſpecially hinder the Smelling, or aboliſh it; hence it is that the Smelling is often hurt when there is a Catarrh, or a Coryza, for cold doth either diminiſh or aboliſh the ſence, becauſe it doth dull and weaken the Natural heat, which is the producer of every action.

Obſtruction comes alſo from flegm which fills the ſenſible Paſſages, as the Noſtrils; and alſo the inſenſible; as the pores of the Brain, and the proceſſus of the Temples, called *Mamillares*, ſo that the ſcents and ſmels cannot come to the parts: it may alſo come of a Sarcoma, Polypus, or other cauſe filling and ſtopping the Noſtrils.

Aſtriction ſometimes may come from flegm gathered in the fore part of the Brain, and compreſſing the *Proceſſus Mamillares*, as we ſaid of the diminiſhing of ſight, from the aſtriction of the Optick Nerves. This aſtriction may alſo come from the Natural ſhape of the Noſtrils, when they are ſo ſtraight that there is no free paſſage for the Scents.

The Cauſe of Smelling depraved, is a ſtink alwaies coming to the Noſtrils, either from an Ulcer there, or from ſtinking flegm in the Noſtrils, and *Os Ethmoides*: for thoſe things which putrifie either in the very ſence of Smelling, or neer it in the Meninges, are not ſmelt by the Patient, but by them that ſtand by; for it is fit that whatſoever toucheth the ſence of Smelling, ſhould be brought from other parts. Moreover, a foul ſtinking vapor ariſing from other parts, as the Stomach, Jaws, and Brain be carried to the *Proceſſus Mamillares*, and ſo infect them, that all the ſcents that are brought thither ſhall ſmel thereof; as when the Tongue is foul with Choller, all things which you taſt ſeem bitter.

The Cauſes are eaſily known. A cold and moiſt diſtemper of the Brain, and ſlimy flegm coming from the Brain, ſhew an abundance of flegm.

An obſtruction if it come from flegm ſhall be known by the ſame ſigns. If it come from Sarcoma or Polypus, you may learn the knowledg thereof from their Chapters.

Now the place in which the matter cauſing obſtruction is contained, is known thus: If it be in the paſſage of the Noſtrils, the voyce is hindered, becauſe the Noſtrils conduce to Speech: but the voyce is perfect if the matter be in the *Proceſſus Mamillares*, or the fore part of the brain.

You may know by the default of the parts, from whence comes the ſcent which hurts the inſtrument of Smelling.

As to the Prognoſtick: When the Smelling is newly hurt, and coming of a ſimple Coryza or defluxion, is eaſily cured; but when it is of long continuance, and from a ſetled diſtemper, hardly: that which comes from the ill ſhape of the Noſtrils, is incurable.

You muſt order the Cure diverſly according to the diverſity of the Cauſes: If it come from a cold

diſtemper

Distemper, you must use those Medicines which were prescribed for a Cold Catarrh.

For the taking away of the Obstruction or stopping of the Nostrils and Processus Mamillares by flegm fastened there; You must use Medicines that Purge those parts, as Errhins, Neezings, and Gargarisms; which were propounded by us in the Cure of the Cold Distemper of the Brain.

If the Nostrils be stopt by a Sarcoma or Polypus; you must fetch the Cure from the Precedent Chapter.

Chap. 4. *Of the Stink of the Nostrils.*

THe Stink of the Nostrils, and of the Breath, do much differ; for that comes only from the Nostrils, and this from divers parts; as from the Stomach, Lungs, Gums, Jaws, or being Ulcerated, which you may know by sense, or by their proper signs.

But the stink in the Nostrils comes of stinking Vapors either bred in the Nostrils, as in *Ozæna*, *Sarcoma*, or *Polypus*: or sent thither from putrid Humors contained in the fore-part of the Brain; or about the *Processus Mamillares*, or *Os Cribrosum*. Now the Humors do putrifie in the said parts when they are too long retained in them, especially if the Brain be hot and moist; and they are retained either by the stoppage or astriction of the parts, and in flat Noses.

The Diseases of the Nostrils which produce this stink, are known by their proper signs above mentioned; but if you find none, you must conjecture that the stink comes from a putrid Humor in the Brain, *Processus Mamillares*, or *Os Cribrosum*.

The Prognostick of the stink in the Nose coming of an Ulcer, *Polypus*, or *Sarcoma*, depends upon their Prognostick: but that which comes from corrupt Humors contained in the fore-part of the Brain, if it be New, is easily Cured; if Old, uncurable: especially if it come from a depression and flatness of the Nose.

The Cure is performed by removing the Causes, and appeasing the Symptoms.

The Cure of an Ulcer, Sarcoma, and Polypus is above mentioned: but you must take away the putrid Humor in the Brain, *Processus Mamillares*, or *Os Ethmoides*, by emptying and Clensing means.

And first, You must use Universal Evacuations for Clensing the whol body and the brain from flegmy Excrements, by Pills, Apozems, and the like; to which you may ad, if there be great plenty of Humors, a Sweating Diet: afterwards administer Errhins that clense and bring forth the Matter conjoined.

And first of al, Let him morning and evening snuff up white Wine from the palm of his hand in which the Lesser Centaury and Calaminta have been boyled.

Then let the juyce of Beets extracted with the Water of Marjoram be used in like manner.

Or,

Take of *Cyprus Roots, and Calamus Aromaticus, of each half an ounce: Red Roses one pugil: Myrrh two drams: boyl them in white Wine for an Errhine.*

That you may draw down the flegm more violently, make this.

Take of *Flower-de-luce-Roots half a dram: white Hellebore and long Pepper of each half a scruple: Annis-seeds and dryed Marjoram powdered of each one scruple: Euphorbium one grain: Oyl of Spike Chiry, and Violets, of each as much as is sufficient: make a soft Oyntment, in which dip the top of your little finger, and anoint the Nostrils within; or put it with a Tent or Pledget as big as a Pease into the Nostrils.*

Lastly, To oppose the stink, you must snuff up sweet things, as *Galla Moschata* dissolved in sweet Wine, Angelica-water, or the like.

Chap. 5. *Of Coryza, or Pose.*

CO*ryza*, called in Latin, *Gravedo*, is a Catarrh falling from the Brain into the Nose; which Defluxion is of a crude Humor contained in the fore Ventricles of the Brain, and comes for the most of an External Cause, as from the heat of the Sun, drinking of much Wine, hot Baths, and the like, which do melt and dissolve the thick flegm gathered in the Brain: It comes also of External Causes which Cool the Brain, for then it is squeezed like a spunge, and so it sends down the Humor into the inferior parts: as also by over-cooling the Brain there is an encrease of flegm, for through want

want of heat the Excrements are not concocted; therefore are they sent forth through the open passages by the Expulsive Faculty.

This Disease appears of its self, for the Humor is sent in abundance out of the Nose.

Among all kinds of Catarrhs that which is through the Nose is most safe and gentle, easily Cured if it be New, and come of an External Cause; but that which is Old, and comes from a stubborn Distemper of the Brain, is difficult.

As also, when it proceeds of a hot Distemper of the Liver, which sometimes causeth sharp and hot Catarrhs; by which the Nose is often Ulcerated and ill affected otherwaies.

The Cure of this Disease is by Curing the Catarrh; for it requires the same Evacuations, Revulsions, and Derivations; except that here you must not use Errhins, lest they should draw the Humors to the part affected; but Gargarisms and Masticatories after Universals are very good.

And besides these, Authors do commend those things which properly belong to the stopping of a Catarrh; as the vapor of boyled Marjoram; or of Marjoram water taken into the Nose. The fume of Vinegar sprinkled upon a red hot Iron is good for the same; and the better if red Roses have formerly been infused therein: If the Defluxion be very Cold, dry Fumigations of Nigella, Frankinsence, and the like, thrown upon Embers are very good; for by these the cold Distemper of the Brain is amended, and the superfluous moisture consumed.

Chap. 6. *Of Sternutation, or Neezing.*

ALthough Neezing come often to sound men, and useth to be so light an Affect that it deserveth not the name of a Symptom; yet sometimes it is troublesom, that it requireth a Physitian: As we may reade in *Forestus, Obs.* 127. *Lib.* 10. in his History of a certain Maid which had so grievous a fit of Neezing from a sharp salt Catarrh, that she had the advice of many Physitians. This is confirmed by the Old Custom of saying *God bless you* to him that Neezeth; which some say came from hence, In the time of *Gregory* the Great there was an ordinary Disease of Neezing by which the Patients died; albeit some say that Custom is more antient.

Sternutation is a swift motion of the Brain, with which the breath is forced out of the Nose for the throwing forth of things that offend: By the Brain we understand not only the substance thereof, but the whole Body with its Membranes; especially the fore-membranes, which are especially contracted in this Disease, which we may gather from hence, because when we hold up the head we Neez more easily; for then the matter provoking which for the most part is windy and tends naturally upwards, is more easily carried to that part.

But the motion which happens in Neezing belongs to the natural Expulsive Faculty of the Brain and its Membranes, according to *Galen*, 2. *de symp. caus. cap.* 1. where distinguishing Neezing from Trembling and Palpitation, saith, That Palpitation comes only from a Disease: Trembling from Nature and a Disease: but Neezing from Nature only.

But *Galen* at the first sight seems to contradict himself; who in *Cap.* 4. of the same Book, saith, That a Cough and Neezing are Symptoms of the Voluntary Faculty; but it is no contradiction: and *Galen* cleers himself wisely; saying, That in Neezing the Animal Faculty doth concur only secondarily; because in Neezing breath is sent from the Head and from the Lungs; yet the Head gives the original of the motion to the breast; for when it hasteneth to send forth those things that offend in the Nose, it useth both wayes at once to send forth breath: One way which it maketh by it self, Another way which it maketh by the Nerves, descending like long arms into the breast; whence *Galen, Com. Aph.* 51. *Sect.* 7. teacheth, That Neezing comes with antecedent inspiration or taking in of breath when Nature gathers it together to make Sternutation; then the air which goes forth of the breast, joyned with that which is drawn by the Nose into the Brain, doth expel with Noise and violence whatsoever offendeth the Membranes of the Nostrils which have most Exquisite Sense.

From this place of *Galen*, we may gather, That the irritation which causeth Sternutation is made chiefly in the Nose; which is confirmed, *Aph.* 51. *lib.* 7. where he saith, *They only Neez of those thus Affected which have a sharp moisture flowing from the head, as when you put sharp things into the Nose: For as a Cough is a certain natural motion to purge the Arteries which are in the Lungs; so doth Neezing the passages of the Nose.*

But it may be objected, That many standing bare-headed, or otherwise in the cold Air, do presently Neez, that one would think the Brain was provoked immediatly at that time. We *Answer*, That cold Air is the Cause of Sternutation not while it doth immediately act upon the brain: but because through compression of the brain and its Membranes, it causeth a sharp Matter to descend to the Nostrils; although therefore in this Symptom the Membranes of the brain may be provoked: yet

Neezing is not produced before a sharpness or tickling come to the Membranes of the Nose which are exquisitely sensible.

The Causes of Neezings are known by what hath been said, namely, What things soever can provoke the internal coat of the Nostrils, such as are sharp humors or vapors, either coming from the Brain, or sent from the inferior parts; hence men neez in feavers, saith *Avicen*, because sharp vapors are sent from the whol body into the head; or it is caused when sharp things are externally put into the Nose, as sharp Medicines called *Pharmica* Neesings. These are the external Causes which provoke neezing immediately. There are many other mediate Causes which make internal Causes, or move them, as all alterations of the Air, as above said of cold Air. *Galen* in his Book *de instrum. odoratus, cap.* 6. saith, That neezing is provoked by beholding the Sun, because the Spirits of the Brain, like to a vapor, are discussed by the Sun.

The knowledg of this Disease is manifest. The outward Causes appear by the relation of the Patient; but the internal from the signs of the parts affected, by which the matter provoking is sent to the Nostrils, and fore part of the Brain.

As to the Prognostick; This Disease is of it self without danger. But in the beginning of a Catarrh or Coryza it is very hurtful, because it keeps the humor from concoction by its motion. Sometimes in Feavers it is so strong that it takes away all strength, and causeth bleeding at the Nose; sometimes it is no waies hurtful, and in sound men it expelleth the superfluities of the Brain: In sick men it is held a good sign. It promiseth help in Feavers, especially in malignant Feavers when all things are desperate. If neezing happen to a woman in fits of the Mother, or that hath hard travel, it is good, Aph. 35. Sect. 5. Neezing provoked with Medicines is good against Apoplexies, and other great Diseases of the Brain. And it being provoked they do not neez, it is a sign of death, for it signifieth that Nature leaves to act.

In Diseases of the Lungs, especially in a Pleurisie, and *Peripneumonia*, or inflamation of the Lungs, neezing is evil, *Hipp.* 2. *Progn.* because from the shaking of the Brain in neezing, the parts of the Breast are violently pulled and torn; from whence the inflamation is encreased, and there is no other evacuation of the matter causing the disease; but for the expelling of flegm contained in the Griffles of the Lungs, which could not be cast out by a Cough: *Galen* theweth that neezing is good, *Gal.* 2. *de symp. caus. cap.* 5, & 6.

The Cure when it is necessary, or when neezing bringeth inconveniencies, is made first by removing of the External Causes, if it come from them. If it come of an internal Cause, you must remove that also, by Evacuations, Revellers, Derivers, and Discussers.

If a hot distemper of the Brain or any other part send sharp vapors to the Nostrils and inward Meninges. Then you must open a Vein, and then purge, then revel the vapors with Frictions, and Ligatures, with Cupping Glasses to the Shoulders, also use other Revelling, Deriving, and Discussing Medicines, comb the Head, pull the Ears, rub the Eyes, blow the Nose, and hold the Breath.

Lastly, To take away sharpness, and hinder the Nostrils from being provoked, it is good to take the vapor of hot water into the Nose; or to anoint the Nostrils with Oyl of Roses, sweet Almonds, Violets, or with fresh Butter; or to snuff up warm Milk into the Nose; by which only Remedy *Foresius* presently cured the Maid mentioned formerly.

Chap. 7. *Of Bleeding at the* Nose, *called* Hæmorrhagia.

The word *Hæmorrhagia*, vulgarly signifieth any flux of blood coming from any part. But peculiarly, when it is named simply of *Hippocrates*, it signifieth only that flux which cometh from the Nose, as the first and most evident kind, as *Galen* observed, *Com.* 1. *in* 1. *Epid.*

An *Hæmorrhagia* of the Nose, is a Symptome in the excrements of those things which are wholly against Nature. For Blood coming through the Nose, either comes from the Veins and Arteries in the Brain, or from the Vessels coming from the Pallat to the Nostrils, which are like the Hemorrhoid Veins in the Womb and Fundament.

But since every Symptome depends upon a Disease as its immediate Cause, the cause of this will be either an Organical, or a Common Disease.

The Organical is two-fold: The opening of the Vessels, which is called in Greek *Anastomosis*; and the thinning, or rarefaction of them, called *Diapedesis*.

The Common Disease is two-fold: The breaking of the Vessels, called *Rexis*; and the Erosion called *Diabrosis*.

The Causes immediately producing those Diseases, are either exceeding in quantity or quality of Blood.

Blood

Blood offending in quantity can either break the Veins, or open the Orifices of them.

In quality, if it be too hot, or too thin, it will flow out by *Anastomosis*, because heat doth dilate the Orifice, and thinness maketh it flow more easily. Also the same qualities make a *Diapedesis*: for heat maketh the coats of the Vessels thin, and the thinness of the blood makes it easie to pass through the pores of those coats.

Lastly, The sharpness of the Blood gnaweth the Tunicles of the Veins, and ulcerateth them, from whence cometh a *Diabrosis*.

The external Causes also do concur to produce this Disease, either mediately, or immediately.

Immediately, as falls, stroaks, wounds, and the like, which break and divide the Veins.

They work mediately which do encrease, warm, and make thin the blood, as plentiful Diet, Drunkenness, Idleness, too much Exercise, great Noise, Heat, long staying in the Sun, and the like.

The Differences of *Hemorrhagia* are these: Some are Critical, some Symptomatical.

Critical *Hemorrhagia's* are in acute Feavers, by the force of Nature endeavor to expel the cause of the Disease this way, as especially in those Diseases which are joyned with the Inflamation of some Entral, especially of the Liver, or the Spleen, which are many times discharged by these waies; sometimes it comes without a Feaver, when Nature dischargeth her self of the superfluous blood, whence we see many in their youth have an Hemorrhagy by fits, and others bleed other waies.

A Symptomatical Hæmorrhagy happeneth chiefly in Chronical Diseases, in which filthy blood is produced by reason of the debility of the Liver, or some other great Distemper, which either flows through those Veins by the weakness of the retentive faculty, or is sent forth by the expulsive, as an unprofitable burden, because impure blood is not fit to nourish the Body.

Hæmorrhagia is known of its self. But its Causes are thus distinguished: That which cometh by *Anastomosis*, hath this common with that which comes by *Rexin*, or rupture, in that in both the blood floweth plentifully; but in this they are distinguished, If a blow or a fall went before, we should suppose it to be *Rexin*: But when Ruption cometh from *Plethora*, or much Blood; as also apertion of the Veins; thus they may be distinguished: When the Vessel is broken, the Blood floweth constantly; when it is opened, at a distance, and by fits only; because the Orifices of the Vessels use to be knit and closed when there is less plenty of the Humor which dilateth flowing thereto; but broken Vessels stand alwaies open, and therefore blood continually floweth till the solution of continuity be united. Moreover the opening of a Vein, is distinguished from the breaking, by the substance of the blood: For if it be thin, it comes from a Vessel opened; if thick, it comes from a broken. Hence it is that Hemorrhagy comes in yong men for the most part by the opening of the Vessels, because their blood is thin; but in old men from Ruption, because theirs is thick.

If it comes from Erosion of the Veins, there will be signs of *Cacochymia*, or ill juyce in the body of an Ulcer, and matter sometimes comes forth: or at least a salt Catarrh hath gone before. If it comes by *Diapedesis*, or Rarefaction, the blood is thin and little.

The Causes antecedent and external, are easily distinguished: For if it come from plenty of blood, there is a red face and large veins: as also the Diet hath been large and hot, or there hath been some external cause which hath melted and made thin the blood, and these especially befal them who have very hot Livers.

If it come from evil Juyce, it is known by its proper signs, which declare whether Choller or Melancholly doth abound: Moreover, the Blood will appear corrupt either from the Nose, or taken from the Arm.

If it come from the weakness of the retentive faculty, the face will be pale, and the whol body weak; as also some Disease hath gone before, by which the Liver was first weakened, and then very little blood comes forth, and by degrees.

If the blood comes immediately from the Veins of the Nostrils, it is easily stopt with astringent Medicines applied thereto, and there will be no pain in the Head. Contrarywise, if it come from the Brain, there is some pain in some part of the Head, the flux is hardly stopped, and things put up into the Nose do no good. Sometimes blood comes from other parts, as the Liver, Spleen, Womb, whose signs are the pains and extensions in those parts.

If the blood flows from an Artery, it comes with force, it is hot, pure, fresh, and clear; but when it comes from a Vein, it is dark, red, thick, sometimes foul, and comes forth with smal force.

The Prognostick of Hemorrhagy coming, especially if it be Critical, is taken from the hurt actions, when the Excrements and qualities are changed: as watchings, and dreams of red things, a great pain of the Head and Neck, heaviness in the Temples, and great beating of those Arteries, ringing and noise in the Ears, dulness of the Eyes, with redness thereof, and of the whol face, hating of light, involuntary tears, itching of the Nose, a drop of Blood upon the day that declares the Crisis, difficulty of breathing, an extention of the Hypochondria without pain.

The Reason of which signs is: When the Blood begins to be carried to the Head, it begets in the Head Phantasms of red things, both waking and sleeping: as it happened to a yong Roman which

Galen mentioneth, *lib. de præsag. ad Posthumum, cap.* 13. he had an acute Disease, and thought he saw a red Serpent about the Chamber Seiling, at which being frighted, he leaped out of his bed: Hence *Galen* foretold a Hæmorrhagy at hand, and hindered the letting of blood which other Physitians had prescribed.

The pain of the Head and Neck comes from the translation of the blood into the superior parts, which by distending and pulling the Membranes causeth pain.

The Arteries in the Temples beat by reason of their compression which is caused by the fulness of the Veins.

The noise in the Ears comes from vapors flying in abundance into the head.

The sight is dim because many thick vapors sent up do stop the passages. Hence it is that when passage is denied to the Animal Spirits, the sight is dim.

The things flying before the Eyes called *Marmaryges*, are nothing but thin bodies divided and of divers colours contained between the *Cornea* and the *Crystalline*, coming from vapors ascending: which though they be inward, yet through deception of the sight they seem to be outward; because the Eye being used to see External things, supposeth whatsoever is within, to be without.

The Redness of the Face and Eyes comes from blood in those parts increased: there is a detestation of light, because the Eyes being distended with plenty of humors, wil be more distended with light, because it disperseth the Spirits: Hence the Eye is dilated, which causeth pain, which that the Patient may avoid, he avoideth the light.

The involuntary Tears come from the repletion of the Eyes, and the parts adjacent, which being too much Distended to press the Glandles that contain the moisture of which tears are made.

The Itching of the Nostrils comes from vapors ascending upwards.

Drops of blood upon the day of demonstration, namely, the fourth or eleventh, sheweth that there wil be an *Hæmorrhagy* upon the day of judgment; namely, the seventh or the fourteenth, because in those dayes Nature begins to transfer the Humors to those parts.

The breathing is difficult, because while the blood flyeth upward it compresseth the *Diaphragma*.

Lastly, There is a stretching of the *Hypochondria*, because the blood begins to move in its fountain, and in the roots of the veins: but this distention is not constant, and is without pain, as the difficulty of breathing is: for if they should last long and increase they would be signs of the Liver inflamed.

The Prognostick of a present Bleeding at Nose is thus.

If Blood flow moderately out of the Nose in the day of judgment it is sign of Health; although *Galen* doth confirm this; yet *Fernelius* denyeth it, saying, *lib.* 2. *de sanguinis miss. cap.* 1. That no discharge of blood, although critical, is sign of health; for though it ease madness, watchings, headach, and other Symptoms, yet it scarce ever cureth the Disease, because the purer portion of blood is sent forth and the pure remaineth; and this is thus proved, because the blood coming from the nose is of a laudable colour and substance, when blood at the same time taken out of a vein in the arm or else where, shal appear to be corrupt.

This Doctrine of *Fernelius* is very real, but not altogether to be received: It is true, That in acute Diseases, especially malignant Feavers, a *Hæmorrhag* doth not alwaies Cure the Disease: as Sweat is not alwaies a sign of Health in those Diseases. because these Evacuations being forced by Nature before the time, come for the most part from the malice of the matter of the Disease: Yet sometimes acute Diseases are cured by *Hæmorrhagia*, as *Galen* taught in his Third Book *de crisi. cap. ult.* and elsewhere. And the reason why blood out of the Nostrils is alwaies pure, is because it comes by drops, and therefore would be so quickly cold that the impure parts could not be separated; and the purer parts mixed with the rest would make the whol mass red. But blood taken out of the arm, because it comes flowing freely, keeps the colour long in the vessel from which the impure parts are separated, so that the thick and drossy part goes to the bottom, but the choller and flegm which is more altered and impure, swims at the top, and so the blood seems impure and sordid.

On the other side, if blood should drop from the vein it would appear pure, because it presently goes together before the *Heterogeneal* parts can be divided by the heat; nay if blood flow freely and be caught in a large vessel, it wil appear pure because it is quickly cold.

Hæmorrhagyes that are very great are the worst, for they tend to a Convulsion: For sometimes it comes to pass that Nature being burdened with much blood, and stirred up to throw it forth, cannot observe a Mean, and makes an over Crisis, which Physitians must stop.

An *Hæmorrhagy* in the beginning of the Disease is evil, because it is Symptomatical, and comes from the malignity of the matter of the Disease, Nature being stirred up to send it forth before her time.

An

An Hæmorrhagy which is on the same side with the part affected is good, but otherwise it is evil so in the inflamation of the Liver when blown forth out of the right Nostril it is good, but out of the left, bad.

Contrarily, When the Spleen is inflamed, if blood come forth of the left Nostril it is good but out of the right bad: because al good Evacuation ought to be *Kata ixin.*

A few drops coming from the Nose are evil: for it signifies the weakness of nature, and the malignity of the disease.

For al Excretions are condemned by *Hippocrates*, in acute diseases if they be begun only and not finished, because there is greater security in those Feavers in which nature putteth forth nothing, than in which she puts forth little to no profit.

For then it is to be supposed that she tends to Concoction; but if a drop appear, it is a sign that nature was stirred up before her time.

But a drop coming upon the day of Indication, and signs of Concoction also appearing, it signifies that there wil be an Hæmorrhagy upon that Critical day.

Hæmorrhagies continuing long, foreshews the weakness of the Liver, and the coldness also, and an evil habit with a dropsie to be at hand.

To him who have bled at the nose in Quartane Feavers it is evil, *Hippocrates*, *Aph.* 87. *Sect.* 7. For as *Avicen* sayeth bleeding in Melancholly and Flegmatick people is hurtful, because it cooleth too much.

To them who in Feavers have lost much blood at the Nose, or any part, when they amend their belly wil be loose, *Hip. aph.* 27. *sect.* 4. For as *Galen* saith in *Com.* when the natural heat is debilitated by bleeding, neither can their meat be wel concocted, nor turned into blood, nor distributed into the body: and therefore it is fit they should be loose bellied, until Nature recover her strength.

In the Cure of *Hæmorrhagia*, first observe whether it be Critical or Symptomatical: For a Critical is not to be stopped, but you must suffer it to flow in a great quantity: For *Avicen* saith, That blood hath come from the Nose to the quantity of four pints by a Crisis without any decay of strength. And this seems to be taken out of *Galen*, who in his Book *de Progn. ad Posthum. cap.* 13. suffered a yong Roman to bleed four pints and an half before he would stop it.

Which as it may fal out wel in very Plethorick people, so in others it may endanger life; and it is certain that a Critical Hæmorrhagy, although it is the work of Nature, yet sometimes is beyond measure; for Nature being burdened with blood, and stirred up to expel it, sometimes cannot keep within measure, but maketh too great an Evacuation; whence we ought to fear a great dejection of strength, and death, and then it is to be stopt, as often as any notable infirmity followeth.

So also that blood which customarily floweth without a Feaver is not to be stopped, but to be left to Natures ordering, except it be immoderate; for many by such bleeding have been freed from great Diseases, into which after, upon suppression thereof they have fallen.

But a Symptomatical Hemorrhagy is to be stopt, which may be done by revulsion of the Blood from the Nose, and by repelling it to the parts adjacent, by stopping of the Veins which are open, by staying the disorderly motion of the blood, and by evacuating the sharp and thin humors mixed with the Blood, which are the chief Cause of Hæmorrhagy, by correcting them, and hindering their encrease, and by strengthening the retentive faculty of the Liver and Veins: All which may be done with the Remedies following.

And first Blood-letting is the chief thing for Revulsion, which must be done quickly before the Patient grow weak, and that out of the Vein on the same side the Nostril is, out of which it cometh: on the right side, if from the right Nostril; on the left, if from the left: And *Galen*, *lib. de sang. miss. cap.* 11. confirmeth the efficacy of this Remedy, affirming that he hath presently stopped violent bleedings at the Nose only thereby. But it must be taken in a large quantity if the Patient be strong, and from a large orifice: Although most of the Ancient and Modern Physitians think otherwise; and say that blood must be let out at a smal orifice by little & little often, by which means they say the Revulsion will be better. But that you may make the blood move the contrary way, you must have a stronger motion for hinderance of a weaker; therefore by how much the larger the orifice, and the more violent the motion is of the blood from the Vein opened, by so much the sooner will the blood at the Nose be stopped: But if by once letting blood, and applying other Remedies, the Hæmorrhagy be not stopt, you must repeat Blood-letting according to the strength of the Patient. You may also open the Vein in the Foot, that a Revulsion may be made at a great distance, which also availeth much, as *Avicen*, *Paul.* and *Trallian* say.

After Blood-letting, as also before, rub and bind the extream parts, and clap great Cup-glasses to the Hypochondria; to the right side, if the right Nostril; to the left, if the left do bleed: For *Galen* stopt an Hemorrhagy in a yong Roman, by a Cupping-glass to the Hypochondrion without blood-letting, as he saith *lib. de prog. ad Posthum. cap.* 13.

Not-

Notwithstanding, the applying of Cupping-glasses to the Hypochondria, is not altogether safe, for the blood then being hot may be drawn in too great a measure into the Liver, or the Spleen, and inflame them. Of which there is an example in *Fabricius Hildanus*, *Obs.* 47. *Cent.* 2. of a Courtier who bleeding violently at the Nose; to whom, with other Remedies, there were great Cupping-glasses applied to his Liver: The blood stopt, but there followed a great inflamation of the Liver. Therefore you must be wary in applying Cupping-glasses to the Hypochondria, and never use them but when all other Remedies fail, and after divers Phlebotomies: For after the plenty of blood is taken out of the Veins, there is less danger of attracting too much Blood to the Liver to inflame it, but which way soever they are applied, they draw blood and spirits to those parts whereby their heat is encreased, which seems to be contrary to the opinion of *Hippocrates*. Aph. 13. Sect. 3. where he saith, That in those parts from whence Blood cometh, or is about to come, you must use cold things. The Interpreters say, that cold things are to be applied to those parts from whence the motion of the Blood beginneth, as the Liver and Spleen.

Forestus commendeth Cupping-glasses to the Feet, by Experience, *Obs.* 14. *Lib.* 13. in these words: *When a Gentleman exceedingly bled at the Nose, and no Remedies would help him, having lost at least twelve pound of blood from both Nostrils; I was sent for, and after he had bled a whol day, I commanded two Cupping-glasses without scarrification to be applied, one to his Liver, the other to the Spleen, and the blood seemed to stay a little; but after my departure, when his wife perceived him to bleed again out of both Nostrils, and that his cupping had done no good, she commanded that the cupping should be set upon his feet, and the blood wonderfully stopped beyond expectation: But after the Cupping-glasses had been a while fixed, the Patient fell into a swound; and therefore they took them off, and threw water in his face, by which he recovered; and then being refreshed with the scent of Wine, he came to himself, and was restored to his former health, from his bleeding, as it were by Miracle or Inchantment, beyond all expectation.*

Moreover, Cupping-glasses applied to the Shoulders both dry and with scarrification, do draw back the blood from the Nose. But they be not alwaies safe, for they may attract blood from the inferior parts, and so give occasion to a further bleeding.

Some Practitioners do apply Cupping-glasses to the Biceps Muscles of the Arms, by which they make revulsion.

Crato in his Counsels, reckoneth the bending of the little finger on the same side among the revulsives: for by the great pain that will be caused thereby, there will be a drawing back of the blood.

But the Blood and Spirits are drawn inwardly more strongly by swouning, whereby we saw a Bishop in the year, 1629. cured of a violent Hemorrhagy; for being in a malignant Feaver with the inflamation of the right Cidney, which after in the twenty seventh day of his sickness, turned to an Impostume, he was taken with so violent a bleeding, that in four hours he lost two pounds, and still bleeding and strength decaying, we bethought how we should stop it; and after the use of many remedies to no purpose, the Patient desired to ease his Belly, and could not be compelled to do it in his bed; we foretold him, that if he arose, he being very weak would faint away, but that would be good to stay his bleeding: and so it came to pass, for after he rose he swouned; from which with a little Wine he was recovered, throwing also Water in his face; after that he had a large stool was brought to his bed, and bled with less violence; then giving a dram and an half of Lapis Prunellæ in cold Water, presently the blood stanched when the same and other Medicines could not formerly do it. Although fainting be not vulgarly accounted a Remedy against bleeding at the Nose, yet *Hipp. lib.* 3. *Epid. Sect.* 7. saith thus: *These things stop the bleeding of the Veins, swouning, the alteration of the posture or figure of the Body, interception, a tent, apposition, and deligation or binding.* *Galen* in 5. meth. cap. 5. teacheth the same, in these words: *Moreover Blood is stanched both by fainting, and by revulsion, and derivation to the parts adjoyning, and by cooling of the whol Body, and especially the part afflicted: But you must observe that fainting doth only profit when the blood floweth from the Veins which are terminated in the superficies of the body, which* Hippocrates *also hints at, when he prescribeth tents, bandage, and the like.* For when blood cometh from the internal parts, as in an *Hemoptoe*, or spitting of blood, immoderate flux of the terms, or internal wounds, then fainting will encrease the bleeding, the heat being thereby drawn into those parts from whence the blood cometh.

Zacutus Lucitanus, *Lib.* 1. *Praxis admirandæ*, Obs. 66. reports that he cured a desperate Hemorrhagy, which would yield to no other Medicines, by an actual Cautery to the soals of both feet; which Remedy he saith had like succes in a great bleeding at the mouth coming from the opening of the Vein called *Ranuncula* under the Tongue by corrosion from a sharp Catarrh; and when the Blood had flowen two daies to the quantity of twenty pounds, and many astringents and Emplasters had been used, as also Revulsives and thickening Medicines, with Narcoticks or Stupefactives, by a Cautery in the soal of the foot it was stanched.

If still he bleed after all the aforesaid Revulsions have been tried, you must come to repelling Medicines,

dicines such as are vulgarly called *Anacollemata*, things to be applied to the Forehead and Temples, which are thus made:

Take of *Bole-Armenick, Terra Sigillata, Sanguis Draconis, Frankinsence, Mastick, and Aloes, of each one dram: Bran and the hair of an Hare cut small, of each half a dram: one white of an Egg, the Juyce of Plantane, and Nightshade, of each as much as is sufficient to make a Cataplasm for the Forehead, and the Temples.*

In extremity you may quickly make a Cataplasm of Bole-Armenick only, mixed with the white of an Egg and Vinegar for the same parts.

The most excellent is made of Time and Vinegar, and applied to the Temples and the Forehead as thick as two fingers: and if the first application do it not, let it be repeated, and it will certainly cure.

Amatus Lusitanus commends a cap made with the aforesaid Pouders, mixed with Vinegar and Water, laid upon the Head being shaven; which you may try in great extremity.

Also you may make a Fomentation of very cold Water, or Water and Vinegar to the Temples and Forehead, changing your cloaths as they grow hot.

Or you may make a Fomentation of the Juyce of Plantane, Knotgrass, Horse-tail, Shepheards-purse, and the like, with a little Vinegar to make it pierce. Where mark, That the Head is not to be washed with cold Water, nor repelling Medicines to be laid to the Forehead, before you have made sufficient Revulsions; otherwise the blood being struck in with cooling wil fill the Veins above, as *Galen* sheweth, 5. meth. cap. 6. and so the flux will be encreased, by the heat encreased through *Antiperistasis*, by which the motion and force of the blood is encreased; or if the blood be stopt, there will follow a Convulsion, Apoplexy, short and difficult breathing, called *Dyspnœa*, or the like.

Vinegar alone will stop blood if the Forehead be fomented therewith in a Spunge.

Or if you dip a Spunge in Vinegar, and put it into the Nose.

To throw cold Water in the Face, doth not only drive back the blood, but also draweth inward by fear, if done on a sudden, and unawares. As a syncope or swouning, as we said before, staucheth blood by the retraction of it inward; by the same reason doth fear also. A great quantity, namely, two or three glasses must be cast into the face divers times in a short time.

Ordinarily they use to hinder the ascent of the Blood with fomenting of the Neck with a cloth dipped in cold Vinegar and bound about the Neck, changed often before it turn warm.

Vinegar and Water held in the mouth, doth drive the blood down, and keeps the blood from falling into the Throat.

Also Vinegar put into the Ear next to the Nostril bleeding, is good to close the Vein.

A Bean, or piece of money bound to the root of the Nose, between the Eyebrows, stoppeth the flux.

Also you must observe if the Veins or Arteries in the Forehead or Temples do swell, for then you must bind them down with Money, or a dry Bean slit in length, and this is a special Remedy. And for the better Compression, you must lay a Pledget dipt in the white of an Eg beaten with Time, upon the Bean or Money.

The fume of Vinegar sprinkled upon a hot Iron, taken into the Nostrils, will close the opened Veins.

As also Vinegar and Water often snuffed up.

Besides those things which repel, we must use things that close and glutinate the Veins. For which end, many Remedies may be put into the Nose.

Galen, lib. de paratu facilibus, cap. 13. used Frankinsence and Aloes poudered, with white of an Egg, and the hairs of an Hare, upon lint.

Or you may make a Tent thus:

Take of *Frankinsence, Aloes, Dragons blood, Bran, Cobwebs, and the hair of an Hare cut small, of each half a dram, made up in a Tent with juyce of Plantane.*

The same Pouders may be blown into the Nose. For which purpose also great Practitioners do commend the pouder of Eg shels burnt, and burnt Paper. But you must remember besides the use of these pouders, at the same time to fill the mouth with cold Water lest the Medicine get into the mouth.

The Cotton of an Ink-horn squeezed a little, and made into a tent, doth powerfully stop.

As also laid and bound to the Forehead.

If it yet continue, you must come to Escharoticks, which by burning the mouths of the Veins produce a Scab, and so stay the blood. But these must be used warily, for when the Eschar falls off, they will bleed again.

Burnt Vitriol is the best, which besides its Escharotick quality, is good to stanch blood.

If you will make it gentle, you must mix other Medicines thus:

Take

Take of *Galls half a pound*: *Allum a quarter of a pound*: *Calcine them, and blow the pouder into the Nose.* Or,

Take of *Bole-Armenick, Dragons blood, Frankinsence, Aloes, Time, burnt Vitriol, Sarcocol, and Mastich, of each one dram*: *Make a fine Pouder.*

White Vitriol is more gentle than burnt Vitriol, and is not very Escharotick: yet it staies bleeding very powerfully by astringing the Orifice of the Veins, if it be put into the Nose with a Tent.

You may make Remedies to stop blood, by restraining its motion by cooling, thickning, and coagulating, thus:

Take of *Sal Prunellæ one dram*: *Troches of Amber half a dram*: *Blood-stone and red Coral prepared, of each one scruple*: *the Syrup of dried Roses one ounce*: *Plantane Water three ounces. Make a Julep to be taken twice or thrice in a day.*

Take of *Conserve of Roses and Quinces, of each one ounce*: *the Troches of Spodium, or burnt Ivory, and Terra Sigillata, of each one dram*: *Coral prepared, and burnt Harts-horn, of each one scruple. Make an Opiate, of which let him take the quantity of a Chesnut twice or thrice in a day.*

Vinegar and Water called Oxycrate, drunk plentifully staies an Hemorrhagy.

Outwardly to cool the blood, and to hinder its motion, you must apply cold Water, or Water and Vinegar to divers parts, powring it upon the Arms, and putting the feet therein, and applying to the Cods, as also to the back, because the *Vena Cava* runs that way, and so the blood will be cooled when it is exceeding hot, when the aforesaid Medicines cannot remedy, some wet the whol Body with Vinegar and Water, or put him into cold Water, which is not without danger, when the Patient is weak.

It is excellent to temper the heat of the blood, to lay Epithems to the Liver and Spleen made of warm Vinegar and Water.

Finally, In the most desperate Case, when no Medicines will prevail, you must use Narcoticks, or Stupefactives, which presently stop all fluxes and evacuations and motion of Humors; and among the rest three or four grains of Laudanum is the best. But take heed that you give it not to the Patient being very weak, for it is to be feared that the native heat being very little, will be thereby quite exstinguished. One ounce of the Syrup of Poppies given in an astringent Julep at night will do the same.

At length you must come to proper Remedies which by an occult secret quality stop bleeding. The most usual and best are these:

The Juyce of Nettles is extolled for strengthening any blood, of what part soever, and therefore it is both given inwardly to four ounces once or twice, as also snuft into the Nose, and applied to the Forehead and Temples made like a Cataplasm with Bran, or the whol Nettle beaten. Some say that the Root held in the mouth will do the same.

Hogs Dung is one of the best Specifical Medicines, if it be applied hot to the Forehead and Temples, or smelt unto, or put dry into the Nose, of which this is a form.

Take of *Hogs Dung dried three drams*: *the pouder of Roses to take away the scent of it, half a dram. Mix them with juyce of Plantane, and dip a Tent therein to be thrust into the Nose.*

Asses Dung used thus is also commended. And *Rodericus a Castro lib.* 1. *de morbis mulierum, cap.* 5. saith that a Physitian of seventy yeers old given to violent bleeding, carried alwaies Asses Dung not quite dry in a box about him, than which he confessed he never knew a better Medicine; especially if when it was dry he mixed it with the Juyce of a Nettle, or if wet he put it alone into his Nose.

Zacutus Lusitanus, lib. ult praxis Histor. cap. 2. saith that he cured one of seventeen years of age that was weak and lean, after he had lost seventeen ounces of blood and used many Medicines, only with this, He gave him the Dung of an Ass very finely poudered in al his Drink and Broth, he made Tablets of the same with sugar, and gave them with steeled water, by which means only the Patient recovered in seven daies space.

The blood it self which comes out of the Nose, is not only vulgarly commended, but by the learned to stop an Hæmorrhagie by a specifical quality; they fry it in a pan and give it the Patient to eat, he not knowing of it.

As also they Calcine it in a Potsheard, and mix it with the mentioned Astringents.

Others commend the Pouder of Snails burnt with their shels: and others put the Pouder of Frogs Calcined into the Nose.

Pereda speaks of an old Woman of *Mount pelior*, that she was Cured of a Flux at the Nose of three daies continuance, by only Mints put into the Nose.

Among other Remedies this is excellent and usual, The fine Pouder of Spicknard taken the quantity of a dram in Broth, Plantane-water, or other liquor, not only by a specifical force, but also by strengthning the Liver it stops bleeding.

Finkius

Finkins witnesseth that a dried Toad powdered and put in a fine red Sarcnet under the Armholes, or held in the hands til it grow warm, wil stanch blood presently: And that the blood wil be immediately congealed as if it apprehended some terrible thing.

Others hang a Toad in the Air while al the flesh is consumed, and keep the bare thigh bone which they put into the Nose, and then it stops bleeding presently.

While you use the aforesaid Remedies, you must think of the taking away of the Cause, which usually is a thin watery Humor or Choller which abounds in the blood, and makes it move disorderly, and provoketh Nature to throw it forth: whence it comes to pass that when it is purged away and the blood clensed that then Nature embraceth blood most familiarly as its chief Friend and the treasure of Life, and wil not labor to cast it forth.

Therefore you must purge twice or thrice if need be with binding and cooling Medicines, thus made,

Take of *Tamarinds half an ounce*: *Plantane Leavs one handful*: *boyl them to four ounces, being strained infuse of the best Rhubarb one dram*: *yellow Myrabolans half a dram*: *Spicknard seven grains*: *strain it and dissolve therein one ounce of Syrup of Roses, and ad one scruple of the Pouder of Rhubarb. Make a Potion.*

In an old Disease that Returneth often, such a Purge repeated once every Week, is excellent.

And after every Evacuation, Astringent Juleps, or Opiates, that are above mentioned; you may make Juleps thus.

Take of *the Roots of Snakeweed, and the greater Comfrey, of each one ounce*: *Plantane, Knotgrass, Rupture-wort, & Fumitory, of each one handful*: *of the four great Cold seeds, of each one dram*: *boyl them to a pint, and dissolve in the strained Liquor of white Sugar, three ounces*: *Make a Julep for three mornings draughts.*

Instead of Juleps or Opiats, or after they have been used a while, you may give a Syrup made of the Juyce of Nettles, and an equal proportion of Sugar, two spoonfuls at a time every morning.

Nor is it sufficient to take away the present Cause of the Hemorrhagy, namely, To Evacuate the Peccant Humor, but you must see that it return not again.

The Bowels are to be strengthened, and their Distempers amended; especially the Liver in which those Humors use to breed.

And the Juleps formerly prescribed wil do this, as also the Tincture of Roses to Cool the Liver and strengthen it, is very good.

Outwardly you may apply Epithems made thus,

Take of *the Water of Roses, Plantane, Purslain, Sorrel, and Succory, of each four ounces*: *the seeds of Purslain, Sorrel, and Succory, of each one dram*: *the Troches of Camphire, and yellow Saunders, of each two drams*: *Vinegar, two ounces*: *Make an Epithem.*

To these you may ad al the Remedies which are prescribed for the Cure of a Hot Liver.

Somtimes the Hot Distemper of the Spleen and Reins is the Cause of this Disease; and then you must apply Cooling Medicines to those parts also.

To these must joyn a good order of Diet, which from the beginning of the Cure must be diligently observed.

And therefore, first the Air where the Patient is, must be Cool: and if it be Summer time let it be altered, by sprinkling the floor with Vinegar and Rose-water, and strowing of the Leavs of the Vine, Willow, or Water-Lillies, or the like.

Let his Meat be thickning of little nourishment, as Calves-feet, Sheep and Goats-feet, and the like: Rice, new fat Cheese, hard Eggs, and the like.

Let him eat Fruits that are somwhat sharp, binding, and bitter; as Pears, Quinces, Medlars, Services, and Sawces of the Juyce of Pomegranats, Lemmons, Orenges, Sorrel; some commend the use of Lentils or Pease boyled in Vinegar, because they have vertue to thicken, astring, and allay the Acrimony of the blood.

Let the Patient abstain, especially in the beginning of the Disease while his strength is good, from Wine, Flesh, and Rear Eggs, which breed much and thin Blood: you must give him Moist Meats and Suppings in the time of his bleeding: As cooling Broths made of Barley, Oates, and Rice, with Water, for chewing doth provoke bleeding, if he be weak you may give him Flesh-broth and Panadoes, in which there is Starch dissolved, which is made without Chalk or Gum Arabick.

Let his Drink be steeled Water, and let al his Meat be boyled in the same, which wil be of more force if Nettle Roots be first boyled therein.

Command him to rest, so that he neither Walk, nor Cough, nor Speak loud or at al, for the motion of the Tongue and Jawes provoke bleeding.

Let his Head be covered, and let him not see the blood, for thereby the imagination being moved, he wil bleed faster.

Let him sleep, for long Watchings make the blood more sharp, Chollerick, and thin: but sleep doth contemperate the Humors, and restrain the motions thereof.

Lastly, Let him avoid the Passions of the mind, which cause the blood to ascend, as Anger, Laughing, and Joy.

The End of the Fourth Book.

THE

THE FIFTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Tongue.

The PREFACE.

THE *Tongue is the Instrument both of Speech and Tasting: But both these Actions are hindered by divers tumors which grow thereabout: And especially every Action is diminished, abolished, or depraved by its peculiar Cause. That all these may be severally described, this fifth Book hath four Chapters: Of which, The first is of Inflamation, and other Tumors of the Tongue. The Second is of the* Ranula *under the Tongue; which though it belong to the kinds of Tumors, yet it is handled by it self, because it requires a different Cure from all the rest. The Third is of the Taste hurt. The Fourth of the Palsey of the Tongue, and other hinderances of its Motions.*

Chap. 1. *Of the Inflamation of the Tongue, and other Tumors of the same.*

AS all the Parts of the Body, and especially the fleshy parts, use to be inflamed; so also the Tongue by blood flowing unto it; which blood as it is either pure, chollerick, flegmatick, or Melancholick, produceth either a true Phlegmon, or a Phlegmon erisipelous, œdematous, or schirrous, which sometimes comes to suppuration: of which there is an Example in *Forestus, Obs.* 24. *l.* 14. of a Brewer which had a great Inflamation of his Tongue that brake, which came to suppuration.

Also the Tongue often suffers a soft and loose Tumor, which is purely œdematous, by the falling of Rhewm from the Head; of which *Galen* propounds an Example, *Lib.* 14. *meth. cap.* 8. in a certain man whose Tongue was so twoln, that he could not contain it in his mouth.

Somtimes the Tongue grows very great, which cannot be accounted any kind of Tumor; as *Galen* teacheth, *lib. de diff. morb. cap.* 9. that he saw a Tongue which grew exceeding great without any sence

sence of pain, neith would it pit or yield to the finger, but it was a bare increase of quantity in the Tongue, and the substance was no way hurt, which came by too much nourishment brought and converted into the substance of it.

And *Claudinus* Consult. 9. gives an Example of this in a maid of twelve yeers old, whose Tongue grew to a great bigness, and the Tumor could neither be called an Oedema, nor a Schyrrus, because it was without pain; neither would it yield to the hand pressing of it, nor take an impression or pit, nor was it without Natural sence.

The Origin of it was a forceable breach of the bridle of the Tongue, by the pain whereof blood was attracted to the part; which being sent thither continually caused this largeness. But in this case *Claudinus* observeth that it is bigger at night, and less in the morning, and alwaies livid, or blewish: The reason whereof he saith is, because in the Concoction and assimulation of the Blood, (which is degmy otherwise, such as is bred in children by reason of their moist Nature and intemperance) many vapors are raised, especially at night, when the heat is drawn in and contracted, by which the Tumor is enlarged: but in the day they are discussed by the motion and heat of the Tongue, by which means it becomes less.

The reason of the blewness is the Air, to which it alwaies is open; for by the coldness of the Air, the blood which cometh to the superficies of the Tongue, before it comes to be like in the substance, doth encrease somwhat, and so turns livid. For *Galen* saith that blood waxeth black with cold, 3. *de symp. caus. cap.* 2. which yet is not so in other parts, because there is no superfluity sent to them, but as much as is sufficient for nourishment.

The knowledg of these Tumors is not difficult, because the preternatural greatness of them is visible.

But the differences of these Tumors are these: If there be an Inflamation, then there is pain, heat, and redness also in the Tongue, wherewith also the face is somwhat infected: But if the Tumor come originally from flegm, the Tongue is white, and there is much spittle whose taste is sweet or without taste. If there be only a bare encrease in the Tongue, there are no signs of other Tumors and Vitrous humors.

As to the Prognostick: Tumors in the Tongue for the most part do not endanger the life unless they grow so big that they cause suffocation, or come from a malignant melancholick humor; from whence they may prove Cancers, which is known by their hardness, blewness, and pricking pain.

You must begin the Cure of the Inflamation of the Tongue with Revulsive and Repelling Remedies; and therefore first, after you have given a laxative Clyster, open a Vein, and take away as much blood as the Patients strength will permit.

Then apply Cupping-glasses with scarrification to the Shoulders.

After that use cooling and repelling Gargarisms, and among the rest the Juyce of Lettice, is commended of *Galen* to wash the Tongue with often, *Meth.* 14. *Cap.* 8.

Or you may make one more compounded of the Decoction of Plantane, Nightshade, Pease husked, and Pomegranate peels, adding som Syrup of dried Roses, or *Diamoron*, that is, Syrup of Mulberries.

After bleeding, appoint a Purge made of things to purge Choller and Flegm, because flegm from the Head doth peculiarly concurr to the production of these Tumors.

After the flux is stopped, you must labor to derive the humor fixed to the part by Evacuations, Revulsions, and Repercussives; and to this end open the Vein under the Tongue, which if you cannot reach by reason of the largeness of the Tongue, you must apply a Cupping-glass with Scarrification under the Chin.

If it tend to suppuration, it must be furthered with a fig slit in the midst, often applied, or with a Gargarism of the Decoction of Barley, Mallows, Violets, Figs, Raisons, Quince seeds, and Fœnugreek seeds, with a little Syrup of Violets and Jujubes.

Suppuration being made, if the Imposthume will not open of it self, make incision: then cleanse it with the decoction of Barley, Agrimony, and Plantane, with Honey of Roses.

But a soft and lax humor coming of flegm, is cured first by a Revulsion with Phlebotomy, if the Patient abound in Blood: then give him a strong Purge, such as *Pilulæ Cochiæ minores*, made of Aloes, Scammony, and Coloquintida, which were happily used by *Galen* to one of sixty yeers, 14. *Meth.* above mentioned. But if he cannot swallow Pills, make him a Medicine of Senna, Agarick, Diaphœnicon, and the like.

After these Evacuations you must first apply cooling and repelling Medicines, as we shewed in inflamation. And *Galen* in the place quoted, cured a Patient of sixty yeers, only by washing with the Juyce of Lettice after Purging.

Moreover, You may with good success wash the mouth with Juyce of Lemmons, Pomegranates, Sorrel, and Plantane, because they do not only repel with their coldness, but also with their sharp-

ness

nefs draw forth the moisture that is fastened in the Tongue.

Also the Tongue may be embrochated with Oxymel simple, unto which you may ad a little Ginger, Sal. gem. or Sal. armoniack.

You may also wash the Mouth with the Decoction of Origan, and Pellitory, with Hydromel, or Honey and Water.

Zacutus Lucitanus, lib. 1. in his History of the chief Physitians, Obs. 47. in a desperate case, when the Tongue grew to a wonderful bigness, so that he feared suffocation, after emptying and revelling Medicines used in vain, applyed four Hort-leeches to the Tongue, and in a short time, after plentiful bleeding, it became thin and smal, and the Patient escaped.

The same *Zacutus*, Obs. 48. of the same Book, tales that he cured a child of ten yeers old, who had a Tongue swollen by a defluxion, so big that it could not be contained in his mouth (after Revulsions by bleeding, Cupping-glasses with scarrification, and sharp Clysters) because the Tumor was soft and loos, only by profound scarrification of the Tongue, and after he commanded that it should be washed with salt Water, from whence there came such abundance of humors that the child presently recovered. Which Observation he took from *Joachim Camerarius*, who saith in his Book of Observations, that one who was almost suffocated with a swollen Tongue, cured himself by cutting it a cross with a sharp Pen-knife, after he had lost much blood.

Finally, A fleshy Tumor of the Tongue, or the over-growing of the Tongue, coming of the superfluous flesh, although it seem to be uncurable; yet it is shewed by *Claudinus* by Chyrurgery to be done, in the place cited; namely, If whatsoever be superfluous be taken away with an incision Knife, first giving fit preparations, all which are described by him in the same Place.

Chap. 2. *Of the Tumor called* Ranula *under the Tongue.*

ALthough in the former Chapter divers Tumors of the Tongue are laid down by us, yet there remaineth one called *Batrachos* in Greek, in Latin *Ranula*; for since it differs from the rest in Nature, and requires a different way of Cure, we thought it best to describe it in its proper Chapter.

Ranula is a Tumor under the Tongue in that part by which it is bound to the Ligament; and for the most part it is so large that it is above the lower Teeth; a cleft being in the middle dividing the right side of it from the left, it representeth the hinder parts of a Frog, from whence it is called *Ranula*, a little Frog. Others say it is called so, because they who have it, have an impediment in their Speech, and croak like Frogs, when they speak. It is like the Tumor Oedma, or Meliceris, from which when it is opened, there comes as it were the white of an Egg, or matter like Honey. And because the said matter is contained in a bag, therefore it is accounted a Meliceris. In these bags sometimes is found a stone as many observe, which *Schenkius* also observeth, Obs. 388. Lib. 10.

The knowledg of this Disease is not difficult, for when the Tongue is lifted up, there is seen a certain loose and soft carnosity, and on both sides of the Ligament there is a certain round swelling like a Pease, Bean, or Chelnut.

This Disease is commonly without danger: But in Children sometimes it threatneth suffocation by Reason of the neerness of the Larynx to the rough Artery. In men if they have pain and a Feaver there is danger, for it may turn to Squinancy. Also that Ranula is dangerous which is black or dusky and hard, and inclining to the Nature of a Cancer, and this must not be touched.

For the Cure of this Disease, first you must take away the antecedent cause by blood-letting, and with purging agreeable to the age and nature of the Patient.

And if the Disease be old you must use Cauteries and sweating Drinks.

Then you must endeavor to dissolve the Tumor with Topicks, thus:

Take of *Pomegranate peels, dried Hysop, and common Salt, of each two drams: Make a Powder thereof to hold under the Tongue, and use it often.*

Forestus speaks of a Girl of twelve yeers of age, that was cured in two daies space with this only Medicine; whose Author is *Nicolaus Florentinus*, who instead of common Salt, useth *Sal. armoniack*, to men, because it pierceth more, and dissolveth better. And *Forestus* used the said Pouder to a Student made with common Salt: as also a Decoction made of equal parts of Gals, Allum, and Pomegranate flowers: And lastly, he commanded the part to be rubbed with parched Salt, and *Sal. gem.* and the Patient was cured without manual Operation, which is seldom seen, because those Tumors are of the Nature of Imposthumes, and are contained in a little bag, so that when the matter hath been discussed, they have been filled again.

If this Tumor cannot be cured with discussing Remedies, you must open it, which must be often done, for it will not often be discussed.

You

You must not make a smal Orifice when you open it, because the matter contained in the Bagg, wil be again gathered and the bagg filled (unto which the part being loose and soft, is very much disposed) but you must make a very long Incision through the height of the Tumor in both sides that the whol matter may be discharged at once: then you must wash the Ulcer, first with gentle things, as the Decoction of Mallows: and then with Clensers, as white Wine and Honey of Roses, or Diamoron, and after with Oxymel till it be clean and free from the Bagg: And finally, to heal it up, wash the mouth with red Wine in which Allum is dissolved.

Forestus Cured the like in a Woman by an Incision made on both sides, and after by washing with Wine and Water mixed with a little Salt.

If the Disease be old, and the Ulcer wil not be cured by the aforesaid Remedy, let it be touched with Oyl of Sulphur twice every day, mixed with Rose-water, one drop of Oyl to six of Water; for so the Distemper wil be corrected, and the part dryed, which must be often washed for confirmation, with Red Wine with Allum dissolved in it.

If after the use of these the Disease return, you must come to an actual Cautery, the manner whereof is taught by *Paræus*, *lib. 7. cap. 5.*

Chap. 3. *Of the Taste being Hurt.*

THE Taste as other Sences, and al actions of the Body, is hurt Three waies, by being Diminished, Abolished, Depraved; it is lessened when it scarce perceiveth remiss savors and strong savors but a little: It is Abolished when it no waies perceiveth those savors whether they be great or little: It is Depraved when the object seems to be of another taste.

The Causes of Diminishing and Abolishing the taste are the same, only they differ in degrees; for if they be light and weak, they Diminish; if great, they Abolish the taste.

And these Causes are either a Defect of the Animal Spirit in the part, or a Distemper of the Third pair of Nerves which come to the Tongue; or the Tongue it self is Preternaturally affected.

The Spirits fail, either by reason of their scarcity, as in dying men; or of the obstruction of the Nerves of the Third Conjugation by which they are carried: or by reason of a Tumor bred in that part of the Head from whence those Nerves do arise.

The Tongue is either covered with a moist slimy matter, or hath Tumors, Pustuls, or Ulcers, and by these the proper action of taste may be diminished or abolished.

The Taste is Depraved when the Tongue is infected with an evil Humor, as in Feavers, when the Tongue is infected with Choller, al things tasted are thought bitter: otherwise if it be with salt flegm or melancholly al things appear to be salt or sowr, for the outward objects being brought to the Tongue do move the vitious juyce of it, which at that time striking upon the tongue most leaveth its savor thereon, and so those things which are tasted, seem to be of the same taste.

It happeneth also sometimes that the Tongue perceiveth the savors of the juyces contained in its self, although no external Object be applied, as *Galen* teacheth, 1. *de sympt. caus. cap.* 4. And it is confirmed by daily Experience in men in Feavers, whose tongue is covered with Choller; which if it be very bitter, they find a continual bitterness on the Tongue though they take nothing into their mouths.

The Diversity of the Causes aforesaid is known by the variety of the tasts and disposition of the Tongue; for a sweet taste and redness of the Tongue signifieth blood: bitterness and yellowness Choller: whiteness with sweetness Flegm: blackness and sharpness Melancholly: a Nauseous taste sheweth that evil Humors are contained in the stomach: Pustuls, Tumors, and Ulcers are manifest to the Eies. And Lastly, If the taste be hurt, and there appear no change in the Tongue, you must suppose that the Cause lieth in the Brain or Nerves.

The Cure is various according to the diversity of Causes; and therefore if the Disease lie in the Brain or Nerves, you must apply Remedies thereto, especially such as use to be prescribed for the Cure of the Palzey: but when the taste is depraved by ill Humors, commonly that Symptom depends upon other Diseases, especially upon Feavers, which being Cured the Symptoms also are removed.

If the Taste be offended by Tumors, the Cure thereof depends upon the Cure of the Tumors above mentioned.

Finally, If it come from Pustles or Ulcers of the Tongue, you must Cure them by blood letting and Purging of sharp Humors; to which you may ad Cooling, Drying, and Binding Topicks in form of a Gargarism: And if foul Ulcers be found, let them be clensed with Honey of Roses, with a little Oyl of Sulphur or Vitriol, in such a quantity as may gently touch upon the Tongue.

Or,

Or, if you wil Dry more violently, Let the part Affected be often touched with the aforesaid Oyls, pure and not mixed; for to the Aphthe or Thrush and al Ulcers of the Mouth and Tongue are quickly Cured.

Chap. 4. *Of the Palzey of the Tongue, and the Hurt Motion thereof.*

THE Chief Action of the Tongue, is Speech: and this is Abolished, Diminished, and Depraved by divers Causes, which are referred to Similary, Organick, or Common Diseases.

As for the Similary; A moist Distemper with Matter maketh the Tongue more soft and loose, so that it cannot freely exercise its motions.

Dryness doth too much foul the Tongue, as in Feavers.

But Organical, or Diseases of the Instrument, are when the Tongue is enlarged, as we said before concerning Tumors, which hinder the free motion of it: also when the figure or shape of it is deformed, as when the Tongue is naturally too short, or by being partly cut off, for if it be tyed too strait; as also when the seventh pair of Nerves which come from the Brain to the Muscles which move the Tongue are stopped.

Lastly, Common Diseases are Solutions of Continuity or Wounds in the part.

Too much moisture maketh Balbuties, a kind of Stammering, which keepeth men from pronouncing of the Letter R.

And this is either natural as in Children by reason of their much moisture, who are Cured by age when the superfluous moisture is consumed.

But in some there is a moist distemper al their Life, and they are alwaies stammerers; of which *Hippocrates* speaketh *Aph.* 32. *Sect.* 6. thus, *Stammerers are most subject to long Fluxes of the Belly.* *Galen* in his Comments saith, *That they who naturally stammer, have either a moist Brain, or Tongue, or both.* From the moist Brain much moisture may fal into the belly, whence the Flux is caused. And when the tongue is naturally too moist, it is probable also that the belly wil be loose and weak through moistness: because the Stomach and the Tongue have both the same Tunicle: Now the proper passion of a moist belly is a looseness.

But *Avicen* seems to be against this Doctrine, saying, *Fen.* 1. *lib.* 3. *tract.* 4. *cap.* 18. That Stammerers are given much to Melancholly, and Melancholly cometh from a dry Brain: but this Contradiction is Reconciled, thus, *Avicen* meaneth by Stammerers, not such as are properly so called and cannot pronounce R, but such as Stutter, and repeat the same Syllable often before they speak a word; and this cometh from a hot and dry Distemper of the Brains; in which the thoughts are so quick that they out-run the tongue, and hasten its motion, whence comes that disturbance.

But the Stammering aforesaid coming from the Birth, is incurable.

In some an accidentary Stammering cometh by a Catarrh; and great Defluxion of Rhewm upon the Jaws and Tongue, which is cured by Evacuation, Revulsion, and Derivation of the Humors; as also by Strengthening and Drying the Brain: but because the Remedies are the same with those for the Palzey of the Tongue of which we shal now speak, they may be taken from thence.

Two pair of Nerves go to the Tongue: the Third pair to Exercise the act of Tasting and Sence: And the Seventh pair for Speech and diversity of Motion; by the Obstruction and Relaxation of the taste, cometh the Palzey of the Tongue, which is a Privation or Diminishing of the motion of the Part; and this useth to follow an Apoplexey when the hinder part of the brain is too moist, and then other parts of the body, and for the most part half the body hath the Palzey; sometimes it is only in the Tongue when the Nerves and moving Muscles are too moist: also by cutting of those Nerves there cometh a Palzey of which there is an example in *Avicen*, *Fen.* 6. *lib.* 3. *tract.* 1. *cap.* 12. in these words, *A certain man was Cupped and Scarified, and the smal hair like Nerve, was cut with Scarification, which is in the substance of the Pannicle joyned with the Tongue; wherefore the Tongue was relaxed.* We may suppose that these Cupping Glasses were applied to the Neck and hinder part of the head; for since the Nerves that move the Tongue, come from the beginning of the Spinal Marrow which is in the Neck: It is most certain that the Scarification was made so deep that some branch of them was divided.

But although the matter producing this Disease be Flegm, yet sometimes it is thicker and colder; sometimes thinner and hotter as the Humors which predominate in the Body; the knowledge whereof is from *Avicen*, *Fen.* 6. *lib.* 3. *tract.* 1. *cap.* 6. in these words, *And sometimes the redness of the Tongue and hotness shew that the matter is blood; and sometimes much watery spittle sheweth that*

the

the matter is thin, and when there is little benefit by Resolving Medicines, and much by binding and astringent.

This Disease, if it come from the Brain, and follow an Apoplexy, so that other parts also are affected is seldom cured, especially if the Patient be in yeers; but if it be single, and in the part only it is to be cured, and the easier if the Patient be yong.

The Cure of the Palsey in the Tongue, is by taking away the antecedent Cause, that is the humor abounding in the Brain, and by discussing and dissolving the conjunct cause, namely, the humor which is fastened upon the Nerves that move the Tongue.

The antecedent cause will be taken away by the Medicines prescribed in the Cure of the cold distemper of the Brain.

And first you must purge with Pills, or a Potion there mentioned. After if blood abound, and be either the Principal, or the assistant Cause of the Disease, take so much as age and strength will permit, then administer a Cephalick Apozeme, and if the Disease seem stubborn give a sweating diet; all which are formerly prescribed in the place mentioned.

After general Evacuations, come we to the Derivation of the matter, causing the Disease by Cupping and Vesicatories applied behind; as also by Cauteries. *Avicen* applied a Cupping-glass under the Chin, which is now also allowed.

Open the Vein under the Tongue, and it will profit, if before you have made general Evacuation to derive the Humor from the Muscles of the Tongue.

For the discussing and drawing forth of this Humor, let the Gargarism following be often used.

Take of *Flowerdeluce roots half an ounce: Origan, Sage, French Lavender, Rosemary, of each half a handful: Cubebs three drams: Liquoris one ounce: Boyl them in equal parts of white Wine and Water to a pint: Dissolve in the straining, Oxymel of Squils two ounces. Make a Gargarism; to which if it work not strong enough, you may ad two or three drams of the Decoction of Pellitory of Spain, or of Mustard seed. You may also ad Castorium if it offend not the Patient with the scent.*

To this end you may often rub the Tongue with Oxymel of Squils alone, or mixed with Mustard Seed.

A bag of Sage is much commended for to rub the Tongue with often, to which you may ad Mustard seed also.

Also these following Pills ought to be held often upon the Tongue.

Take of *the Juyce of Bettony and Liquoris, of each one dram and an half: Castor and Assa fœtida, of each half a dram: Nutmeg and Spicknard, of each one scruple: Incorporate them with Honey, and make them into the form of Lupines.*

Here also Gargarisms, Masticatories, and Errhines, which are prescribed in the Cure of the cold distemper of the Brain may be used.

Also for the strengthening of the Brain, and dispersing the reliques of the humors therein contained, Fumigations, and Pouders for the Hair, with Caps mentioned in the same Chapter are here to be used.

Lastly, You must prescribe the usual Medicines against encrease of flegm, namely *Syrupus Magistralis*, or ordinary Pills, with a strengthening Opiate, as is there declared.

The End of the Fifth Book.

THE SIXTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Teeth, Gums, Jaws, Pallat, and Wind-pipe, or Larynx.

The PREFACE.

THE *Parts contained in the Mouth and Jaws suffers divers Diseases, the Chief whereof we only desire to lay down, and to omit those that are ordinarily Cured by Chirurgeons: Therefore this Book shall contain Seven Chapters: First, Of the Tooth-Ach: Secondly, Of the Blackness and Consuming of the Teeth: Thirdly, Of the Eating away and Exulceration of the Gums: Fourthly, Of the Flux of Blood from the Gums: Fifthly, Of the Ulcers of the Mouth and Jaws: Sixthly, Of the Relaxation or Falling down of the Pallat: And, Seventhly, Of Angina, or Quinzy.*

Chap. 1. *Of the Tooth-Ach.*

Galen in his Fifth Book of the Composition of Medicines, *cap.* 8. & 16. of the Use of Parts, *cap.* 2. saith, That the Teeth are not only sensible in respect of their Nerves at the Root, and Membrane which inwardly covers their Cavity, but also in their proper substance; and saith, That the Teeth and other parts of the Mouth do taste, as also doth the tongue. And in his Book of Bones, *cap.* 5. he saith, Of Bones only the teeth are partakers of the tender Nerves of the Brain; and for that cause they alone do manifestly feel.

Therefore pain reacheth not only to the Nerves and inward Membrane, but also to the substance of the teeth.

The Tooth-Ach comes from a Flux of Humors, either Cold and Flegmy, or Hot and Watery, Salt and Sharp: hence comes the Distention or Convulsion of the parts: & these Humors either flow

to the Membranes of the Jaws, and of the holes wherein the Teeth are, or to the Nerve which is inserted in the root of the Teeth, or to the substance of the Teeth. Although some think that the Teeth cannot receive into their own substance afflux of humors and distention, because they are most hard and thick; yet this is taught by *Avicen*, *Fen.* 1. *Lib.* 1. *Doct.* 1. *Cap.* 5. and *Fen.* 7. *Lib.* 4. *Tract.* 1. *Cap.* 4. *And sometimes*, saith he, *there is matter which doth impostumate the Tooth it self.* Which Opinion he confirmeth and treateth of chiefly, *Fen.* 1. *Lib.* 3. *Tract.* 3. *Cap.* 1. in these words: *It is not as some Physitians think, that the Brain it self will not impostumate, reasoning thus; That which is soft, as the brain, and hard, as a bone, is not extended, and that will not impostumate which cannot be extended. But this is erronious, because that which is soft, if it be viscous or clammy, may be extended, and bones are impostumated, as* Galen *teacheth, & we will shew in our Chapter of the Teeth. Moreover, we say that whatsoever is nourished is extended and encreased with the nourishment, and it is likewise possible that it may be extended and augmented with its superfluity, and that is an impostume.* This *Avicen* teacheth from the Doctrine of *Galen*, who *Lib.* 5. *de comp. med. sec. loc. cap.* 8. saith, *Because the Teeth cannot grow without nourishment, they are only obnoxious to these two Diseases following, namely, of want, and superfluity of nourishment: by want of nourishment they grow dryer and thinner, and by superfluity of it, there will be an inflamation about the fleshy parts.* Thus *Galen*. But it is probable that pain is more usual (if it be vehement) in those parts which have most exquisite sence, namely, the Nerve and the Membrane in the hole of the Tooth next to the root, which doth not only suffer distention and vellication, but also sometimes inflamation of the humors flowing down; for if blood be mixed with other humors, then the pain hath two causes, namely, Distention, and Compression, which comes from the hardness of the Tooth, which the Membrane being inflamed cannot endure: and this Inflamation of the Membrane is for the most part accompanied with the inflamation of the Gums; which also is reckoned by *Galen* and *Avicen* among the causes of the Tooth-ach.

Now the Humors commonly flow from the Head upon the Teeth and parts adjoyning, sometimes from the inferior parts; for when any bad humors, especially watery, bred in any part, are abounding in the Veins, Nature desiring to cast off her burden, sends them to the weakest parts. And if the Teeth by reason of the distemper, foulness, or erosion are such, the flux will chiefly come thither. *Charls Piso* propounds an Experiment of this (who also thinks the Tooth-ach comes chiefly from a serous humor) *lib. de morb. ab illuv. ser. obs.* 7. where he reports that himself being troubled with the Tooth-ach for many daies, half an hour after he had taken a purging Medicine, vomited up above a pint of cleer water with such success, that ten yeers after he was never troubled with it. By which Experience he alwaies prescribed Medicines that purge water to them who were so troubled, and with good success. Moreover, he striveth to prove that it comes from this cause, by this sign, because they who have the Tooth-ach, do continually spet.

Besides the Causes mentioned, there are also Worms in rotten Teeth, and they breed of any matter which is contained and putrified in the Cavities, whether it be excrementitious, or come of putrifying meats, especially flesh and sweet meats, which by reason of their clamminess stick to the Cavities of the Teeth.

Others think that the Tooth-ach comes sometimes from wind contained between the Cavity and the Nerve, which doth violently stretch the inward Membrane, whence comes such intollerable pain.

The principal external causes of Tooth-ach, are all those things which cause defluxions; the chief are, Cold Air, South winds, staying in the Sun, or night Air, Surfet, and all faults in Diet. Ad to these, things that debilitate the part, and make it more fit to receive a defluxion, as rottenness and hollowness in the Teeth, which sometimes make violent pains.

The diversity of Causes is known by divers signs. For pain when it comes from hot humors is stronger, the constitution hotter, the age yonger, if Summer, there is heat sensibly in the part, and inflamation of the Gums often times; it is better for the use of cold, and worse for hot things. But if it come from a cold humor, the signs contrary to these will appear.

If worms are the cause of pain, it will be intermitting, coming and going often, and sometimes the motion of the worm will be felt.

When it comes from Wind, it is known by the excess of pain, and sensible stretching, and it ends in short time, and is easily cured with discussing Medicines.

The Prognostick is divers, according to the variety of the Causes; for that pain which comes from a hot, thin, watery, sharp and salt humor, is more violent, but sooner at an end, by reason of the sudden change of the humor; but that which comes from a cold and flegmy humor, is less, and lasteth longer.

A Tumor rising in the Gums or Jaws, takes away the pain of the Teeth, for the flux is carried to the external parts, so that it no longer lieth in the Internal Cavity of the Tooth.

The Cure must be directed for the taking away the Cause, and mitigating the pain; for although

Anodines

Anodines profit but little except the defluxion be ſtayed, yet ſometimes we are conſtrained not only to uſe them, but alſo Narcoticks or Stupefactives before we take away the Cauſe; therefore the humor flowing to the Teeth is to be revelled, evacuated, and repelled, and that which is there, is to be derived and diſcuſſed.

Firſt therefore, if the pain comes of hot humors, open a vein in the Arm on the ſame ſide, by which the humor flowing will be revelled. But if it come of cold, bleeding is not ſo good; but in regard of the defluxion it may be uſed, becauſe it is the chief reveller. But then you muſt take leſs blood, except there be a Plethory, in which regard, although it be from flegm, you may bleed freely according to *Galen*, who ſaid that a large evacuation of blood agreeable to the Plethory, is the beſt remedy for all pains, which we have found true by experience, not only in the paine of the teeth, but in other parts.

Let him purge the day following, with that which is proper for the humor; in the form of a Potion, if a hot, with Pills, if a cold humor be the cauſe of pain.

After this, if the pain continue, apply Cupping-glaſſes to the Shoulders with ſcarrification, or one great one between the ſhoulders without ſcarrification. A Veſicatory applied to the neck, or behind the Ears doth violently draw back the humors.

Alſo to hinder the defluxion, apply aſtringents to the Temples, as Emplaiſter of Gum Elemi, or Maſtich only, upon a piece of Silk, and heat with a braſs peſtle, the Shop Emplaiſter of Maſtich, or that againſt Ruptures called *ad herniam*. Or this following is good.

Take of *Frankinſence, Hypociſtis, Labdanum, of each one dram and an half: Pitch and Maſtich, of each one dram: Opium half a ſcruple: Oyl of Maſtich as much as is ſufficient: Make a Maſs of Emplaiſter.*

The Root of Comfry freſh and bruiſed, applied to the Temples doth intercept the defluxion very well.

There is alſo a good Plaiſter made of pouder of Allum, and Galls mixed with Pitch.

Riverius the chief Phyſitian to *Henry* the Great, had this Plaiſter as a Secret:

Take of *Cyprus nuts, red Roſes, Muſtard ſeed torrefied or parched, Maſtich and Terra Sigillata, of each one dram and an half. Let them be ſteeped in Vinegar of Roſes twenty four hours; then dry them: Opium diſſolved in Aqua vitæ three drams: Pitch and Colophonia, of each one dram: yellow Wax melted in the expreſſed Oyls, Henbane and white Poppy as much as is ſufficient: Make an Emplaiſter; apply it to the Arteries, and the part affected with pain.*

And becauſe the final Veins by which nouriſhment is carried to the Teeth do run by the Ears, you put Medicines into them for the Cure of the Tooth-ach; as Oyl of bitter Almonds to the Ear on the ſame ſide, or the fume of Vinegar, in which Penyroyal and Origan have been boyled.

Others put Vinegar into the Ear, by which the defluxion is mightily ſtayed, eſpecially if the flux be hot.

But in a cold defluxion, the Juyce of Garlick mixt with Treacle and dropt warm into the Ear, doth wonderfully aſſwage the pain of the Teeth. A Clove alſo of Garlick peeld and put into the Ear, is good.

Alſo aſtringents in the beginning of the defluxion, may be applied to the part pained, cold, if the matter be hot, but if it be cold, you muſt put hot things with your repellers: But in every cauſe, if the pain be great, you muſt mix Anodines with Repellers. As,

Take of *the Roots of Snakeweed, Five-leaved-graſs, and Tormentil, of each one ounce: the Leaves of Vervain, Plantane, and Maudlin, of each one handful: Cypreſs Nuts, Galls, and Acorn Cups, of each two drams: red Sanders, and Cryſtal, of each one dram and an half: red Roſes and Pomegranate Flowers, of each one pugil: boyl them in red Wine and Vinegar, and waſh the part grieved often therewith warm.*

This may be uſed in the beginning of a hot defluxion, but in a cold ad Cypreſs Roots, Box Bark, Ivy Leaves, and the like.

A plainer Medicine is made of Plantane and Roſe Water, with as much Vinegar like an Oxycrate.

Or boyl Galls in Vinegar, and waſh the Teeth therewith. Or,

Take of *the Roots of Cinkfoyl half an ounce: Willow Leaves half a handful: Galls two drams: boyl them in red Wine, and waſh the mouth. This ſtaies the defluxion, and takes away pain.*

Then you muſt uſe theſe Remedies, which aſſwage pain, and take away the cauſe, of which there is in Authors, and vulgarly a multitude: we will give you the beſt; of which you muſt make your choyce with this judgment, That thoſe which do not only diſſolve and diſcuſs, but alſo aſtringe and ſtop the flux, be uſed in the beginning and the encreaſe of the pain, but things that only diſcuſs in the ſtate and declination.

Take of *the Juyce of Houſleek and Nightſhade of each two ounces: Cow or Sheeps milk eight ounces: Oyl of unripe Roſes one ounce and an half: Opium and Saffron of each three grains:*

mix them and apply it warm with a cloth to the Jaw of the same side often.

Take *the Papp of sweet Apples two ounces: Bran steept in Vinegar three ounces: Oyl of Roses one ounce: Saffron half a scruple: Opium two grains: mix them for a Cataplasm to the part pained.* Or,

Take of *Barley and Bean meal of each three ounces: Oyl of Roses and sweet Almonds of each half an ounce: the juyce of Housleek one ounce and an half: Milk as much as is sufficient; make a Catap'asm to be applied often warm to the part.* Or,

Take *two whites of Eggs, beat them with Rose Water, and dip stuphs therein sprinkled with two drams of Pepper Powdered: Apply them to the pained side over the whol Cheek.*

But here observe, That you apply not Astringents to the Jaws if they be swoln, for it is to be feared, That the Humor wil so be Repelled to the Throat, and the Patient Choaked: An Example of which *Valesius de Taranta* giveth, of a Physitian troubled with the Tooth-Ach and Inflamation of the Jaws, who applied only Oyl of Roses with Vinegar, which brought him to a Squinzy and he died.

Other Waters may be made to wash the mouth: Thus.

Take of *the best white Wine four ounces: white Henbane Roots two drams: let them boyl to the Consumption of the third part: strain them, and ad one ounce of Vinegar: Varnish one dram: let them boyl a heat, and let the Mouth be washed often therewith.*

The plain Decoction of Vervain is Commended of many for the same.

Also a Decoction of Guaiacum made with Wine, or Water, and a little salt. Or,

Take of *Arsmart, and the barks of the Roots of Henbane, of each equal parts, boyl them in Rose Vinegar, and wash the mouth.*

And if the pain cometh from a Hot Cause, only boyl a Henbane Root in Vinegar.

If the Arsmart be too sharp, take a less quantity: Nay, you may leave it quite out in a Defluxion coming of a Hot Cause, and put Persicaria Macutata instead of it, which is Astringent and Cooling, and his juyce may be given safely at the Mouth in al Defluxions that are sharp and Chollerick: Also you may use the Leaves of Henbane instead of the Root.

Some use the Leaves of Henbane and Persicaria Maculata as a secret Magnetick Charm, they boyl them in Vinegar, they burn the Leaves being boyled with a gentle fire, and wash their Teeth with the Vinegar, and they say that as soon as the Leaves are burnt the pain wil be gone: But I rather think it is Cured by the Vinegar with which the Teeth are washed.

In the aforesaid Decoctions if the Vinegar be so sharp that the Patient can scarcely endure it, you may mix half Wine; and in a Cold Cause make them of Wine only.

Amatus Lusitanus, Commends Exceedingly Sandarach boyled in Vinegar and Wine, Thus.

Take of *Sandarak one ounce: Wine and Vinegar of each half a Pint: boyl them and let the strained liquor be held a long time in the mouth.*

The Decoction of the Roots of the great Nettle, with a little Nutmeg and Saffron made in equal parts of Wine and Vinegar, and held warm in the Mouth, doth wonderfully draw the Humors forth.

But at the first, the pain wil seem to encrease; but afterward, it wil be mitigated, and cease.

The Root of the sharp Dock gathered in the Spring before it groweth forth and dried, applied to the Tooth pained, doth appease the pain by a specifical propriety: which is confirmed by the experiment of *Forestus*, in *Obs.6. lib.4.* where he saith, That he applied this Root green, and cut in smal pieces to the Tooth of a Maid with good success; and that he Cured many other therewith after he had given them universal Medicines.

If the body be wel purged, and the head be not very ful of flegm, Masticatories to draw the Humors from the part affected wil do very wel: which are made either of Pelitory of Spain a long time held in the mouth and chewed, or as followeth.

Take of *Mastich, Pelitory of Spain, and Staphisagre, of each one dram: the seeds of Henbane half a dram: Pouder them, and mix them together, and make little balls thereof in a thin linnen Rag, which let him long chew, to make him spet.*

Commonly the Oyl of Cloves is used in a little lint to stop the Tooth if it be hollow, or otherwise, for so the humor adhering to the part is drawn forth and the part strengthened.

Oyl of Camphire is very profitable for the same purpose.

Or Dissolve eight grains of Camphire in one dram of the Oyl of Cloves; and use it as above.

But

But above al the reſt the Oyl of Box is extolled, which being but once dropt into the Tooth preſently ſtaies the pain.

This Oyl is made of Box cut in ſmal pieces, and then Diſtilled by deſcent, in two Veſſels, the one put into the earth, the other above, upon which you muſt make a ſtrong fire, and ſo the Oyl wil fal into the lower veſſel.

Beſides the aforeſaid Oyls, the Chymiſts commend the Oyl of the Hazel Nut uſed in the ſame manner.

If the pain be ſo great that it wil not away with the aforeſaid Medicines, you muſt come to Narcoticks, which are ſet down by Practitioners under divers forms; although their effect is as uncertain as others: but they do ſurely ſtupifie the Pain: Among the reſt Laudanum is chief, which doth not only appeaſe the pain, but alſo ſtop the Flux; and it may be given ſafely after univerſal Remedies to the quantity of three or four grains, if it be wel prepared.

Many Topicks made of Narcoticks are carried about; Theſe Two following are the beſt.

Take of *Opium, Myrrh, and Labdanum, of each one dram: Pouder them, and with white Wine boyl them into a Liniment, which put with lint into the Tooth.*

The Other is the Emplaiſter of *Riverius*, Chief Phyſitian to *Henry* the Great above mentioned.

If Worms be in the Teeth you muſt kil them with bitter things: And this following is good for that.

Take of *Aloes one dram: Camphire half a ſcruple: Aqua Vitæ half a dram: mix them and apply thereof with lint to the Tooth.*

It is to be obſerved, That the Teeth do ſeldom ake except they be hollow to the Nerve; therefore to take away the ſence of pain burn the Nerve with an actual Cautery, or with Aqua Fortis, or Oyl of Vitriol, which often done to a very hollow Tooth, it wil be broken in pieces, and ſo drawn forth.

If the Pain ſtil continueth, and the Tooth be very hollow, you muſt draw it out, and then the pain wil preſently ceaſe and never return.

But you muſt take heed that you draw not the Tooth when the Defluxion falls violently, or when the Head aketh, or the Gums ſwel, or when there is great pain.

And the Chirurgion is to be Admoniſhed, That he pul it not out violently at one pul leſt the brain be too much ſhaken, and the Jaw bone broken; from whence comes a great Flux of blood, a Feaver, and ſomtimes death.

After it is Drawn, cloſe the part with your fingers, then let the mouth be waſhed with warm Oxycrate; and let him take heed of Cold Air, leſt a new Defluxion fal upon the other Teeth.

But if the blood flow ſo faſt that it wil ſcarce be ſtanched (which ſomtimes happeneth by the breach of the Vein and Artery, without the breach of the Jaw: And *Varaiola* reports of one that had his Tooth pulled out without iron or force but with the fingers, and yet bled a pint at one time, and as much the next day from the Artery under the Gum) This Flux of blood is ſtopt by laying a hard peice of lint like a ball, and holding it down for one hour or two with the fingers: If that wil not prevail, apply burnt Vitriol, and lay a Ragg upon it dipt in Vinegar, and compreſs it with your finger til you make an eſchar. The laſt Remedy is an actual Cautery by which the blood wil preſently be ſtopped.

If any fearful people refuſe burning and require other means, you muſt try thoſe which Authors preſcribe; As Paſte made of the milk of Spurge, and the pouder of Frankincenſe mixed with a little Starch, the Root of Crowfoot, the Bark of the Mulbery Root, the pouder of Earth-worms, Pellitory of Spain ſteept in Vinegar, and the Root of Wild Cowcumber ſo ſteept, and the like. But the Leaf of Elleboraſter rub'd upon the Tooth is beſt; but you muſt not touch the other leſt they alſo fal out.

A Country man troubled with the Tooth-ach, was perſwaded by another to rubb his Tooth with Elleboraſter; he unwittingly rubb'd al the Teeth on that ſide, and preſently almoſt al his Teeth fel out: Therefore if any wil try this Medicine, I adviſe them to defend the other Teeth with ſoft Wax.

Although when there is a Tumor in the Jaws, the pain for the moſt part ceaſeth; becauſe the matter is carried outwards; Yet for the quick Diſſolving of it, uſe this Liniment.

Take of *Freſh Butter, and Hens Greaſe, of each one ounce: the Pouder of Flower-de-luce-Root, one dram: Saffron half a ſcruple: Oyl of Chamomel and ſweet Almonds, of each half an ounce: make a Liniment.*

A Cataplaſm made of Figgs, Bread and Vinegar, is better.

A Neck bruiſed, and laid to the Jaw, doth quickly aſſwage the pain.

This

This is the Cure of the Tooth-ach for the present. But if it return often, as is usual, you must use prevention, which is to hinder the breeding of those humors that flow thither; and let the Teeth be strengthened that they may be less capable to receive them. Therefore if it proceed from a hot cause, you must use such Medicines as were prescribed in the Cure of a hot distemper of the Liver and a hot Catarrh. If from a cold Cause you must take that course which is prescribed in the Cure of the cold distemper of the Brain; but you must strengthen the Teeth with the Medicines in the Chapter following.

Chap. 2. *Of the blackness and rottenness of the Teeth.*

MAny times the Teeth do contract a black, livid, or yellow color, from the evil Humors, cleaving unto them, which by long continuance do also corrode them, and make them rotten: and these Diseases come from filthy vapors that fly upwards, and are engendered of evil nourishment, or from the distemper of the stomach, which corrupteth good nourishment.

Quick-silver doth black the Teeth, whether it be used to the whol Body, as in the Pox, or only to the Face. Hence it is that women which use Mercury to make them fair, have black and ill color'd Teeth.

For the Cure you must first remove the antecedent Cause, and if it comes from evil humors in the stomach, they must be discharged, and the distemper of the parts which produce them must be corrected, and a good diet prescribed, and those things forbidden which do corrupt the teeth, especially sweet things.

Infinite Medicines are prescribed by Authors for making teeth white, which may be experienced. We are contented with one, which presently makes them white, cleanseth them, and keeps them from rotting, namely, the spirit of Sulphur, or Vitriol, in which you must dip a little stick, and rub the teeth with the end thereof, and then wipe them with a clout. In a great foulness you may use the Oyls by themselves, otherwise you must mix them with Honey of Roses, or fair Water, lest by the often use of them the Gums should be corroded. *Montanus, consil.* 113. reports that he learned that at *Rome*, of a Woman called *Greek Mary*: to whom when he came when he was young, and she twenty years old, and after when she was fifty, he found her almost in the same condition, and she confessed that her Beauty and strength was preserved by the Spirit of Vitriol, and that her Teeth which were very bad in her youth, were by that, made very fair and firm, and also her Gums; and also that she perceived her self by the use thereof to seem more youthful, and she used every day one drop or two to rub gently her Teeth and Gums.

The Ashes of Tobacco is very good also to cleanse and make white the Teeth.

For prevention, and to preserve the Teeth, first cleanse them with a Tooth-picker made of Mastich Wood, or the like; then wash the mouth with Wine, and rub the Teeth with this Pouder:

Take of *the Roots of Snakeweed, Allum, and white Coral, of each one ounce*: *Make a Pouder to rub the Teeth.*

Or wash them with this Water.

Take of *the fine Pouder of burnt Allum two drams*: *whol Cinnamon half a dram*: *Spring and Rose Water, of each four ounces*: *boyl them in a Glass upon hot Embers to the consuming of the third part.* *Wash the Teeth therewith every morning with a cloth dipped therein.*

Chap. 3. *Of the Erosion or eating away, and of the Exulceration of the Gums.*

THe Gums are eaten away and exulcerated by sharp corroding humors which come unto them. The parts from whence they come are, the Brain, Stomach, Spleen, and others. Men that have Diseases in the Spleen, are most subject to Ulcers in the Gums, as in the Scurvy; sometimes the erosion of the Gums comes from worms, or the corrupt humors which cause worms, so that it is a plain sign of worms when it continueth long. So saith *Fabricius Hildanus, Obs.* 59. *Centur.* 1. the Son of a Citizen of *Dusseldorp* was long troubled with erosion of the Gums, and died, after the use of many internal Medicines and Topicks: when he was opened we found abundance of worms, which had eaten through his Guts, and many in his Stomach.

The Cure is first to be directed to the antecedent cause, and the vicious humors are to be evacuated by blood-letting and purging; the sharp and hot humors are to be tempered with Apozemes, Juleps,

and

and Physical Broths, and the like. The flux of the same is to be diverted by Cupping-glasses, and Cauteries fitly applied. And lastly, the faults of the parts affected are to be corrected.

Afterwards you must use Topicks, which are to be altered according to the greatness of the disease, so that to a simple Erosion, you must apply only those which astringe and dry, as this Water following:

Take of *unripe Galls, Acorn Cups, and Flowers of Pomegranates, of each one ounce: red Roses one pugil: Allum three drams: boyl them in two parts of Forge-water, and one part of old red Wine, and wash the Gums often therewith.*

If the Erosion be not taken away with that, use this Opiate:

Take of *Dragons blood three drams: Lignum Aloes, red Roses, Spodium, and burnt Harts-horn, and Cypress nuts, of each one dram: Mirrh and Tobacco Ashes, of each three scruples: Allum one dram. Make them into Pouder, and mix them with Honey and a few drops of Spirit of Vitriol, or Sulphur. Make an Opiate, which must be spread upon linnen cloth and laid to the Gums at night.*

The Spirit of Vitriol and Sulphur, as they cleanse and whiten the Teeth, so they take away the rottenness of the Gums, either alone, or mixed with Honey of Roses, or Water, as in the former Chapter.

If the Ulcer be deep and foul, anoint with this:

Take of *choyce Mirrh and Sugar-candy, of each equal parts: pouder them, and fill the white of an hard Egg cut in the midst therewith; then tie it with a thrid, and hang it in a Wine-Cellar with a glass under it, and there will come forth a Liquor or Balsom, with which anoint often.*

But if by the use of the aforesaid, the disease be not cured, if the Tooth neer the Ulcer be rotten, you must pull it out, and then it will be presently cured, otherwise never.

Chap. 4. *Of bleeding at the Gums.*

SOmtimes abundance of blood flows from the Gums, either Critically, or Symptomatically, although the former be very seldom, yet it is somtimes; so we may see by Experience, and by reading. So saith *Dodonæus, Obs.* 14. A certain Quarrier having the smal Pox, had a flux of blood from his Gums, and being stopt, it made the Urine bloody, which being stopt it returned again to the Gums, and there continued till he recovered of the smal Pox. *Amatus Lucitanus, Curat.* 5. *Centur.* 5. saies that some have had benefit by bleeding at the Gums, and have been worse when it was stopped. Also *Zacutus Lucitanus, obs.* 86. *lib.* 1. *Praxis admir.* speaks of a Goldsmith who when he fell into a Feaver by laboring at the Furnace, being of a strong constitution, lost much blood by opening a Vein and amended, so that the seventh day (having had an itching of his Gums, and a pain in the lower Lip) the blood gushed from the Veins of his lower Gums for three dates in such a quantity that he lost above five pints more, and the more he bled, the more his Feaver abated, and when it was gone the blood stopped.

The Gums bleed Symptomatically when the blood is sharp, and the Liver or Spleen distempered: So that in the Scurvy this flux is ordinary.

Somtimes after a Tooth is drawn, there is so great a flux of blood by reason the Artery is torn, which is the root of the Tooth, that somtimes men have died thereof.

The Cure of a Symptomatical flux, is by bleeding and purging, and other Remedies for the bowels: As also by Topicks astringing, made into Gargarisms, Pouders, Liniments, or Opiates.

If it come from a Tooth drawn, you must first let blood and Cup to make revulsion, and apply astringents to the part, as a Cataplasm, of Bole-Armenick, Terra Sigillata, Sanguis Draconis, and the like astringents made up with the white of an Egg. Also Time alone with the white of an Egg is good. But if they do not suffice, you must lay the Patients finger upon the part, and let him hold it there till the blood congeal above the orifice of the Artery. If it cannot be stopt with sleight things use stronger. *Valeriola, obs.* 3. *lib.* 5. reports that an old woman who had a Tooth taken forth with the fingers only, had a violent bleeding upon it, from the Artery under the Gum; which he stopt with burnt Vitriol when other things failed; which is excellent both for astringency and burning. *Zacutus Lucitanus, obs.* 84. *lib.* 1. *Prax. Med. admir.* relates a History of one who having a grievous Tooth that ached, drew it violently forth, and after had a great flux of blood from the Artery torn, which when it could not be stopped by Blood-letting, Cupping, and Astringents, nor by laying on the finger, nor by burnt Vitriol, at last by his advice the place was filled with Gum Arabick, which stopt it in three hours space, for it hath power to stop, cool, glutinate, and dry. The same *Zacutus Obs.* 85. of the same Book, reports of a certain strong Soldier, who after great pain drew a Tooth violently, and bled much from the Artery under the Tooth, for two dates: the best Physitians use

all

al Astringents to the part, with Revulsives, and burn the Artery with a hot iron, but al in vain, for he bled stil even unto death: *Zacutus* being called, applied the Plaister of *Galen*, made of Frankinsence, Aloes, the hairs of an Hare poudered, and mixed with the white of an Egg, by which in a few hours the blood stopt and the Patient recovered.

Galen boasteth that he invented this precious Medicine, *lib. 5. meth. cap. 7.* and stopped the Artery in the Elbow: And *cap. 4.* of the same Book, and in his Book of Curing by Blood-letting, Chapter the last, he confirmeth the Excellency thereof by many stories.

Chap. 5. *Of the Ulcers of the Mouth, and Jaws.*

THe smal and superficial Ulcers of the Mouth are usually Aphthæ or Trush, although in *Galen* and *Hippocrates*, it is sometimes used for Ulcers in other parts; but they which are deeper are absolutely called the Ulcers of the Mouth and Jaws: Such as are in the French Pox.

These Ulcers breed of sharp Humors or Vapors coming from divers parts into the Jaws; so in malignant Feavers they often happen, or to those that have hot Livers, or foul Bodies: So the Children have the Trush, as *Hipp. aph. 4. sect. 2.* either from the sharpness of the Milk which Ulcerates those tender parts in its passage, as *Galen* teacheth in his Comment upon the same Aphorism, or from the corruption of the milk in the Stomach by which sharp vapors are sent to the mouth, as *Galen* affirms, *9. de compos. med. sec. loc. cap. ultimo.*

Now these Ulcers are divers, as some are slighter, some more dangerous; some are in Children, some in Men; some are joyned with Inflamation, some are without; these divers degrees are according to the variety of the Humors of which they come: For they proceed either of Blood, Choller, Flegm, or Melancholly, or Choler Adust, which hath not only a burning, but often a malignant quality, and begets evil conditioned Ulcers.

These Differences are known by their proper signs, for if the Ulcers be Reddish they come of Blood; if Yellow, of Choller: if White, of Flegm: if Livid or Blew, from Melancholly, if they stink they are foul.

As for the Prognostick.

Aphthæ, or Trush is eatily Cured, but deep Ulcers and putrid, called in Greek *Nomai*, are hardly Cured: And in Children they are more dangerous by reason of their tender flesh which they sooner devour: As also because strong Medicines cannot be applied unto them; hence sometimes Children die of them, when they are Malignant and putrid.

Also in respect of the Cause, those Ulcers which come of Flegm, are least dangerous: those that come of Blood or Choller, more: and those that come of Melancholly, most of al.

Black and Crusty Ulcers are deadly, especially in Children.

The Jaws Ulcerated in a Feaver are hard to be Cured, as *Hipp.* teacheth, 3. *Prog.* Because as *Galen* explaineth they shew the malignity of the matter.

The Cure is first by good Diet, which Cooleth and Dryeth, and hindereth the Generation of the antecedent Cause: Therefore when Children have it from their Suck, let the Nurse be changed, or eate good Diet, as also let her bleed and be purged, if need be: especially let her eate Cool Astringent things, as Quinces, Pears, Medlers, Services, Lettice, and Purslain, prescribe the same to men, and let them avoid sharp things, salt, and pepper.

Then you must look to the antecedent Cause, with Universal Evacuations according to the age; And first Phlebotomy doth powerfully revel the Humors, and tempereth their sharpness, by Cooling the whol body.

After this Cup and Scarrifie, put Horsleeches behind the Ears and under the Chin, and apply a Vesicatory to the Neck behind.

The next day after you have let blood, you must prescribe a Purge, agreeable to the Humor offending, and the age of the Patient.

From the beginning of the Cure use Topicks, called by *Galen* Stomatica, or Medicines for the Mouth: and at first they must be mild, as Gargarisms, Mouth-waters made of Plantane, Honeysuckle, and Roses; Water with Syrup of dried Roses and of Mulberies: or Decoctions of Plantane, Bramble Leaves, Knot-grass, Pomegranat flowers, Red Saunders, and the like; with Syrup afore mentioned.

And if there be Inflamation, you may do wel if you add the Juyce of Nightshade, Housleek, and Purslain, with as much Sal Prunellæ as wil not make it too sharp: Or a little crude Allum.

If there be no Inflamation, the chief & only Remedy is Spirit of Vitriol, or Sulphur, which may be used alone to Men, upon a little lint at the end of a stick, gently touching the part, by which it wil be presently Cured if it be a simple Aphtha: But to Children you must mix the Spirit aforesaid with Honey

Honey of Roſes, ſo that it may be but a little ſharp, and with a little Lint at the end of a Probe often apply it, and they wil be quickly Cured.

If the Ulcers are very painful and inflamed, they muſt Gargle with Milk often, or with an Emulſion of the Cold Seeds, or the Mucilage of Fleabane-ſeeds and Quince-ſeeds extracted with the waters of Roſes, Plantane, and Nightſhade.

If the pain wil not be removed with theſe Revulſions and Topicks, but the Humors are ſtil drawn thither by it, which cauſeth want of ſleep, and Conſumption of the body, which endanger the life; the laſt Remedy is Narcotick, which wil aſſwage the pain and ſtop the Flux, you muſt give it according to the ſtrength and age of the Patient.

I once ſaved a Childs life (by Gods aſſiſtance) of Four Yeers old with one grain of Laudanum, when his Jaws and Tongue were deeply Ulcerated with ſuch an Inflamation, that he could neither take Broth, nor Topicks, the Humors flowing ſo faſt from his mouth, that he lay night and day complaining without any reſt.

If the Ulcer be ſordid, Firſt waſh it with the Decoction of Barley, and Honey of Roſes; and in Children, with Milk chalybeated, or in which Steel hath been often quenched, mixed with Conſerve of Roſes; then uſe ſtronger Medicines, and principally Honey of Roſes above mentioned made a little ſharp with ſome drops of Spirit of Vitriol:

If theſe wil not do, you may ad to the Waters and Decoction above mentioned burnt Allum, the Collyrium of *Lanfrank* and Ægyptiacum, in a quantity agreeable to the Diſeaſe.

Laſtly, If it come from the French Pox, it wil not be Cured til the Pox be Cured.

Chap. 6. *Of the Relaxation of the Uvula, or Falling Down of the Pallate.*

THe Relaxation of the Uvula comes from a Rhewm falling from the Brain upon it, with which there is ſomtimes bloud mixed, and then there is an Inflamation alſo, and this often fals upon the Tonſils or Spongious Kernels; the Inflamation whereof ſhal not here be treated of, becauſe it is Cured by the ſame means, with the Inflamation of the Tongue, and of the Ulcers of the Mouth.

A Wateriſh Humor falling upon the Uvula or Collumella, doth ſo moiſten, ſoften, and relax it, that it wil be extended to the upper part of the œſophagus or Wezand, and cauſe a Nauſeouſneſs, and the Patient wil ſeem to have ſomthing in his Throat which he cannot ſwallow down, by which you may know it without looking into the mouth.

The Cure is firſt by the Antecedent Cauſe, that is, by Evacuating the Humors flowing from the Head, by Revelling and Deriving them with ſuch Medicines as were preſcribed in the Cure of a Catarrh.

The Chief Topicks are Aſtringents and Repellers, ſuch as were preſcribed in the Cure of the Ulcers of the Gums and Jaws, and ſhal be preſcribed in the Chapter following of the Cure of the Angina, to which afterwards you muſt ad ſome Reſolvers and Dryers: And though the Gargariſms in thoſe Chapters mentioned, are here good, yet when there is no Inflamation the uſe of Pouders is better; for with them the Vvula relaxed is more powerfully dried and Aſtringed.

And therefore, Firſt apply Pomegranat peels poudered, and after mix it with a little Pepper:

Or,

Take of *Red Roſes and Pomegranat flowers and Peels of each half a dram: the Roots of Snakweed and Tormentil, Galls and Flower-de-luce-Roots, of each one dram: burnt Allum, two ſcruples: make a Pouder. Ordinary Chirurgeons apply the Pouder of Long Pepper, but it is dangerous, for it is to be feared, leſt the Humors ſhould be drawn violently from the Brain, to the part.*

The Manner of applying this Pouder is to depreſs the Tongue with a Speculum Oris, and then blow up ſome pouder in your Uvula ſpoon: do this often til the Humor be ſpent: The inſtrument invented by *Fabricius Hildanus, Obſ.* 21. *Cent.* 2. is the beſt for this.

And if the Uvula relaxed cannot be brought to its former condition by theſe means, but continueth extended and painful; your laſt Remedy is to cut off a piece thereof: in which Operation you muſt take ſome Cautions. The firſt is from *Hippocrates*, 3. *Progn. Text.* 21. where he ſaith, *That Uvula's are Cut and Scarrified, and burnt when they are red and ſwoln, but not without danger; for an Inflamation followeth, and a Flux of Blood; but you muſt endeavor to extenuate theſe accidents by other means at that time: But when the Uvula hangs down, and the lower part of it is greater than the higher, and round, then it is ſafe to operate: but it is better firſt to adminiſter a Cly-*

ster, if time will permit. *Galen* in his Commentary upon these words of *Hippocrates*, saith that an Uvula inflamed, is not to be cut off, or scarrified; but after the inflamation is gone, so that the superior part is lessened. Another Caution is taken out of *Paulus Ægineta*, *lib.* 6. *cap.* 31. you must not touch the Uvula with an iron to cut it when it is livid or blackish, that is, when it hath malignity in it, and inclineth to be a Cancer. But out of the same Author we have a lawfulness of the operation, when they are long and white, or as *Hippocrates* saith, small at the top. We have an Example of the good success of this operation in *Amatus Lucitanus*, Obs. 65. Cent. 3. upon a Student who had his Uvula hung down like a thong, long, and without blood in it; which when Medicines could not cure, he cut off, and after touching the part with a little Spirit of Vitriol, he cured the Patient.

The third Caution is, That you cut not off too much; for then the Voyce and Breathing will be hurt according to *Galen*, 11. *de usu part. cap.* 11. and consumption and death it self will ensue as often is seen in the French Pox.

Chap. 7. *Of* Angina, *or Quinzie, or Squinzie.*

THe word *Angina* taken generally signifies every Disease of the Jaws and Throat, by which breathing and swallowing are hindered, when there is no defect in the Lungs and Breast.

And this is two-fold, a Legitimate and proper Squinzy; and a Bastard, or improper.

A Legitimate Squinzy comes from an Inflamation by which the Muscles of the Jaws and Throat being swelled, do stop and contract the waies of breathing and swallowing. This Inflamation doth either possess the Throat or the Jaws, called *Pharynx*. Both these parts have both internal and external Muscles. And though for the most part the *Pharynx* and *Larynx*, Jaws and Throat, do suffer in an *Angina* by reason of their neernels, yet one is more affected than the other: Hence many differences of Symptomes do arise, in respect whereof *Galen* in 4. *de loc. aff. cap.* 5. makes four sorts of *Angina's*, which the Grecians before his time named too curiously. One is called *Synagchen*; another *Cynagchen*; the third *Parasynagchen*; and the fourth *Paracynagchen*. If the Inflamation be in the inward and proper Muscles of the Larynx, it is called *Cynagche*; if it be in the inward Muscles of the Pharynx, *Synagche*; if in the outward Muscles of the Larynx, *Paracynagche*; and if in the outward Muscles of the Jaws or Pharynx, it is called *Parasynagche*.

Not only the Muscles of the Jaws and Throat are for the most part inflamed, as aforesaid, but also the parts adjacent, and the outward part of the Neck, as shall be said in the Diagnostick and Prognostick of this Disease.

In all these kinds of *Angina's*, when there is great danger by the difficulty of swallowing, then those things which are given use to fly out at the Nose, especially if they be liquid things, which are more hard to be swallowed at that time; because they spread themselves abroad, and therefore cannot so easily be comprehended of the Muscles to be sent into the *Oesophagus*, which Muscles cannot sufficiently contract themselves by reason of the inflamation; but solid nourishment being more corpulent, need only the superficial action of the Muscles, and are swallowed down by a small contraction of them. But it somtimes falls out that solid things are harder, and liquid things easier to be swallowed, which dependeth upon the diversity of the parts affected: For the Muscles of the Larynx are ordained for to swallow meat, as well as for the voyce; and when the meat is thrown into the *Oesophagus*, the Larynx is lifted up with the Tongue: But for to swallow drink we use the Tongue most, which while it is drawn inwards it brings the drink from the Lips to the Jaws. If therefore the Muscles that move the Tongue are more affected, it is harder to swallow drink. But if the Muscles of the Larynx are more hurt, it is harder to swallow meat.

Here by the way we must mark, that *Hippocrates* somtimes by the word *Angina*, doth understand only the inflamation of the Larynx, and so it is taken more strictly; of which there is an Example 6. Epid. Sect. 8. Text. 1. where he saith thus: Some had inflamations of their Jaws, some had *Angina's*; where by the name *Angina* he understands the inflamation of the Muscles of the Larynx, and distinguisheth it from the inflamation of the Jaws.

A Bastard *Angina* is without a Feaver, and is two-fold.

The first and most ordinary comes of Rhewm falling upon the Jaws and parts neer unto the Larynx.

The other comes from the Luxation of the *Vertebra's* of the Neck, by which the passage of the Gullet and Throat, is pressed and made narrow.

The Cause of a true *Angina*, as of other inflamations, is either pure blood, or mixed with Choller, Flegm, or Melancholly, which falls upon the parts aforesaid out of the Branches of the Jugular Veins, and this is either attracted by the heat or pain of those parts, or sent from other parts, because these parts are weak, loose, and fit to receive a defluxion, especially if the whol Body abound with humors.

humors, or the Head, or the parts neer the Jaws. For when evil blood aboundeth in the whol Body, and is carried unto the Head, if the Brain be ſtrong it will not receive it, but ſends it down by the ſame Veins into the lower parts; hence come divers inflamations as Parotides, or tumors under the Ears, Ophthalmies, Angina's, and the like.

Yong men are more ſubject to the Angina, than old, becauſe they have much Chollerick blood, and becauſe they are full bodied, and have much blood, eſpecially in the Head.

Some Authors ſay that men are more ſubject to Angina's than women; which it ſeems *Hippocrates* obſerved, 6. Epid. Sect. 7. where deſcribing an Epidemical Conſtitution, in which Angina's, Coughs, and Peripneumonia's, or Inflamations of the Lungs, were frequent, he affirmeth that few women were ſick, and he gives no other reaſon, but becauſe they went leſs abroad than men, and therefore were not ſo ſubject to injuries from the Air. Which Reaſon doth not agree with the univerſal Propoſition, That women are leſs ſubject to Angina's than men; but this may be a true Reaſon, becauſe women have colder Blood, a leſs Larynx or Wind-pipe, and narrower Veins of the Throat. For which Reaſon thoſe parts do not ſo eaſily receive defluxions.

The precedent Diſeaſes may be reduced to their internal Cauſes, as continual, putrid, burning, and eſpecially Epidemical Feavers, ſuch as were mentioned by *Foreſtus*, Obſ. 2. Lib. 6. which happened in the yeer 1517. at which time all that were infected had an inflamation of the Jaws, and died within ſixteen or twenty hours, except they were let blood within ſix hours. But in this *Angina* the Feaver is not Symptomatical, but Eſſential, and the *Angina* is ſymptome to it, becauſe part of the matter cauſing the Diſeaſe is ſent to this place; for in Epidemical Feavers, *Angina's*, Pleureſies, Inflamation of the Lungs, Diſenteries, and the like do happen, from ſome ſecret force and influence of the Stars, by which ſomtimes one part of the Body, and ſomtimes another is more affected.

Whatſoever can cauſe a flux of humors to theſe parts may be reckoned among the external Cauſes of this Diſeaſe: As Southernly winds, according to *Hippocrates*, Aph. 16. Sect. 3. in time of much rain, many diſeaſes happen, as long Feavers, Fluxes of the Belly, Putrifactions, Falling-ſickneſſes, Apoplexies, and Angina's. Alſo for the producing of this laſt, the inequality of weather doth much, when the parts are made looſe by heat; and by cold ſuddenly coming thereupon, the humors are ſent thither. A ſudden cooling after heat, and drinking of cold water doth the ſame, or if the Head be kept too hot or too cold.

The firſt Cauſe of a Baſtard Angina, is propounded by *Hippocrates*, 4. *de vict. rat. in morb. acut. text.* 39. where he ſaith, an Angina comes when in Winter and Spring time much ſlimy flegm falls from the Head to the Jugular Veins, which obſtructeth the paſſages of the Spirits with its cold glewineſs.

There is another Cauſe of a Baſtard Angina given by *Hippocrates*, 2. Epidem. Sect. 2. namely, a Tumor riſing in the Vertebra's of the Neck, and eſpecially in that which is called *Dens*, or the ſhape of a Tooth by *Hippocrates*, by which the *Vertebræ* are drawn inward, and therefore a Cavity appears in the external part. Now this Tumor either comes from flegm, removing by its encreaſe the *Vertebra* from its ſeat, or from blood falling upon the Muſcles, from whence comes an inflamation by which the Muſcles being contracted draw the *Vertebra's* inward, and then it is a true Angina coming from the inflamation of the ſaid Muſcles. There may alſo be a Luxation of the *Vertebræ* by a flegmatick humor looſing their Nerves, and making them ſlippery between the Joynts. And laſtly, it may come from an external Cauſe, as a fall, or ſtroak, as in other parts.

An Angina is generally known, firſt by its proper ſigns, namely, difficulty of breathing and ſwallowing, when there is no fault in the Breaſt and Lungs, and when pain is felt about the Jaws and Throat: and in a true Angina, redneſs, heat, and a feaver are ſigns.

The Differences may be diſtinguiſhed by their proper ſigns. In *Synanche* there is leſs difficulty of breathing, but great difficulty in ſwallowing, ſo that moiſt things can ſcarce be ſwallowed, but come out at the Noſtrils.

In *Paraſynanche* there is leſs difficulty of breathing, nay, very little, becauſe the inflamation of the external Muſcles of the Jaws doth little hinder reſpiration, there is pain and redneſs outwardly in the Neck, when the outward parts are inflamed.

In Cynanche there is great hinderance of Reſpiration, ſo as the Patient ſeems to be ſtrangled, and ſomtimes is ſtrangled for a ſhort time, and cannot breath but with the Neck upright, and the Mouth open.

The Jaws are much pained, yet there is no redneſs or Tumor inwardly in the Jaws, nor outwardly in the Neck; the Tongue is livid, black, and retorted, or bent by reaſon of the great fulneſs of the Veins about it. There uſeth alſo to be an acute Feaver, you may find an acute deſcription of this kind of Angina in *Hipp.* 3. *de Morbis*. And this is remarkable, which is obſerved of few, the inward Muſcles of the Larynx are not here only affected but the Lungs themſelves, from whence is difficulty of breathing and Suffocation, which *Dodonæus* obſerveth very wel, Obſ. Med. Cap. 18. where he relates a hiſtory of a Butcher who at noon felt a pain about his Jaws and Throat, and ſome diſh-

culty in swallowing, and died strangled the same night; his body being opened the substance of his Lungs were found turned into matter.

He gave other Examples, *Anno* 1565. in which yeer many had the Angina, with pain about the Larynx, which ceasing, they fel into Peripneumonia, and they being opened after death, had either their Lungs ful of Water or imposthumated; but nothing was perceived about the Larynx or its Muscles, which might shew an inflamation: And in these Causes he supposeth that the Larynx did not suffer principally, but by consent; and it is probable that the Aspera Artery, or rough Artery and its branches may be filled and extended with the Humor flowing from the head, and then if the Humor be sent to other vessels, the Aspera Artery and Larynx are freed from pain, and the Lungs are infected, and so an Angina may turn into a Peripneumonia: We may gather that the Lungs may be affected in an Angina from *Hippocrates*, 4. *acut. text.* 30. & 31. where he laies down Two kinds of Angina's from the diversity of the Humors; one, in which a Flux of Rhewm in Winter and Spring is carried to the Jugular veins; another, in which Choller abounds, which is in Summer and Autumne: of the last he speaks thus, When a hot and salt Defluxion comes from the head, being sharp it gnaws and ulcerates, fils with Spirits, brings an Orthopnæa or difficulty of breathing with the Neck stretched forth, and much drouth. Besides, there is no Tumor; the Tendons of the Neck behind are stretched like a Cramp, the voice is hindered, the breath is little, and often stopped, such have the Artery ulcerated, and the Lungs inflamed, so that they cannot breath: Thus *Hippocrates* he saith also that a hot and sharp Defluxion wil bring an Orthopnæa, because it biteth, ulcerateth, and filleth with Spirits, which are carried to the place hurt; hence comes the filling of the Lungs from whence Orthopnæa comes: When there is no room for receiving of the external Air, how much so ever the Lungs be enlarged. *Hippocrates* affirms this, 3. *de morbis*, where in the Cure of a Squincy he saith, the vein under the Breast or Papp is to be opened, for in this part there is a hot Spirit from the Lungs, and a little after he saith, You must make hast to cause Spetting, and that the Lungs may grow less, as if the Lungs were swoln by the hot Spirit contained therein. But it is most remarkable that when the Spirits are carried in great plenty to any part, there is also blood carried therewith, which if it flow in such a quantity that it cannot be wel governed by nature, it useth to make inflamations and imposthumes; from whence it is no wonder if in such an Angina the lungs become purulent or full of water.

In a Paracynanche the breath is less difficult than in a Cynanche, but more difficult than in Synanche, there is some redness and tumor about the Jaws.

A Bastard Angina is known by the Flegm, by want of Feaver, by the plenty of humors flowing to the mouth.

But a bastard Angina coming of a Luxation is known by the hurt motion of the Head and Neck, and by the Preternatural Cavity which appears in the Neck by reason of the Vertebra inwardly depressed.

The knowledg of the Causes is taken from the universal and particular signs of the humors predominating in the whol Body.

When an Angina comes of blood, there is heat and redness in the Face, and a great distention in the part affected. When it comes of Choller, the pain and heat is greater, with thirst, bitterness in the mouth, and sharpness. And if it comes from flegmatick blood, the pain and redness is less, and the Feaver little.

From the part affected some knowledg of the humor offending may be had. For Chollerick blood for the most part maketh an inflamation in the Muscles of the Larynx; but flegmy blood goes rather to the Jaws; for when the Veins of the Larynx are smal, only thin blood goes thither; but the Jaws being loose and spungy, do more easily receive the flegmatick humors.

Finally, From the time of the yeer you may know the peccant humor: For Chollerick Angina's do come chiefly in the Summer and Autumn, because in the Summer Choller breedeth, and in Autumn it is retained. But flegm breeds in Winter and the Spring, because the humors gathered in Winter are then melted and sent from the Head into the inferior parts.

As to the Prognostick. A true Angina is a most acute Disease, and very dangerous by reason of the hinderance of respiration, and for strangulation, which sometimes happens by the stoppage of the passages, by which respiration is made. Therefore by how much the greater the Constriction, so much the more danger, and so the first kind of Angina is most dangerous, because the inflamation of the internal Muscles of the Larynx doth more stop the passage. Whence *Hippocrates*, Aph. 34. Sect. 4. saith thus: *If a Suffocation comes presently upon a Feaver, and no Tumor in the Jaws, it is mortal.* Which Opinion he confirmeth in *coac. & progn.* saying that these kinds of Angina's do strangle in the same day, and in the second, third, and fourth.

The second sort of Angina, though it be very dangerous, yet is it not altogether deadly as the first, because the inflamation of the external Muscles of the Larynx doth not make so great and so sudden a constriction. Of this *Hippocrates* spake 3. Prog. Text. 17. thus: *Whatsoever Angina's do resemble others in pain, and make a Tumor and redness in the Jaws, are very deadly, and are of longer continuance than others if they be very red.*

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The third kind is leſs dangerous, becauſe the Breath is leſs hindered than the Swallowing, from the inflamation of the internal muſcles of the Jaws: But the Swallow hurt is not ſo dangerous. Of this *Hippocrates* ſpeaks in the Book above cited, Text. 18. in theſe words: *If the Jaws and Neck are red, theſe Angina's continue longer; but they are chiefly preſerved who have red necks and breaſts, and the holy fire without, not within.*

The fourth kind is leaſt and ſafeſt, becauſe the inflamation is furtheſt from the Throat. Hence *Hippocrates*, Aph. 37. Sect. 6. ſaith, *If a Tumor appear in the neck in him that hath an Angina, it is good, for the Diſeaſe comes forth.* He confirms the ſame in 3. Progn. Text. 20. thus; *But it is moſt ſafe to have a Tumor or redneſs come forth.*

Hippocrates ſeems to comprehend all theſe Differences in one Sentence, 6. Epid. Sect. 7. where ſpeaking of the ſigns of an Epidemical Angina, he ſaith: *In the ſum of all, To them that could only not ſwallow, the diſeaſe was mild, and eaſie to be endured; but it was deſperate to them who had withal a difficulty of breathing.*

If the matter cauſing the Angina be carried to the Lungs, either the Patients die, or elſe turn Fools, or Empyick, that is, impoſthumated between the Breaſt and Lungs; as *Hippocrates*, Aph. 10 Sect. 5. and 3. Progn.

In an Angina that is ſtrong, if the Patient foam at the mouth, it is deadly, Aph. 43. Sect. 2. for it ſhews a great ſtraitneſs about the Heart, and violent heat, from which the proper moiſture of the Lungs is ſqueezed forth, and carried to the mouth in a kind of froath.

They who have an Angina, if they ſpit not concocted matter, but a little, viſcid, ſlimy, and thick, are deſperate; *Hipp. in coac.*

The Tumors of the Jaws in an Angina ſuddenly vaniſhing without reaſon are deadly, *Hipp. in coacis.* Without cauſe or reaſon, that is, without a precedent Evacuation by Art or Criſis; for it ſignifies the returning of the matter inwatd, from whence a more dangerous Diſeaſe may be in the internal parts; or as it ſometimes fals out, the matter returning to the ſame part makes a ſudden ſuffocation.

The Cure of the Angina is made by the ſame Indications which are obſerved in the Cure of all Inflamations, ſo the humor flowing to the part is to be revelled and repelled, that which is there is to be derived and diſſolved: But if it cannot be diſſolved, it is to be digeſted and ſuppurated; all which may be done as followeth:

Firſt, appoint a ſlender, cooling, and moiſtening Diet, of Barley, Cream, Chicken Broth, or Capon Broath, with cool Herbs, and the like. If the Patient cannot ſwallow by reaſon of the narrowneſs of the Oeſophagus, ſo that from thence you fear loſs of ſtrength and death. You may free him from that danger by putting down a Catheter into the Oeſophagus, to which you may fit a Syringe by which you may ſend Broath into the Stomach. The Practical Phyſitians uſe nouriſhing Clyſters, by which ſome nouriſhment may be carried to the Liver from the Meſeraick Veins. Let his drink be Barley-Water, and other things uſed in acute Feavers. Let the Air be temperate, and without extremity, for the cold will ſtop the pores, and the hot will encreaſe the defluxion and inflamation. The Patient muſt lie with his head high, and his neck upright, that he may better breath: he muſt avoid much ſleep, as in internal inflamations; for as *Hippocrates* ſaith, Blood runs inward in time of ſleep, and ſo the confluxion of humors to the part affected will be encreaſed.

But ſince Angina is a moſt acute Diſeaſe, and ſometimes kills a man in one day, you muſt uſe great Remedies with much diligence. Therefore in what hour ſoever the Phyſitian comes, let him preſently let blood, on the ſame ſide that is affected, out of the Head Vein, or if that appear not, out of the Median, to a pound, or a pound and an half, or two pound, as much as his ſtrength will permit, for in this there is moſt hope; but you muſt not take all that blood away at once, leſt the Patient faint, by which he would be in danger; but by degrees, and intermiſſion, at every third or fourth hour. This kind of blood-letting is ſo neceſſary in this diſeaſe, that it may be hindered by no contrary indication. So in the flowing of the Terms, or at any other time you muſt take away blood in a great quantity. Of which we have a preſident in *Zacutus Lucitanus*, 2. *Prax. admir. cap.* 135. of a Woman which was in her ſeventh month great with Child, and was taken with a Squinzy; but being ſeven times let blood in one day was cured. If the Diſeaſe be not violent, you may firſt give a Clyſter; but if otherwiſe, afterwards.

While Phlebotomy is iterated, make other revulſions in the ſame day with Cupping-glaſſes, both dry, and with ſcarrification upon the ſhoulders and loyns, make frictions and painful Ligatures upon the extream parts.

Having bled enough, fall to purging the next day, not expecting the concoction of humors, becauſe the diſeaſe admits of no parley; therefore give one proper to the humor, nay, if the diſeaſe do conſtrain you, let blood, and give a purge, both in the ſame day; as *Trallianus* did by his confeſſion, *Lib. 4. Cap.* 1. in theſe words: *I truly remember that I, when occaſion required, opened a Vein in*

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the morning under the Tongue, and at night gave a purge of the extract of Scammony in Broth, and could scarce hinder strangulation for all that, and another the next day; after I had opened both the Arms, purged him again.

Now your purge must be of gentle things, if the disease come of Choller, lest the humors should be moved too violently, and so come to the part affected. Also if the Inflamation come only of blood, it is better to abstain altogether from purging. But if flegm run with it, make stronger Purges, and give Agarick, and Diaphœnicon with Senna; nay, in a strong flegmatick Angina you may rise to those Medicines which cause violent vomiting, and among the rest, the *Aqua Benedicta* of Dr. *Rowland* is the best, which given to the quantity of two ounces, doth wonders, and for the most part cureth the disease in the space of two hours. Moreover, it hath no evil taste, and so may easily be sipped up, which you cannot do in other Medicines, which by reason of their evil taste cannot be taken but at one draught by the Patient; therefore they can seldom be purged till the passages are a little opened. But that is supplied by often Clysters, and therefore they who cannot take *Aqua Benedicta Rulandi*, by reason of its heat, or their weakness (because they must be strong who take it) nor any other Medicine, must use often Clysters that are very sharp to draw down the Humors.

For the same Revulsion, it is good to apply Cupping-glasses to the Neck and Shoulders with scarrification, Frictions, and Ligatures, to the lower parts, and to wash their Feet with hot Water.

But a Vesicatory to the Neck behind, doth more strongly revel the humors flowing from the head, which you must do presently after blood-letting.

After Revulsions are sufficiently and diligently made, you must derive the Humor from the part, and first open the Veins called *Ranulæ* under the Tongue, it is commended by *Hippocrates*, *Galen*, and the Modern Physitians, by which the blood which doth immediately cause the inflamation, is drawn forth.

The Ancients in a desperate Angina, open the Jugulars, which though some late Writers have approved, yet it is out of fashion, being thought dangerous by reason of the bleeding, which can scarcely be stopped by reason of the largeness of the Veins. But Experience hath taught that this operation is not so dangerous if it be well administred. First then, bend the Patients Head on one side as much as you can til his chin almost touch his shoulder; then open the Vein without a Ligature, with a smal Orifice, according to its longitude, for so it will more easily cicatrize; and having taken a sufficient quantity of blood, bring the Head to its natural position, and so sometimes the blood will stop of its self. But you must presently apply *Galens* Emplaster described 5. *Meth. Cap.* 4. made of Hares hair, Aloes, Frankinsence, and the white of an Egg, so the flux of Blood is surely stopped. *Trallianus* reports in *Lib.* 4. *Cap.* 1. that he cured many of the Squinzy with opening of the Jugular Veins; and *Zacutus Lucitanus*, *obser.* 89. *lib.* 1. *Praxis admir.* tells of a Spaniard which was cured of a most violent Angina.

A Cupping-glass with Scarrification under the Chin, is good for derivation, by which *Zacutus Lucitanus*, *obs.* 88. *lib.* 1. *Prax. adm.* saith he cured a woman of a *Cunagche*, or dog Squinzy.

Scarrifications under the Jaws, and upon the Neck are good, if deep, by which means *Benivenius* saith in *lib. de abdit. morb. caus. cap.* 38. *Nicholas Rota* was cured of a desperate Angina; whose story *Semertus* hath fully related, *Pract. Med. lib.* 2. *part* 1. *cap.* 24.

While the aforesaid Medicines are used, the inflamation of the Throat and Jaws is to be allayed with Topicks, and they are to be varied according to the time, as in other inflamations, so in the first Repelling Medicines, are good made into Gargarisms that they may presently touch the part inflamed.

Take of *Plantane, Nightshade, and Woodbine Water, of each three ounces: Syrup of Mulberries three ounces: Sal prunellæ, one dram and an half. Make a Gargarism.*

Or of a Decoction thus:

Take of *Plantane, Sorrel, and the tops of Brambles, of each one handful: the Grains of Sumach half an ounce: one Pomegranate beaten with grains and peel: red Roses one pugil: make a Decoction to a pint: Dissolve in the straining Syrup of Mulberries, and the composition made of Nuts, of each one ounce and an half; Sal prunella two drams: Make a Gargarism.*

Concerning Gargarisms you must observe, that they are to be suspected, because the parts inflamed are moved thereby, which should be at rest; but you may remedy that if you hold the Gargarism in the Mouth, turning backwards, and not move it.

Without Gargling you may use the Spirit of Salt, Sulphur, or Vitriol, which mixed with Water, to qualifie their sharpness, are to be taken by little and little; for by passing through the part affected, they qualifie its heat, and being sent from the Stomach to the Liver and Veins, it allaies the heat of the blood; which Remedy is also good in the Inflamation of the Jaws and Tonsils.

While you use repelling Gargarisms, you must apply outwardly to the neck, loosning and resolving Liniments, that the matter may be brought forth; thus made.

Take

Take of *Oyl of Chamomel, Lillies, and sweet Almonds, of each one ounce: Hens grease and fresh Butter, of each one ounce and an half: Saffron one scruple: Make a Liniment to be applied with greazie wool.*

This Liniment will asswage pain, which if violent, it may be qualified also with a Gargarism made of Milk, or an Emulsion made of the four cold great seeds, or of Mucilages of Fleabane and Quinces, drawn with Rose water, adding Syrup of Violets, or Cassia dissolved in Whey, or in a Decoction of Marsh-mallow Roots.

After the beginning of the Disease when it encreaseth, or is at a stand, you must mix Digesters and Dissolvers with Repellers, which must be done the second day, because the Disease is most acute.

Take of *the Leaves of Hysop and Plantane, of each one handful: Liquoris, Raisons stoned, of each one ounce: fat Figs twelve: red Roses and Barley, of each one pugil: make a Decoction of a pint. Dissolve in the straining Honey of Roses, and Syrup of Violets, of each one ounce. Make a Gargarism.*

Observe, That as long as the Inflamation continueth, you must mix some things that repel with Dissolvers and Astringents, lest the part which by Nature is soft, should be more relaxed, and made more fit to receive a defluxion.

But outwardly you must apply Dissolvers most, with a Swallows nest, which by the Opinion of all Writers hath a specifical property against this Disease.

Take of *the pouder of a Swallows nest, and of Album Græcum, of each one dram: the pouder of Flower-de-luce Roots and Chamomel, of each half a dram: Hens grease and Oyl of Lillies, of each one ounce, yellow Wax a little: Make a Liniment.*

Or it may be made into a Cataplasm thus:

Take *one Swallows nest, Mallows, Violets, of each one handful: Althæa Roots, Lilly Roots, of each half an ounce: fat Figs three or four: Chamomel and Melilot Flowers, of each one pugil: boyl them and beat them; then put to them, Barley meal, Linseeds, and Fœnugreek, of each three drams: Saffron, one scruple: fresh Butter one ounce: Oyl of Chamomel and sweet Almonds, of each as much as will make a Cataplasm to be applied to the fore part of the Neck.*

In the mean while, you may use Eclegma's, or things to be licked, now and then, that the matter which breaths forth of the part, or falls upon it from the head, may be clensed.

Take of *the pouder of the Electuary of Diatragacanth frigid, two drams: Simple Diaireos one dram: Sugar-candy, and Penides, of each half an ounce: Diamoron one ounce: Syrup of Jujubes, as much as is sufficient. Make a Lohoch.*

If the Tumor will not be discussed, but tendeth to suppuration, which useth to be upon the fourth or fifth day, you shall assist it with the Cataplasm aforesaid, and other Emollients and Suppuratives, and he must hold those Medicines at the same time in his mouth, which was prescribed formerly for asswaging of pain. Or,

Take of *sliced Liquoris and Raisons stoned, of each one ounce: fat Figs six: Althæa and Quince seeds, of each two drams: the flowers of Chamomel, one pugil: boyl them in Hydromel. Dissolve in the straining, boyled Wine two ounces. Make a Gargarism.*

It is also good to hold Cassia new drawn, in the mouth, that by degrees it may dissolve into the Throat, for it asswageth pain, dissolveth and maturateth.

If the Tumor come to suppuration, which may be known by the decrease of symptomes, and will not break, let the sick man, or some about him, put their fingers into his mouth, and endeavor to break the imposthume, which if it cannot be done, let his mouth be wide opened with a *Speculum oris*, and then open the imposthume with a crooked incision knife called a Bistort. Then let the Patient hold down his Head lest the matter fall upon his Lungs: after, wash the Ulcer with Barley Water and Honey of Roses, Water and Honey called Hydromel, or Wine and Honey called Oinomel; after this, dry it up with Allum Water.

Others put a Wax Candle anointed with Oyl of sweet Almonds into the Oesophagus to break the Aposthume; which if they cannot do, they use a sharp wooden knife, or at last an incision knife.

Others touch it with Oyl of Vitriol, which presently breaks it, *Arcalanus* opens it with a Lancet fixed at the end of a stick lest it should touch other parts. *Faventinus* commends the same, in these words; *Take a little round stick, & in the end of it, fix a little sharp Iron as long as half a finger; then open the mouth, and put a stick between the Teeth, then let him open the imposthume with the former Instrument: when it is open, let him bend forward with his mouth open, that the matter may come forth.*

Schenkius out of *Dovynetus*, used to break an imposthume with the Decoction of Agarick, and confirmeth it by the following History taken out of *Dovynetus*, *Apolog. lib. 3. cap. 1. A Noble Woman called* Gabriella Goutier, *Lady of* Saulton, *being taken with a Squinzie in Autumn, which*

is

is most dangerous, I remembred that I read in Aetius, lib. 15. cap. 6. *that Agarick doth destroy hidden impostbumes, or draw them forth; presently I took Agarick, and cut it and steeped it in the decoction of Althæa with the fourth part of white Wine, and Figs, and a little Ginger, with a little Syrup of Marsh-mallows, and gave it to the Lady to drink, commanding that she swallow it not down suddenly, but hold it in the mouth a little, if she would be cured: she obeyeth, and while I was talking with her, behold abundance of white stinking matter came forth of her mouth, in so much that her daughter that held the Bason fainted, the other people ran away, others came and took away the matter, others perfume the room; which done, I came to the Patient, and found her delivered from the impediment in her voyce, difficulty of breathing, and her feaver, and out of all danger.*

If the matter seem to tend to the external parts, you must open it outwardly; which *Lanfrank* saith he did with good success, *Chir. maj. doct. 2. tract. 3. cap. 5.* in these words: *Because the Chyrurgeon is much confirmed by good experience, I will tell you what befel me in the City of* Millane, *with a Lady of fifty five yeers old, which had a flegmatick Squinzie in the whol Throat, inwardly and outwardly, but outwardly it appeared most swoln, and she could neither speak nor swallow: being sent for, I felt her pulse, and found her exceeding weak; touching the part affected I found the matter very deep, and that she was more likely to be choaked, than that it should break either internally or externally: then I got ready my Rayfor, and touching the place with my fingers I found ripe matter between the Chin and the Epiglot, and there I made a deep incision, by which I drew forth a great part of the corrupt matter, but willingly left a great deal behind, for a reason known; then her breath grew better, and pulse stronger; then giving her Broath, a great deal of it came forth of the wound: then I invented a silver pipe which should pass the wound being put into the mouth, and by which she should receive her nourishment. I used Mundificatives, and Maturatives to the whol Throat and Neck, till I drew out of the wound a great piece of viscous matter, and stinking, like a Gut as long as my finger, which was condensed by heat; which taken away, the place did no longer stink, and the Patient began to cheer up: but I continued to mundifie, and after with Incarnatives and Cicatrizers, I healed up the wound, and the Patient was cured.*

Here may be related the History of *Beniven* before mentioned, of one in a Squinzy, who was left of other Physitians, and was cured by him with deep scarrification under the Jaws, and in the Neck, from whence much matter flowed.

If the Apostbume break inwardly in the Mouth, let it be clensed with Barley Water, and Hydromel (as is said.) But sometimes the Ulcer is foul, and then you must use stronger, thus made:

Take of *Scabious and Agrimony, of each one handful: Cypress nuts one dram: Flowerdeluce Roots, and round Birthwort, of each half an ounce: Mirrh half a dram: red Roses two pugils: boyl them in Hydromel to a pint; strain it, and wash the part ulcerated therewith.*

This Decoction is very good to clense an Ulcer; but if it be not sufficient, use the Collyrium of *Lanfrank*, which is wonderful.

After it is well clensed, you must endeavor consolidation with Bole-Armenick mixed with Honey of Roses for an Eclegma, with Frankincence and Mirrh.

It comes to pass sometimes that the Inflamation decreasing, the Tumor will neither be dissolved, nor suppurated, but grow harder; in which case you must use Emollient and Suppurating Cataplasms, made thus:

Take of *Althæa, and Briony Roots, and of the wild Cucumer, of each one ounce: Mallows, Pellitory, Origan, and the lesser Centaury, of each one handful: fat Figs, six or seven: Linseed and Fœnugreek, of each one ounce: Boyl them, beat them, and strain them, and then ad of the pouder of a Sallows Nest burnt, and of Album Græcum, of each three drams: Brimstone one dram: fresh Butter, and Ducks Grease, of each one ounce: Oyl of Dill two ounces. Make a Cataplasm.*

For a Conclusion, we will speak something of *Laryngotomia*, or cutting of the Throat, which Ancient Physitians mentioned, and the Modern approve and confirm by experience: As when in a desperate Squinzy when the Patient is almost choaked, an incision is made in the rough Artery, by which there is a passage for Air into the Lungs, and for vapors coming out of them. This *Avicen* alloweth, Fen. 9. lib. 3. cap. 11. *Paulus*, lib. 6. cap. 33. *Rhasis*, 3. continentis. *Alsaharavius*, *Avenzoar*, *Albucasis*, and *Halyabbas* in their proper Chapters.

Galen sets down the same out of *Asclepiades*, in his Introduction, chap. 13. Of the Modern *Brassavolus*, comment. in lib. 4. Of *Hipp.* concerning Diet in acute Diseases, Sect. 35. saith, that he made this operation with his own hands, and good success.

But

But this is seldom used by Chyrurgeons for fear of disgrace through the death of the Patient; for men are more apt to make the operation the cause of death than the disease, although the Physitian have been very careful, and foretold them the danger.

Moreover, In a desperate Angina the Lungs are often affected, and full of humors, whence comes suffocation; and then the incision of the rough Artery will not profit. Which danger *Jerom Fabricius ab Aquapendente* observing, being a good Chyrurgeon, saith that he never undertook this Operation, nor any other in his time. But he confesseth it may be used, so that the Lungs and rough Artery be not full of filth: and he sheweth the manner of it in its proper Chapter most exactly, from whence any one may take it.

The End of the Sixth Book.

THE SEVENTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Breast.

The PREFACE.

BY this name Thorax, *or Breast, we mean those parts only which serve for breathing; for although the Heart be contained in the* Thorax, *yet the Diseases thereof shall be set down in a Book by themselves. But in this we will only speak of those which hinder breathing, and hurt the part of Respiration; as Asthma, Pleurisie, Peripneumonia, or Inflamation of the Lungs, Empyema, and Phtysis; and we have ordained proper Chapters for each of them.*

Chap. 1. *Of* Asthma, *or Difficulty of Breathing.*

THe Breath is hindered by divers Causes, either by sympathy, or propriety of part.

The hinderance of breathing by propriety called *Idiopathica*, comes from the Lungs distempered, and therefore every Disease of the Lungs hurts their action, which Diseases are either in the substance of the Lungs, or in the Vessels thereof.

In the substance of the Lungs come inflamations, pimples, imposthumes, ulcers, and sometimes a drying, and atrophy of the part; sometimes a serous watery humor is suckt into the spungy substance of the Lungs, and hinders their free dilatation; sometimes, though seldom, there is a schirrus, a stone, or hard swelling in them.

In the Vessels of the Lungs, there are often obstructions, which hindering the free passage of the Air, cause difficulty of breathing.

Breathing is hindered by sympathy or consent from other parts, which are not only neer, but remote, so the Membrane that goeth about the ribs being inflamed, or the Diaphragma, or Mediastinum, the breath is hindered. So by custom there is a great and often breathing when the heart is inflamed, as in Feavers; and on the contrary, when the Heart is cold, as in dying men, it is diminished and

and ceaſeth; the ſame happeneth in ſwouning or ſyncope, when the action of the Heart, and conſequently Reſpiration ceaſeth.

So in the Empyema, or Dropſie of the Breaſt, when matter or water is collected in the Cavity of the Thorax, the Dilatation of the Lights, and Reſpiration is alſo hindered.

So the Muſcles of Breathing being hurt, hinder Reſpiration, as in wounds and tumors of them, eſpecially in an Apoplexy, when the influence of the Animal Spirits is kept from them.

Moreover, The Inflamation of the Muſcles of the Larynx makes difficulty of breathing in a Squinzy.

So alſo the Diſeaſes of the Hypochondria do hinder Reſpiration by conſent, as tumors of the Liver, Spleen, Sweetbread or Pancreas, do by their weight draw down the Diaphragma to which they are joyned, and ſo hinder the motion of it. Alſo vapors and wind ſent from thoſe parts compreſs the Diaphragma, and hinder its action, from whence comes a flatulent Aſthma. The ſame happeneth by the abundance of wind or water contained in the belly of an Hydropical man, and compreſſing the Diaphragma. Laſtly, Vapors coming from the Mother hinder Reſpiration, from whence this diſeaſe is called, Suffocatio Hyſterica.

Among the aforeſaid hinderances of Reſpiration, the Aſthma is handled by it ſelf, becauſe the other depend upon other Diſeaſes; they ſhall be mentioned in their places.

Although Aſthma uſed generally, comprehendeth in a large ſignification, all kinds of difficulty of breathing; yet it ſignifies more ſpecially that ſhortneſs of breathing which comes from the ſtuffing of the Lungs, and the obſtruction of the Bronchion, or Griſtles of the Wind-pipe; which of its ſelf eſſentially is without a Feaver, although ſomtimes it be joyned therewith. And again, it is ſubdivided into three other kinds; as firſt, *Dyſpnœa*; the ſecond called alſo *Aſthma*; the third *Orthopnœa*.

Dyſpnœa is a difficulty of breathing, in which the breath is drawn oftener and thicker, from the ſtuffing of the Lungs. This is leſs than Aſthma, or Orthopnœa, becauſe the matter obſtructing is leſs, and it rather ſtops the ſubſtance of the Lungs, than Griſtles or Bronchia: hence it is that there is no ſnorting at all, which comes from the commotion of the humors contained in the Bronchia, with the Air continually paſſing through.

Aſthma is a great and often breathing, in which the Diaphragma, the Intercoſtal Muſcles between the Ribs, and of the Abdomen, are violently moved, joyned with ſnorting and wheeſing. For in a true Aſthma properly ſo called, the Bronchia of the Lungs are filled with flegm, which (as is ſaid) being moved by the Air, make that noiſe.

Orthopnœa is a great difficulty of breathing, in which the Patient cannot breath but ſitting, and with the neck extended upright; and the aforeſaid Muſcles are not only moved vehemently, but alſo thoſe of the Breaſt and Shoulders.

The names *Dyſpnœa* and *Orthopnœa*, as we ſaid of Aſthma, are uſed commonly for all difficulties of breathing, which happen in Pleureſies, or Inflamation of the Lungs, or the like.

The ſame may be ſaid of *Apnœa*, which doth not only ſignifie a depravation of breathing as the former, but alſo a diminiſhing or aboliſhing thereof; and this happeneth in ſyncope, Hyſterical Paſſions, and ſtrong Apoplexies.

The humor which cauſeth an Aſthma, is for the moſt part flegm, which falls from the Head into the Lungs, and obſtructs the Bronchia or Wind-pipe. Somtimes it comes from crude and ſerous humors brought by *Arteria Venoſa* into the Lungs, and if theſe flow to the Bronchia, they produce a true Aſthma with ſnorting; but if to the ſubſtance of the Lungs, or ſmooth Arteries, they cauſe a baſtard Aſthma without ſnorting.

This kind of Aſthma, which is unknown to vulgar Phyſitians (who will acknowledg no other cauſe but a defluxion from the Head) is confirmed, not only by not ſnorting, but from the thick and turbulent Urine of the Patient at that time, eſpecially in the fit, becauſe ſome part of thoſe thick and crude humors in the Veins is ſent to the Reins and Bladder. And ſome Aſthmatical men are ſubject to ſtoppage of Urine, and when they are ſo, they are free from it. But when the fit of the Aſthma comes, the difficulty of Urine ceaſeth, becauſe the matter of the diſeaſe contained in the Veins goes from one place to another: We have alſo ſeen ſome ſubject to a flux in the Belly, who while they were ſo, were free from the Aſthma; but when that ſtopped, the Aſthma returned. Moreover, this kind of Aſthma which is without ſnorting, is ſo directly oppoſite to bleeding, that when a Vein is opened in the fit, as ſoon as it bleedeth, the Patient begins preſently to breath better, and in the end, or after a little ſpace, they are cured of their fit. And finally, theſe kind of Aſthmatical men, are for the moſt part of an ill habit of body, and have an œdematous humor in their feet, which ſheweth that the cauſe of the Aſthma at that time came from the Liver, and is contained in the Veins, ſo that ſomtimes a Dropſie followeth in many. Hence *Aretæus* reckoneth a wind in the Midriff, and belchings, without reaſon among the ſigns of an Aſthma at hand, which certainly do come from a crude matter moved in the Midriff.

That flatulent matter doth of its ſelf ſomtimes produce another kind of Aſthma, which is called

Asthma flatulentum, or *Hypochondriacum*; when many thick vapors rising from the Hypochondria, do compress the Diaphragma, and hinder its motion, whence comes great difficulty of breathing, without snorting.

The Knowledg of this Disease, and its kinds, may be by what hath been said.

In a Dispnœa, the breath is thick, without noise or anhelation, and with less trouble.

In an Asthma the Breast is more heavy, the Breath thicker and quicker, with anhelation, snorting, and wheesing.

But in Orthopnœa, the Patient cannot breath but with his neck upright, and if they lie down, they are ready to be choaked.

The Signs of the Causes are these:

If Asthma come from gross humors gathered in the Lungs, the difficulty of breathing comes by degrees, by little and little, and is continual.

But if Humors come at a distance from other parts into the Lungs, the difficulty of breathing is not continual. For albeit Asthma which comes from matter contained in the Lungs, useth to be encreased by external causes, as Anger, Southernly winds, and the like; yet in Asthma which comes from matter flowing from another part, the encrease is more manifest. If this matter come from the brain, there is a manifest Catarrh; but if no signs of a Catarrh appear, you must conjecture that the matter comes by the Veins to the Lungs, and the swelling of the feet, and evil habit of body called *Cachexia*, is a sign that the Liver is affected.

If a thick humor be contained in the Bronchia of the Lungs, the Respiration is with noise and cough; as also by spitting the disease ceaseth, or is diminished.

If the Humor be in the Veins, or substance of the Lungs, there is no noise, and there is seldom any spitting by Cough.

As to the Prognostick. An Asthma is a Chronical disease, and very hard to be cured, and often ends in a Cachexia or Dropsie. Yong men are sometimes cured, and not without great labor, but old men never. Infants except they be speedily cured, die by a Catarrh, which followeth:

They who grow crooked upon an Asthma or Cough, die before they come to ripeness of age, because the gibbosity hindereth the convenient growth of the breast, nevertheless get their due encrease and bignes, but having not room enough to dilate themselves; from whence the heat of the Heart being not sufficiently fanned, the Patient dieth.

A Pleurisie, or Peripneumonia coming upon an Asthma, is deadly, because the Lungs being weakned by a long disease, cannot resist so great a disease coming thereupon, and expel the matter.

The Cure of the Asthma is two-fold, namely, in the Paroxysme, and out of it.

In the fit, presently you must open a Vein, a Clyster being given, if the blood do seem any way to abound: for when the Veins are empty of blood, the Respiration is more free. But if the disease be elder, and blood hath been often drawn, it is better to abstain from bleeding, because by diminishing the natural heat, it will encrease flegm.

It is good to open the Veins in the Ancles in this disease, coming by consent from other parts.

After bleeding, or if it be omitted as not thought fit, you must purge flegm, with the things prescribed in the Cure of the cold distemper of the brain, putting to them alwaies things proper for the breast as much as may be.

Vomits, although disallowed by some in this disease, yet are they most convenient, as frequent experience hath taught, and sometimes the fit is taken away with a vomit only.

Among these the chief is *Aqua Nicotiana*, or Tobacco Water, given in the quantity of an ounce; and it may be made into a Syrup with Sugar: In want whereof you may use the Salt of Vitriol, *Aqua benedicta Rulandi*. Now the reason is excellent why Vomits do so much good in this disease. For while the thin humor falling from the head insinuateth it self into the Aspera Arteria, and the Bronchia of the Lungs; and the thick falls into the Stomach, and is there so fixed that it can scarcely be taken away. And while the weak heat of the Stomach doth stir the matter, thick vapors are produced, which puffing up the Stomach, compress the Diaphragma, and cause difficulty of breathing. Hence it comes that when the Stomach is emptied, the fit ceaseth, or is much less. Moreover, An Asthma sometimes (may often, according to *Sennertus*) cometh of crude humors about the Liver, and in the Veins, which are carried by the *Vena Arteriosa* into the Lungs, and compress the Bronchia, from whence cometh an Asthma. For the evacuating and revelling of these humors from the Lungs, a Vomit is very good. As also for this cause, the Remedies purging humors downward are very excellent.

The Juyce of our Flowerdeluce, doth gently move and purge downward, taken to the quantity of half an ounce, with one ounce of Hippocras, which *Platerus* in his Observations saith he hath used with good success.

You may give two ounces of the juyce of Flowerdeluce, if the former did work sufficiently.

Also

Also you may use sharp Clysters often for revulsion. But they must be given in smal quantities, lest by filling the Bowels the Diaphragma be compressed.

You must also use Frictions to the inferior parts, and apply many Cupping-glasses thereon, as also to the Neck. Afterwards you must extenuate and dissolve the thick humors, and discuss the vapors that come from them. For which purpose you may give a spoonful of Cinnamon Water, either by its self, or with Syrup of Violets: as,

Take of *Cinnamon Water two ounces*: *Syrup of Violets one ounce*; *or instead of that, mix with the Water one ounce of Oxymel to discuss the humors better.*

It is also profitable to give three, four, or five drops of Chymical Oyl of Sage, Rosemary, or Annis seeds with a little Wine; or sprinkle therewith the Tablets of Diatragacanth frigid, and so let the Patient eat them.

Others commend one scruple of Saffron given in a spoonful of Wine. Also *Aqua Clareta* thus made is very good.

Take of *Aqua vitæ four ounces*: *Water of Colts-foot and Scabious, of each two ounces*: *Cinnamon six drams*: *strain them through an Hippocras Bag. Let him take two or three ounces.*

Tobacco taken in a pipe hinders the fit; so doth the Leaf chewed: and also the smoak of Cloves in a pipe.

In the mean time you must use expectorating Medicines, which bring forth the thicker matter upwards. As,

Take of *the Syrup of Horehound, Liquoris, and Coltsfoot, of each two ounces*: *Oxymel simple one ounce. Mix them, and let him lick it by little and little.*

Take of *washed Turpentine one ounce*: *Ammoniacum two scruples*: *Flower of Brimstone one scruple*: *mix them into soft pills, of which let him take one every second hour with half an ounce of the Syrup of Hysop.*

Take of *the Oyl of sweet Almonds new drawn without fire six ounces*: *Sugar Candy two ounces*: *Mix them for a Lambitive.* Or

Take of *candied Elicampane three drams*: *Sugar-candy half an ounce*: *Syrup of Hysop and Horehound, of each one ounce*: *Ammoniacum dissolved in Aqua vitæ half a dram. Mix them for a Lohoch.* Or,

Take of *Conserve of Violets and Elicampane, of each six drams*: *the pouder of the Electuary Diatragacanth frigid, Diaireos Solomonis, of each one dram*: *Syrup of Violets and Maidenhair, of each as much as will make a Lohoch.*

Take of *Althæa Roots one pound*: *Elicampane four ounces*: *Quinces, or Marmalet thereof, sixteen ounces*: *boyl them in Water till they are dry*: *Beat them and strain them, adding two pints of Honey*: *boyl them again gently. Take them from the fire, and ad of Cinnamon one dram*: *flower of Brimstone half an ounce*: *Liquoris perfumed with Musk and Rose water two drams. Make a soft Electuary*; *of which let him hold now and then as much as a Hazel nut in his mouth*: *'tis also very good to take half an ounce thereof morning and evening, when the fit is off.*

Also you must anoint the Breast with Mollifying and discussing Oyntments and Liniments, thus made:

Take of *the Oyl of Chamomel, Flowerdeluce, and sweet Almonds, of each half an ounce*: *fresh Hens grease, one dram*: *the Pouder of Marsh-mallow roots and Flowerdeluce, of each one dram*: *the meal of Linseed and Fœnugreek, of each two drams*: *Gum Ammoniacum dissolved in Wine one dram and an half*: *Wax, as much as is sufficient. Make a Liniment.* Or,

Take of *the Mucilage of the seeds of Quinces, Line, and Fœnugreek drawn with Scabious and Coltsfoot Water, of each six drams*: *the Pouder of Flowerdeluce root and Hysop, of each half an ounce*: *Saffron one scruple*: *Oyl of Lillies and sweet Almonds, of each two ounces*: *Wax as much as will make a Liniment.*

If the fit be long, clap a Vesicatory to the hinder part of the head.

Out of the fit you must stop the Defluxion, and also cut, clense, and expectorate that which hath fallen into the Lungs.

For staying the defluxion, all those Remedies are good which were mentioned in the cure of the cold Catarrh.

But you must take a Caution concerning some of them.

First, In Apozems, Syrups, or the like, you must not make them two hot and dry, which by consuming of the thin parts, may make the remainder thicker, and so the Disease will be worse, But you must rather mix moisteners, as Raisons, Figs, Liquoris, Jujubes.

Secondly, Instead of Head Medicines, you must use things fit for the Breast, above mentioned.

Thirdly, For the Derivation of the Humors that abounds in the Head, use Errhines, Sternutatories, Gargarisms, or Apophlegmatisms: Which last are not so proper, by reason of the neerness of the

part

part by which the humor runs to the Lungs. But Errhines and Sternutatories may be used safely.

Fourthly, To strengthen the Head, and dry it, Fumigations are there commended; which are not so proper in this, especially if taken in at the mouth and nostrils, because they make the breath shorter, and bring the fit. But with them you may air the Patients Caps, without, from the Chamber.

For to cleanse and expectorate the thick Humors that stick to the Bronchia of the Lungs, the Medicines already mentioned, or these following may be used.

Take of *Elicampane root, and Polypody of the Oak, of each half an ounce: the Leaves of Origan, Calamints, Hyssop, Savory, Maidenhair, Scabious, and Coltsfoot, of each one handful: the seeds of Marsh-mallows, and Cotton, and Carthamus, of each three drams: Liquoris and Raisins stoned, of each six drams: Jujubes, Sebestens, and fat Figs, of each five, make a Decoction to a pint and a quarter of Hydromel; dissolve in the straining a pound and a quarter of white Sugar; make a Syrup well boyled, for a Lambitive.*

You may make a better and cheaper Syrup thus.

Take of *Elicampane Roots three drams: Spanish Tobacco one dram: infuse them a whol night in six ounces of Aqua Vitæ: in the morning strain them, and ad of the best Sugar four ounces; stir it well upon the fire, and ad of the syrup of Erysimum or Coltsfoot two ounces: Oyl of Sulphur as much as will make it sharp: make a Loboch.*

These following are proper for to unstuffe and cleer the Lungs.

Take of *Ammoniacum, and Bdellium, dissolved in Vinegar of Squills, of each half an ounce: Flower of Brimstone three drams: the leaves of Coltsfoot and dryed Savory, poudered, Diaireos simple, of each half a dram; with syrup of Hyssop and Oximel of Squills make a mass of Pills; of a dram whereof make six Pills, and let him take three of them two hours before supper twice in a week.* Or,

Take of *Aloes Succatrine, half an ounce: Myrrh and Ammoniacum, of each half a dram: Saffron half a scruple: Flower of Brimstone half a dram: with the syrup of Coltsfoot make a mass of Pills, of which let him take a dram two hours afore dinner for some dayes.*

Let the Water which is taken out of a hollow Briony Root, be distilled in *Balneo Mariæ* to eight ounces, whereof mix half an ounce of Spirit of Vitriol or Sulphur, let him take every day a spoonful fasting.

Take of *Tobacco Leaves, Hyssop, white Horehound, and Maiden-hair, of each two handfuls: the Roots of Flower-de-luce and Liquoris of each half an ounce: boyl them to a pint and an half, dissolve in the straining of white Sugar one pound, of the best Honey half a pound: make a syrup: well boyled, clarified, and perfumed, with a little Saffron and Cinnamon, let him take a spoonful or two every morning.*

The Oximel and Syrup of Tobacco invented by *Quercetan*, prescribed in his Dispensatory, is of the same vertue.

The Tincture of dry Tobacco is drawn with Aqua Vitæ, a little thereof mixed with Honey, and that held in the Mouth as big as a Pease or Bean, swallowing it by degrees, this draws Flegm in abundance from the Stomach and Lungs.

Hogs Lice, called Millepedes, or Aselli, in number twelve, put into a linnen Cloth, are to be steept in white Wine, and then strained and so given to be drunk, and do in a short time cleanse the Lungs.

Oleum Sacchari doth powerfully dissolve thick glutinous Humors in the Lungs, and causeth expectoration: But the Compound Oyl following is best.

Take of *the Roots of Flower-de-luce, and Elicampane poudered, of each half an ounce: the Pulp of Dates and Raisons, of each three drams: Citron and Orange peels, of each one dram and an half: Benjamin two drams: Saffron one dram: infuse them two dayes in the spirit of Wine well rectified: then take of the liquor by inclination, dissolve as much Sugar Candy poudered as you can therein, then fire the spirit of Wine stirring them continually till it comes to a liquor as thick Oyl, then mix as much Oyl of Sulphur as will sharpen it.*

A Decoction of Red Coleworts taken many dayes with a little Sugar, doth help the Asthma.

But the Juyce of Red Coleworts with Sugar of Roses, or Syrup of Coltsfoot, taken in form of a Julep for many dayes is better.

The Spirit of Sulphur doth dissolve slymy Flegm, and open the Bronchia if four or five drops are taken in Broth, or convenient Syrup.

Turpentine is much Commended for this use, given often to two or three drams with the Oyl of sweet Almonds or Conserve of Violets, or you may make it into the form of an Opiate thus.

Take of *Turpentine well washed in Coltsfoot Water one pound: fat Figgs half a pound: Penides four ounces: Oyl of sweet Almonds one ounce: mix them into an Opiate.*

Saffron in Sawce is good for the Breast; also a Junket made of Mustard seed and Honey doth expectorate.

Oxymel

Oxymel also with Agarick taken two spoonfuls in a morning, doth purge the Lungs.

The flower of Brimstone made into Pills with fresh Butter, given three daies together to one scruple, doth much help the Asthma. *Lac Sulphuris* doth the same better in eight grains, which is the greatest dose.

Also these Tablets following are excellent.

Take of *the pulp of Marsh-mallow roots, and of the greater Comphry, of each two ounces: flower of Brimstone two drams: the flower of Benjamin half a dram: Sugar dissolved in white Lilly Water eight ounces: make Tablets, which let the Patient hold often in his mouth.*

The Decoction of an old Cock is commended, and it is thus made:

Take of *the Roots of Elicampane, and Flowerdeluce, of each half an ounce: Hyssop and Horehound dried, of each six drams: Carthamus seeds one ounce: Annis and Dill seed, of each two drams: Liquoris and Raisons stoned, of each three drams: the pouder of Fox Lungs prepared two drams. Beat them, and fill the belly of an old Cock therewith; then boyl him in fifteen pints of Water till his flesh comes from his bones. After it is well strained, set it in a cold place that the thickest may settle, and the thin may be taken off; of which let the Patient take six ounces with one ounce of Oxymel simple.*

If you will make it purging, you may ad two or three drams of Senna for every dose, or half an ounce of Manna. Or if you will have it stronger, you may sometimes put in some Electuary that purgeth flegm.

Platerus prefers the following Preparation of a Cock before the rest:

Take *an old Cock, kill him, pull him, and draw him; stuff him with these things following: Fox Lungs fresh, or prepared and dried, one ounce: Raisons stoned, and Figs, of each two ounces: Elicampane one dram: Hyssop, Savory, Horehound, Thyme, Calaminth, Penyroyal dried, of each one dram: Fennel and Annis seed, of each one dram: Carthamus seeds bruised and Polypody, of each half an ounce: white Tartar one dram: Salt half an ounce: two yolks of Eggs: fresh Butter half an ounce: Cut them and bruise them, and sew them into the Cock, boyl him till his flesh comes from his bones in a large vessel with so much Water as you may need to ad no more: then strain it, and put to ten pints, one pound of pure Honey that it may not quickly corrupt. Let him take a Porrenger full every morning; in which let him dissolve Manna and new drawn Cassia, of each half an ounce, continuing it for a month and longer; which will be the better, if presently after he take a dram of Turpentine with Penides in form of a Bolus, or otherwise.*

Ludovicus Septalius in his Practical Observations condemneth these Cock-broths as unprofitable, or hurtful: His Reasons are, Because they do not answer Experience, and have been used in vain by him and other Physitians of *Millane*. For by long boyling, the nitrous parts (by which those Broths are thought most to profit) do settle, and are lost in the straining: but the slimy, glutinous, thick, and fatty, from the skin, feet, wings, musculous and nervous parts do remain. Hence the matter is made thicker, and lets fit to be expectorated.

But *Septalius* his Experience, must not be preferred before so many famous Physitians Experience, both old and modern. For if it did not profit some which he and others have cured, many other things might hinder, as namely, the evil disposition of the Patient, and contumacy of the disease, or other things not well ordered which concerned the Cure, or the Medicine it self not well made. And whereas he saith, that the nitrous parts do fall to the bottom by long boyling, and are lost in the straining, it is ridiculous; for only the Earthy parts do settle, but the nitrous part once taken into the liquor, is never separated. Hence it is that the longer you boyl Broth the Salter it is. But this Salt doth cut, extenuate, and open, it is so far from incrassating being salt. Neither hath the flesh, or other parts of a Cock, such a glutinous substance as he imagineth, as you may find in Neats feet, or Calves feet, but rather an attenuating quality, because it is full of nitrous substance. And if purging and altering Medicines be made according to the Precepts of Pharmacy and Art, they do leave all their strength in the Decoction, because dayly Experience teacheth us that such Broth of an old Cock doth purge. And if we may oppose our Experience to that of *Septalius*, we can truly say, that we have found admirable effects of these Broths in violent Asthmaes and Chollicks. But this we use to alter in these Broths; We give many draughts in a day lest it should be spoiled by keeping. But this is the Example of what we prescribe in this disease:

Take of *the Roots of Elicampane and Flowerdeluce, of each one dram and an half: Hyssop and Coltsfoot, of each one handful: Liquoris and Raisons stoned three drams: fat Figs four: Senna three drams: Polipody of the Oak and Carthamus seeds bruised, of each half an ounce: Annis seeds one dram and an half: Boyl them with the third or fourth part of an old Cock: make a Broth for twelve or fifteen daies.*

By this Purging Wine following, *Platerus* cured a Woman of a Dyspnœa, inclining to a Dropsie:

Take

Take of *Flower-de-luce-Roots one ounce: Elicampane, and Squills prepared, of each half an ounce: Horehound one handful: Elder Bark and Danewort, of each one dram: Senna one ounce and an half: Agarick two drams: Ginger one dram: shake them well together, and ad of Wine four pints, boyl them a little: she drank hereof six dayes together when she went to Bed, the Dyspnœa ceased, the Tumor vanished, and she was finely Cured.*

But we must observe that we repeat Purging often in this Disease, under divers formes, left nature should be used too much to one Medicine: So Clensing, Cutting, and Expectorating Medicines, and the rest are to be alterated for the same reason.

Chap. 2. *Of* Pleuritis, *or a Pleurisie.*

A Pleurisie is either True; or Spurious, called a Bastard Pleurisie.

A True Pleurisie is the Inflamation of the Membrane that goeth about the Ribs of the internal intercostal Muscles.

But a Bastard Pleurisie is the Inflamation of the external intercostal Muscles.

There are also other pains of the Side and other parts of the Breast which are improperly called a Bastard Pleurisie.

When the *Mediastinum* is inflamed, the Lungs cleave to the ribs, or when serous humors flow from the Head to the Membranes of the Breast, or when Wind doth tear the Muscles or Membranes of the Breast, or vapors riling from the Stomach, as in the Worms.

We have said that in a true Pleurisie not only the Membrane Pleura, but also the internal Muscles are inflamed, because it is impossible but the Inflamation of the Membrane should be communicated to the contiguous Muscles.

Besides, Others do affirm that the Lungs are inflamed in every Pleurisie, and confirm their Opinion by Authority, Reason, and Experience: The Authority is that of *Hippocrates, lib. de loc. in homine*, where he saith, That a Peripneumonia is when both parts of the Lungs are inflamed; but if only one part be inflamed, it is a Pleurisie. Also Reason may seem to confirm this, for the signs of a Pleurisie are also the signs of Peripneumonia; namely, a Cough, continual Feaver, difficulty of Breathing, and spetting of blood.

Also the Prognostick and Cure is the same in both.

They say moreover, That they have found by experience in the opening of those who have died of Pleurisies that their Lungs appeared alwayes to be inflamed.

It is to be granted that in many the Lungs are affected as wel as the Pleura, for the Defluxion may easily fal upon both; because the Lungs are fastened to the upper part of the Pleura: but we must avouch that often the Pleura alone is only affected, and not the Lungs: or at least they are so lightly affected, that the Disease cannot be said to be an affect of that part. The Authority of *Hippocrates* in this, is cast off by some as false, and contrary to many of his own Assertions, in which he acknowledgeth the Pleura only as the part affected; especially in his 1. *lib. de morbis.* where he often saith, That Choller and Flegm do stick to the side, and cause vehement pain. But *Mortianus* doth reconcile this; saying, That *Hippocrates* speaks in that place of a Peripneumonia which comes of a Defluxion from the Head, a portion whereof fals upon the Pleura, and he cals it by the name of a Pleurisie, that he may distinguish that which inflameth one part of the Lungs, from that which inflameth both: For the same nature of a Disease being in both the Pleurisie and Peripneumonia, makes the likeness of Symptoms in both, being both from inflamation, and nearly adjoyned.

And though many who have died of Pleurisies, have been found to have their Lungs affected, it is not to be concluded that it is so in al; for the most vehement Pleurisies which use to cause Death, do many times turn into a Peripneumonia. But many do witness, and we have found by experience, That in many bodies dead of Pleurisies, the Pleura only hath been found putrified.

It may be questioned, Why the Pleura, rather than other Membranes, should be inflamed? But the Answer is from *Hippocrates*, 1. *de morb. sect.* 124. according to the Division of *Salius*, where he saith, That the side is a very weak part, because it is naked from flesh in respect of other parts, and hath nothing to rest upon; therefore when the humors are moved and inflamed, their Defluxion is easily sent thither.

The matter causing a Pleurisie is for the most part Chollerick Blood which doth easily penetrate a thick Membrane; As *Avicen* speaking of a Pleurisie, saith, Except the Humor be thin and Chollerick it cannot pierce into the Membrane. Other Humors may also Cause this Disease so they have a serous Chollerick Humor mixed with them for a Vehicle: I say other Humors not Excrementitious but Natural, which are contained in the form of blood, and are called either blood it self, or blood that is watersh, or melancholly.

But

But you muſt note, that thin Humors make a true Pleuriſie, and thick, a Baſtard Pleuriſie.

Now this blood is carried by the Veſſels which nourith the Breaſt, eſpecially the *Vena Axillaris*, and *Azygos*; and if it offend either in quantity, quality, or motion, it is caſt upon the Membrane and Muſcles adjoyning.

The Difference of Pleuriſies is taken from the part affected, and the Cauſes.

In reſpect of the place of the pain, it is divided by *Hipp.* 2. *acutor.* into an aſcending Pleuriſie, namely, when the pain reacheth more to the Throat; and a deſcending Pleuriſie, when it goeth down to the Hypochondria. Sometimes it is extended more towards the back, of which *Hipp.* 3. *de morbis* makes mention; and ſometimes it comes more forward.

In reſpect of the Cauſe and the Humor offending, it is called either Sanguineous, coming of blood, Chollerick, Phlegmatick, or Melancholick.

There is alſo another excellent Difference made by *Hippocrates*, 1. *acut.* where a Pleuriſie is divided into a dry and a moiſt Pleuriſie. A dry one is that in which there is little or no ſpitting, not only in the beginning, but continuance of the Diſeaſe; of which there are divers Cauſes, as the Crudity of the matter, the thickneſs and ſlimineſs thereof, the weakneſs of the faculty, the obſtruction of the Bronchia, or the vehemency of pain. But a moiſt Pleuriſie is that in which there is abundance of ſpittle, from the beginning of the diſeaſe.

The Diagnoſis or knowledg of this Diſeaſe, is by the ſigns, as ſaith *Galen*, 5. *de loc. aff. cap.* 8. and elſwhere; who reckoneth Five.

1 A pricking pain of the ſide.
2 A continual ſharp Feaver.
3 Difficulty of breathing.
4 A hard pulſe like a ſaw.
5 An often troubleſom Cough.

A pricking pain is chiefly in the Membranes, and comes from a Chollerick matter, and this pain poſſeſſing the ſide, ſtretcheth it ſelf into the parts adjacent, one while to the Throat, another while to the Hypochondria, by the continuity of the Membrane, which covers the whol Cavity of the Breaſt. By this ſign a Pleuritis is diſtinguiſhed from a Peripneumonia, in which there is no pain, or very little of the ſide, except it be joyned with a Pleuriſie.

A continual ſharp Feaver hath its original from a Flegmon or Sanguineous tumor in ſome part neer the Breaſt, and therefore is ſymptomatical: although ſometimes an eſſential Feaver be joyned with a Pleuriſie; and gives it ſometimes a being, for it often happeneth in the beginning of continual Feavers, that the blood boyling in the veins is expelled by Nature unto ſome part which is moſt fit to receive it; as the ſides, and there it breeds an Inflamation. The ſign of this is, That the Feaver firſt ſeizeth upon the Patient, and the ſecond or third day after the pain is in the ſide. But when the Feaver is ſympromatical, then the pain in the ſide comes firſt, but the Feaver a little after.

Difficulty of breathing doth neceſſarily follow in this diſeaſe, becauſe the parts inflamed cannot ſufficiently diſtend themſelves to draw in a great quantity of Air, which is requiſite for the cooling of an inflamed heart.

The Pulſe is hard becauſe the Membrane is affected, and ſtretched forth, which alſo diſtendeth the Arteries, and they therefore make that difference of pulſe, called *Serratilis*, like a ſaw; for when you lay many fingers upon the Arteries of the Pulſe, one part ſeems to be more lifted up than the other, ſo that it ſeems to repreſent a ſaw.

A troubleſom Cough follows a Pleuriſie, becauſe Nature doth continually ſtrive to expel that which is troubleſom from the part affected: as alſo ſome of the matter ſweateth from thence into the Lungs, which moveth the expulſive faculty, whence the Cough cometh.

There is alſo a ſpitting of blood as another ſign, which is neither in al Pleuriſies, nor at al times of the Diſeaſe; therfore it is not reckoned as a proper ſign. They who ſay that the Lungs are alwais affected in a Pleuriſie, do affirm that the blood is ſpit from the Lungs, and they deny that it can paſs from the Membrane about the Ribs to the Lungs, becauſe it is very thick; and alſo the Membrane about the Lungs is of the ſame Nature, and cannot therefore be pierced by that blood which is without the Veſſels. But *Galen* doth cleerly confute theſe, 5. *de loc. aff. cap.* 3. where he firſt ſhews that the matter contained in the Cavity of the Breaſt may be taken into the Lungs, and be ſent upwards, by two cleer Examples. The one is of thoſe who have received a wound in the Breaſt that pierceth into its Cavity; for if an injection of Honey and Wine be made into the wound, and it be preſently cloſed at the orifice, in a little time the injection will be coughed up and ſpit forth, and the Patient wil have the taſte of it in his mouth. Another Example is taken from a Fracture of a bone, when the skin is not broken; which while the Callus is growing, and the broken bones begin to glutinate, that blood which flowed to the part affected is carried forth to the skin, and goeth through it, ſo that it moiſtneth and ſouleth all the rowlers and ligatures about the part. *Galen* alſo ſhews the manner how blood, matter, or the like, being contained in the Cavity of the Breaſt may be taken through the lungs,

namely, by the extream outward orifices of the Bronchia or branches of the rough Artery, which are spread through the Lungs, and end in the superficies of them.

Although the orifices of the Vein Arterial, and Artery Venal are also carried to the superficies of the Lungs, yet the orifices of the Bronchia are more large and open than they. For by how much greater the Body or Trunk of the rough Artery is, than the Trunk of the Venal Artery, or Arterial Vein, by so much the greater are its branches than theirs; and its orifice than theirs; because all these Vessels are equally divided and distributed into the whol body of the Lungs. Moreover, the substance of the rough Artery, and its Bronchia or branches, are Cartilaginous or grisly, from whence it is that they cannot close together so much as other Vessels; and their orifices are more constantly open, by which they can better receive the matter from the Cavity of the Breast.

But *Galen* teacheth that the matter contained in the Breast is taken through at the time of breathing, when the Thorax is straightened; for then the Thorax doth press those things that are in the Cavity of it, and drive them into the Lungs, so that some part of them at least is carried into the orifice of the Bronchia. Neither is the softness of the Lungs, which yeild to a compression, and therfore cannot be forced to receive the matter, any hinderance. For this softness is the cause why all the matter is not received; yet it is no obstacle but some part thereof may be received in, although the greatest remain in the Cavity by reason of the softness aforesaid. Let us ad to this Doctrine of *Galen*, the wonderful providence of Nature, which hath found out waies, not only manifest, but also unknown, and sometimes incomprehensible, by which she useth to expel things hurtful; as we said of the matter in Fractures, which is purged forth by the insensible pores of the Muscles, and of the Skin.

A bastard Pleurisie is distinguished from a true, in that the pain is encreased when the Patient lieth on the contrary side, in a true Pleurisie; for then the part inflamed is pulled, and more distended by its own weight; but in the other, the Muscles external being inflamed, are compressed when the Patient lieth on the same side, and therefore he hath then greater pain.

The times of this Disease, are known by these signs following:

In the beginning of it, all the symptomes are weaker, the pain and feaver smal, there is a dry Cough, and very little and crude spittle: In the encrease of the Disease, the feaver and pain encrease, and there is more spittle. In the state or height the symptomes are more vehement, want of rest, dotage, pain ot the Head; and if the disease will be cured, there is much concocted spittle easily raised. In the declination, the spittle is perfectly concocted, a free spitting, and decay of all symptomes.

The signs of the Causes, are generally taken from the temper of the Patient, the time of the yeer, the Country, the Diet, and the like. But especially these things shew that a Pleurisie comes of pure blood, red and bloody spittle, a stretching and pricking pain, the fulness of the Veins, especially about the Forehead and Temples, redness of the whol face, a full Pulse, thick and red urine, sometimes with a blew crown.

These signs shew that it comes from Chollerick blood, yellow spittle, a burning feaver, great thirst, a hard and quick pulse, a more acute pricking pain, greater watchings and restlesness, bitterness of the mouth, a thin and very yellow urine.

These signs shew that it comes from Flegmatick blood, a white, viscous, or frothy spittle, sweet and slow in coming forth, a remiss feaver, little thirst, much spittle, a less, but heavy pain, more sleep, a little pulse, and not so hard, pale and thick urine.

These signs shew that it comes of Melancholick blood, black spittle, tough and slow in coming forth, a less pain and feaver, a red urine and dark, a dry Cough, a black and rough tongue, a belly bound.

The Prognostick is taken first from the remission or vehemency of the Symptomes. For if pain, difficulty of breathing, and a feaver be not great, they signifie that the disease is gentle; but if the pain be great, and the Cough, and there is nothing raised up, and if the feaver be violent with great difficulty of breathing, you must look upon it as a desperate Pleurisie.

A smal pulse, quick, and hard, foreshew death in a Pleurisie. And *Galen* saith that none of this have been cured; *Gal. 4. de præsag. ex puls. cap. 5.*

An exquisite Pleurisie in which nothing is raised by Cough, or when with the spitting after it began, is restrained, having still the pain and weight in the side, is most dangerous. For it signifieth a very crude disease, which will either shortly kill, or be long in cure.

If the spitting begin with the first, or within three daies, it signifieth the disease will be short; but if it begin late it will be long. *Hipp. Aph. 1. Sect. 5.*

Yellow Choller mixed with flegm or a little blood, appearing in the beginning of the disease with much spittle, is a sign of recovery.

Very bloody spittle is dangerous; for it signifieth a ruption, either of a Vein, or of the flesh; from whence we expect suppuration: For it is thought that little blood doth breath through.

White,

White, glutinating, and round spittle, is evil, for the clammineſs comes from the fiery heat which burneth the matter.

Green and ruſtick ſpittle, is evil, but black worſt of all: For it ſignifies the greateſt aduſtion or extinction of the Natural heat.

A plentiful ſpitting which doth not abate the pain and other ſymptomes, is evil: For it ſignifieth great plenty of matter.

A Pleuriſie in old men, women with child, and in them that are Aſthmatical, or have twice or thrice had the ſame diſeaſe, is dangerous.

Whoſoever hath the diſeaſe in the ſide called Pleuriſie, and are not cleanſed of it in fourteen daies, have an Empyema, or collection of matter; Aph. 8. Sect. 5. Others do extend it to the twentieth day.

A Diarrhœa, or looſneſs coming upon a Pleuriſie or Peripneumonia, is evil; Aph, 16. Sect. 6. which we muſt underſtand of a Pleuriſie, in which there is ſo great an inflamation that the Liver and Stomach conſent therewith, or when the ſtrength is ſo gone by the diſeaſe that the retentive faculty is almoſt ſpent. But if the Pleuriſie be not ſo great, and be in a body full of evil humors, the flux of the belly uſeth then to be healthful, eſpecially if any ſigns of concoction went before.

A Chollerick and plentiful vomiting in the beginning of a Pleuriſie ſignifieth health to come: For Nature being eaſed by that evacuation of Choller, doth more eaſily overcome the diſeaſe.

If a Peripneumonia comes from a Pleuriſie, 'tis evil; Aph. 11. Sect. 7. For it is the tranſlation of the matter to a more noble part.

If the pain in the Pleuriſie, and the Chollerick ſpitting, go away without reaſon, the Patient falls mad. *Hipp.* 3. *Prorrhet.* For the Choller is carried into the Head, and then the urine looks thin and white.

A Pleuriſie which followeth an old diſeaſe, or is in a body of evil habit, is dangerous.

Thick bodies uſed to exerciſe, do ſooneſt die of Pleuriſies and Peripneumonia's, as *Hipp. in Coac.*

And Experience teacheth us that almoſt all the Diggers taken with Pleuriſies, do die thereof: Becauſe ſuch ſtrong bodies fall not ſick, but upon ſome great cauſe, and by reaſon of their thickneſs they cannot eaſily ſweat, ſo that the diſeaſe cannot breath forth.

They who in a Pleuriſie have much noiſe in their Breaſt from the ſpittle, and their countenance dejected, with yellowneſs in their Eyes, and muſts; in theſe death is to be expected, *Hipp. in Coac.*

They who in Pleuriſies have Chollerick tongues at the firſt, are judged in ſeven daies; but they who have not much Choller upon their tongue til the third or fourth day, are judged about the ninth day.

For the Cure of a Pleureſie, firſt the humor cauſing it is to be revelled, derived, and diſcuſſed, and if it cannot wholly be diſcuſſed, it muſt be digeſted, maturated, and expectorated; as alſo the Feaver which is commonly eſſential to a Pleuriſie, and not alwaies ſymptomatical, is to be cured by proper Medicines. All which may be done by the following Remedies.

And firſt you muſt (after a Clyſter, if the diſeaſe be not very violent) open the Baſilica on the ſame ſide; but if it be violent, give the Clyſter afterwards.

You muſt bleed every day till the pain or feaver grow leſs; nay, ſomtimes twice in a day, if the Pleureſie be very violent.

Hippocrates in his 2. *lib. de ratione victus in acutis, Text.* 10. gave an excellent rule to poſterity moſt profitable in practice, That blood be let till the color of it change: For if at the firſt or ſecond time, it appear crude, fleigny, or watery, it is to be continued every day, ſomtimes twice a day till it appear red or yellowiſh. But if it appear red in the beginning, you muſt bleed ſo often till it become livid or black, for that will ſignifie, that the laſt blood came from the part affected, or the neighbor Veins, which is altered by the part inflamed, and of crude is made red, or of red, black or blew by aduſtion.

Although the obſervation of that Rule bring commonly good ſucceſs, yet ſomtimes you muſt not expect that change of color, but deſiſt from bleeding; namely, when the ſtrength is little, or the Patient is of a thin habit of body eaſily diſſolved, or the weather very hot. And although blood-letting is excellent in the beginning of the Diſeaſe, yet if it be omitted, or done inſufficiently, you may open a Vein after the ſeventh, ninth, or eleventh day, according to the Example of *Hippocrates*, who in 3. Epidem. opened a vein for Anaxion in the eighth day, either becauſe he was not ſent for ſooner, or becauſe that it was a moſt crude Pleuriſie, which will ſcarce concoct till the eleventh day.

But when he expectorateth freely, then you muſt abſtain from Phlebotomy, which will ſtop his ſpitting, and bring him in danger of his life.

But blood-letting is ſo neceſſary in the beginning of this Diſeaſe, that it muſt never be omitted, neither in old nor yong, nor women with child, in child-bed, or having their terms; unto all which Experience hath taught us that Phlebotomy is good in this Diſeaſe. Yet you muſt obſerve ſome

Rules in bleeding of women in Child-bed, or having their Terms, which you may find hereafter in the Fifteenth Book, and the last Chapter, concerning the Cure of acute Diseases in women that lie in.

From the beginning of the disease twice or thrice in a day, you must give cooling Juleps, which restrain the heat and boyling of the humor, and stop the defluxion; thus made:

Take of *Poppy Water four ounces: Syrup of Violets, or Poppies, one ounce: Sal prunella one dram. Make a Julep.*

After the first Phlebotomy let the side be anointed with this Liniment, covering the part with greazy wool sewed into a linnen cloth.

Take of *Oyl of Lillies, Chamomel, and sweet Almonds, of each one ounce: fresh Butter, and Hens grease, of each one ounce and an half. Make a Liniment.*

Many put Wax to these Liniments, which is not good, because it stoppeth the pores; but the mucilaginous bodies do not, because they cool and astringe.

In a malignant pestilential Pleurisie, you may ad to your Liniments, Oyl of Scorpions of *Mathiolus*, or a little Treacle.

After the second bleeding, you must apply this Fomentation, made thus:

Take of *Althæa roots, and Lillies, of each two ounces: the Leaves of Mallows, Violets, and Pellitory, of each one handful: Line and Fenugreek seeds, of each one dram: the flowers of Chamomel, Melilot, Elder, and Violets, of each one pugil: Boyl them together, with which foment the side that is pained in a Hogs bladder.*

After Fomentation apply the Liniment aforesaid, to which in the progress of the Disease, you may ad more dissolving Oyls; as of Dill and Flowerdeluce; as also the pouder of Flowerdeluce and Saffron. And to the Fomentation ad discussing Herbs, as Origan, Calaminth, Hyssop, and the discussing seeds.

Many other Topicks are very profitable against Pleurisies, which Authors relate; as these:

First, anoint the part with Oyntment of Marsh-mallows, then lay on the pouder of Cummin seed, or a Colewort Leaf heat at the fire, and anointed with the same.

Faventinus mixeth the Oyntment of Althæa with Oyl of sweet Almonds, and after he hath anointed, sprinkles on the pouder of Cummin seeds, and laieth on a Colewort Leaf; and this he commends highly.

Also the Cataplasm following is very profitable.

Take the *Residency or Ingredients of the Decoction above mentioned for a Fomentation; beat them in a stone Morter, adding of the Oyl of sweet Almonds, Lillies, and Chamomel, of each two ounces: Hens grease one ounce: Barley and Bean flower, of each as much as is sufficient to make a Cataplasm.*

Also a live Hen slit through the back, and sprinkled with the pouder of Flowerdeluce roots, being applied doth very well.

The Paunch of a Sheep laid hot to the part is a very good Anodine: but the Lungs are better.

The Chymical Oyl of Wax being mixt with the Liniments, asswageth pain, and powerfully discusseth the matter.

Hot Bread from the Oven, dipt in fresh Butter, and applied, doth very much dissolve the matter fixed to the side.

After he hath taken twice or thrice of the Julep aforesaid, you may use Pectoral Juleps thus made:

Take of *Barley one pugil: Liquoris and Raisons stoned, of each one ounce: Jujubes twenty: the four great cold Seeds, of each three drams: Bugloss and Violet flowers, of each one pugil: boyl them to a pint and a quarter. Dissolve in the straining, Syrup of Violets and Jujubes, of each two ounces. Make a Julep for four doses to be taken morning and evening.*

Or if the Feaver be very sharp, and much watching, you may make the Emulsions following:

Take of *Almonds blanched, and steeped in cold Water, one ounce: the four great cold seeds, of each half an ounce: Lettice and white Poppy seeds, of each two drams: beat them in a marble morter, powring on by degrees, the Decoction of Barley and Liquoris one pint and an half: strain it and dissolve in it Syrup of Violets three ounces. Make an Emulsion for three doses to be taken morning and evening.*

Some Practitioners in want of sleep give Narcoticks; as Syrup of Poppies, *Philonium Romanum*, and Laudanum, which are dangerous in this disease: for they stop spitting, and astringe and strengthen the Breast. From whence often times comes sudden death.

But this must be understood of the whol dose of Narcoticks: for given in a very smal quantity they do good in vehement pain, a thin defluxion which causeth a Cough, and in want of sleep. In which cases I have often given one grain of Laudanum with good success, and sometimes often. But the use of this is most proper in the beginning of the disease; for then the humor flowing to the part may be restrained,

restrained, and the encrease of the Disease hindered.

When the Cough is violent, and Nature begins to evacuate by spitting, let the Patient hold often in his mouth Sugar of Roses, Sugar candy or Penides, or the Tablets of Diatragacanth frigid, Syrup of Violets and Jujubes. Or this Eclegma following:

Take of *Sugar candy, and Penides, of each one ounce: the pouder of Diatragacanth frigid two drams: Syrup of Violets and Jujubes, of each as much as will make a Lohoch; which let him take often with a Liquoris stick, or make it of Butter, Honey, and Sugar, of each equal parts: the Oyl of Linseed, or of sweet Almonds, being fresh drawn without fire, mixed with Sugar, doth much help the Cough and pain in the Pleurisie, especially if it be drunk in Broth, or any other Decoction.*

If the spittle be thick, you must mix some attenuating and cutting Medicines, as Syrup of Colts-foot, Liquoris, Oxymel simple, pouder of Diaireos, and the like.

You must take these lying with the face upwards, for so they better go to the Lungs.

As the Disease encreaseth, you may use this restoring Medicine to strengthen.

Take of *Conserve of Violets one ounce: Conserve of Borrage flowers, and Bugloss roots, of each half an ounce: Confection of Alkermes two drams: pouder of Diamargariton frigid, and Diatragacanth frigid, of each one dram: Sugar of Roses as much as all the rest. Make a Composition covered with Gold to be taken often with a spoon.*

Purging is improper in a true Pleurisie, except it be in the declination; and then you may appoint this:

Take of *Senna half an ounce: Annis seeds one dram: Bugloss and Maiden-hair, of each half a handful: Liquoris and Raisons stoned, of each three drams: the flowers of Bugloss and Violets, of each one Pugil. Boyl them to two ounces: in the straining, dissolve of Rhubarb infused in Scabious Water with a little yellow Sanders, four scruples: the best Manna, and Syrup of Roses, of each one ounce. Make of these a Potion.*

In the whol time of the disease, let him take Barley Water for his ordinary drink, made with Liquoris, Poppies, and Maiden-hair; and let not his drink be actually cold, for it would hurt the Breast. Wine in this Disease is Poyson, and also all sharp things which provoke Coughing, and by their astringency hinder spitting.

In the declination of the Disease, after purging, and when the Feaver is less, if the pain continue, you may apply to the part, Cupping-glasses with Scarrification two daies together. They may also be applied before the declination, after often bleeding: And if the pain still encrease, and return, you may again let blood, and after Cup with Scarrification.

Zacutus Lusitanus having taken off the Cupping-glasses, applied six Horsleeches with good success, as he witnessed, *observ.* 104. *lib.* 1. *Praxis admirandæ.*

For the same purpose to discuss the reliques of the matter, having first tried Fomentations and Liniments, you may apply with benefit, the Emplaister of Brimstone, and Bay-berries.

Besides vulgar Medicines, there are some proper and specifical, namely the shavings of a Boars Tusk, the ashes of the Pizzle of a Bull or Deer, the flowers of red Poppies, or Corral prepared.

Quercetan in his Dispensatory commends an Apple made hollow, and one dram of Frankinsence put therein and roasted, which the Patient must eat, and drink three ounces of Carduus Water after, then cover himself warm, and sweat. He will have this Medicine used after the third day, and affirmeth that many have been restored therewith.

The flowers of Box-tree do so much purge the Blood, that if a dram of them in pouder be given with Poppy Water, and a Vein opened an hour after, the blood will continue pure.

Hort-dung dissolved in Carduus Water, and strained, doth powerfully disperse the pain, and the humor in the Pleurisie.

White Hen-dung given in a dram of the same Water, doth as much.

These Dungs have much Volotile Salt, which is very piercing and discussing.

You may make a Potion of them both thus:

Take of *Hemp seed one ounce: bruise them, then put to them, of the white Dung of a Hen, and of Horse Dung, of each half an ounce: dissolve them in five ounces of Carduus Water; strain them, and drink it.*

The Blood of a wild Goat given to ten drops with the aforesaid Water, doth powerfully discuss the Pleurisie: In the want thereof, you may give the blood of a tame Goat. But because the strength of him is little, you may give thereof to the quantity of one dram. You must prepare it thus:

Hang up the Goat by the Horns, and bend his hinder Legs backward to his Horns, then cut out his Stones, and take the Blood in a broad Vessel; dry it in the Sun in Summer, or at other times upon an Oven. It is far different from the Goats Blood in the Shops.

The

The Soot of a Chimney given to a dram is very good, but much rather the spirit of Soot, described by *Hartman* in his Practice of Physick.

In an Epidemical Pleurisie, Sudoroficks are to be given, such as are prescribed in malignant Feavers, which also ought to be made as proper for this Disease as may be.

A Diarrhœa coming upon a Pleurisie is dangerous: therfore you must give Syrup of Myrtles, which doth stay the Diarrhœa, and also expectorate: and this is to be mixed with other Syrups. Let the Belly and Reins be anointed with astringents, as useth to be done in all Diarrhœa's. Give Clysters made of Barley Water, which, as *Galen* saith, doth cool and astringe if it be boyled with red Roses, and also Yolks of Eggs be dissolved in it.

Chap. 3. *Of* Peripneumonia, *or Inflamation of the Lungs.*

Peripneumonia hath the same essence with a Pleurisie, and is distinguished only by the part affected, because that is the inflamation of the Lungs, and this of the Membrane that compasseth the Ribs. They differ somwhat in the matter, for a Pleurisie comes often of Choller, but a Peripneumonia of Flegm; although all humors (as we said of a Pleurisie) may produce this disease, I mean humors which are like blood, and make up the mass of it. For as thick humors do hardly penetrate the thick Membrane called *Pleura*, but thin and Chollerick easily; so on the other side, thick flegmatick humors do easily go to the soft and thin substance of the Lungs, and stick close thereto; but thin and Chollerick humors do easily pass by. But this hindereth not, but the Chollerick blood may sometimes cause the Inflamation of the Lungs, as *Hippocrates* 1. *de morbis*, describeth the Erysipelas, or Chollerick tumor of the Lungs, which comes from Chollerick blood thrown into the Lungs from the right Ventricle of the Heart by the Arterial Vein. But an oedematous Inflamation comes from flegmatick blood falling upon the Lungs by way of defluxion from the Head. But only excrementitious flegm, falling as a Catarrh from the brain, can make a Peripneumonia, because it putrifieth in the Lungs, and attracteth blood, by the mixture whereof there is an Inflamation, and this often happeneth in old folk. *Mesue* saith that this Peripneumonia comes rather of Choller, because the Lungs are nourished with Chollerick blood which cometh in great plenty to them by the Arterial Vein. To whom we answer, that fresh, thin, and steeming blood made in the right Ventricle of the Heart is carried into the Lungs, which by reason of its purity, is easily governed by Nature, and is sent by the Venal Artery to the left Ventricle of the Heart, and it seldom is altered from its Natural condition, which useth to make a Peripneumonia. But contrarily, a defluxion from the Head cutting through the large passages into the Bronchia of the Lungs, if it there putrifie, will draw blood unto it, and make a Peripneumonia.

This Peripneumonia is sometimes alone without another disease, sometimes it followeth other diseases, as Squinzy or Pleurisie. *Galen* in Com. 11. Sect. 7. Aphor. teacheth that a Peripneumonia doth follow a Pleurisie two waies: Either when a Pleurisie is turned into a Peripneumonia, or when an inflamation of the Lungs followeth a Pleurisie. This transmutation is when the former disease ceaseth, and the other comes; but it comes upon it when it is white, the former remaineth.

Therefore the immediate internal cause of a Peripneumonia is blood, often flegmatick, seldom chollerick, and most seldom melancholick. Which either comes from the whol body being plethorick, or cachochymical, that is, full, or of evil habit; or from some part which is replete or distempered.

The External Causes of Peripneumonia and Pleurisie are the same; namely whatsoever defluxion can come to those parts: the chief whereof are: First great exercise and violent motion of the Body, especially after long rest, and high feeding. For then the humors abounding from high diet, and kept in by long rest, by exercise are dispersed, attenuated, and heated, and are after sent to the weaker parts, most fit to receive them, among which the Breast and Lungs are chief, because by strong exercise, there is caused great and often breathing, and so they become wearied, and the substance of the Lungs being soft and loose can easily receive the humors coming to them.

Secondly, Among the external Causes the cold and Northernly Air is reckoned, when it comes suddenly after a Southern and warm; for the pores are opened by warm Air, and the humors are more fluid, which by the cold Air coming after, are compressed, and the humors sent to the weak parts.

Lastly, From *Hipp. lib.* of Air, Places, and Waters, the drinking of standing Pools and Lakes, begets the Peripneumonia; for saith the Divine old man, we observe diseases of the Lungs to be most in Marshy Countries.

Also

Alſo the Signs of a Peripnumonia do agree with the ſigns of a Pleuriſie. Two are the ſame, as a ſharp Feaver, and a Cough; which ſomtimes is dry, ſomtimes moiſt, or with more Flegmatick ſpittle coloured with Choller or Blood; and in the progreſs of time, the ſpittle becomes Mattery when the matter of the Diſeaſe grows ripe, and concocted by heat, which ſomtimes comes to paſs when the ſubſtance of the Lungs is not hurt; for if they ulcerate, a Conſumption wil ſollow.

So we may obſerve, That in ſore Eyes that are Mattery, the humors are converted into Matter when the ſubſtance of the Eye is neither ſuppurated, nor ulcerated.

The other ſigns differ in reſpect of the part affected; the difficulty of Breathing is greater than in a Pleuriſie by reaſon of the narrowneſs of the part inflamed, ſo that the Patient ſeems to be choaked and cannot breath but with the head upright: For the part cannot be compreſſed by reaſon of the extention and repletion, nor be more dilated, although it be much dilated, yet it takes in but little Air, therefore the reſpiration is quick and often, with ſnorting: This is augmented by a Feaver by which the breath is hotter, and the deſire of cold air is greater.

The Pulſe is great, faint, and ſoft by reaſon of Flegm and the looſeneſs of the Lungs: yet there is ſome hardneſs by the Choller and blood: it is unequal from the compreſſion of the Artery neer the Heart, and in thick Humors moſt: Sometimes it is intermitting, watery, vermicular, when the Lungs are rotten by too much moiſture.

There is a heavy pain that reacheth from the Breaſt to the Back, ſomtimes it is between the Shoulders, and ſomtimes under one only Shoulder, and from thence communicated to the Throat and Pap: Eſpecially in a Cough, ſomtimes they feel no pain til they begin to Cough: ſomtimes there is alſo a pricking pain in the ſide when it is joyned with a Pleuriſie as it often happeneth: Although the Membrane that covers the Lungs be of the ſame nature with the Pleura, as *Galen* taught 4. *de loc. affect. cap.* 5. Yet there is not ſo great pain in a Peripneumonia as in a Pleuriſie, for two Differences which are laid down by *Galen* in the place afore-cited.

The Firſt is, Becauſe the Nerves that go to the Membrane of the Lungs, are few and very little; but they which go to the Pleura, are many and great.

Th Other is, Becauſe the Breaſt conſiſts of Bones and Fleſh, which wil not be ſtretched, from whence the pain is greater.

But the Lungs are ſoft and yeilding, and therefore their pain is leſs.

There is Redneſs in the Cheeks, by reaſon of the hot vapors which fly into the head and carrying with them the thinner blood. And this Colour is moſt in the Cheeks, becauſe their skin is thinneſt.

There are beſides theſe ſigns, Heavineſs, Weakneſs, and a Toſſing, with great ſenſe of Heat in the whol Body.

The Tongue is Yellow, and then it groweth Red; a great thirſt, ſwelling of the Eyes, and of the veins of the Temples.

There is a Delirium, or Doting, when it comes from Choller; and a Coma, when it comes from Flegm.

If the Diſeaſe comes of Chollerick blood, the ſpittle wil be yellow, the heat and thirſt greater, more difficulty of breathing with leſs Heavineſs; the air breathed forth is more hot: the Feaver is very violent, the Pulſe twift, the Delirium great, the Water thin, yellow and cleer, the age, time of the year, the Country, and Diet before, do al atteſt for Choller.

If Flegm (which is moſt ordinary) produce the Diſeaſe, the ſpittle wil be white, viſcous, and froathy; the Feaver, burning of the Breaſt, thirſt, and drineſs of the tongue, wil be leſs: the weight of the Breaſt greater; the Pulſe ſlower, and ſofter; the Age, old; Habit of body, time of the Yeer, and the Country, are cold and moiſt.

If the Diſeaſe come from pure Blood, the Spittle wil be Red; the Urin Red and Thick; the Face more Red; the Veins of the Temples more ſwoln; with heavineſs and diſtention of the whol body; and other things that declare abundance of blood.

Laſtly, If Melancholly blood be the Cauſe, the Spittle wil be black or blewiſh; the Tongue black, from the beginning dry and rough; there wil be alſo heavineſs and great ſighing between breathing; and al the ſigns of Melancholly predominating in the whol body.

The Prognoſtick of this Diſeaſe is thus to be made.

A Peripneumonia is more dangerous than a Pleuriſie; and for the moſt part deadly by reaſon of the neceſſity of reſpiration, and the neerneſs of the Heart.

Celſus ſaith, That this kind of Diſeaſe hath more Danger than Pain; and for the moſt part Killeth.

But ſtrength of Body, leſs vehemency of Symptomes, yellow Spittle, not mixed with much Blood, raiſed in the beginning; a great flux of blood at the Noſe in the Critical day; or a flux of the Belly which is Chollerick and froathy; or a flux of the Hemorrhoids or Terms, do ſhew ſome hope of recovery.

Impoſthumes

Impostumes about the Ears, or inferior parts, being well suppurated and kept open, do foretel recovery, as *Hipp. in progn.*

If a Peripneumonia be turned into a Pleurisie, it is good, and though it seldom happen, as *Galen* teacheth, Comment. Aphor. 11. Sect. 7. because there is a going from a Disease more dangerous, to one less dangerous. And this transmutation is known by a pricking pain of the side coming thereupon, and by abating the shortness of breath.

But the vehemency of the Disease and symptomes do declare a dangerous and deadly Peripneumonia, as want of spittle, continual watching, a Delirium or Coma, coldness of the extream parts, snorting with great difficulty of breathing, blewness and crookedness of the nails.

Moreover, A Peripneumonia coming upon a Pleurisie is most dangerous, as *Hippocrates* teacheth, Aph. 11. Sect. 7. because the transiation of a humor from an ignoble part, to a more noble, is evil; and the strength being spent by the disease foregoing, can endure the force of a new, and worse.

When the urine is thick in the beginning of the Disease, and after before the fourth day it becomes thin, death is at hand. *Hipp. in Coacis.*

The Cure of the Peripneumonia is very like that of the Pleurisie, and there must be first bleeding as much as the strength will permit, once or twice in a day till the disease abate: for since the Lungs are then full of blood, and draw much from the heart, which is inflamed, you need not fear to let blood thrice, four, five, or six times.

But if a Peripneumonia follow a Squinzy, or Pleurisie, you may let blood more warily because the strength is abated by the former Disease.

You must let blood from the Basilica Vein of both arms, if the whol Lungs be equally affected, or from either, on that side the pain is, or on which the Patient lets more weight, or from which he supposeth he raiseth most spittle.

You must bleed women in this disease, first in the Ancle Vein, and after within six hours in the Arm; except it be so desperate that you are constrained at the first to bleed in the Arm. In which case, all the time you bleed, and a little before, you must apply Cupping-glasses to the Thighs.

But after, if the strength will not permit further phlebotomy, you must apply Cupping-glasses to the Shoulders and Back, both dry, and with Scarrification, as much as the Patient can suffer.

Also Emollient and loosening Clysters are good revulsives; but you must not use too strong purging Medicines therein, lest you bring a flux of the Belly, which is most dangerous in this Disease.

If a crude flegmatick humor coming from the head cause this disease, or nourish it, a Vesicatory laid to the hinder part of the Head, doth very much good.

In the mean while use the Juleps and Emulsions prescribed in the Cure of a Pleurisie. Anoint the Breast with Oyl of Violets, sweet Almonds, or with fresh Butter, or the like, or with this Liniment:

Take of *Oyl of Violets, and Water Lillies, of each one ounce and an half; fresh Butter and Mucilage of Fleabane seeds, of each one ounce: Oyl of Roses half an ounce: the Troches of Camphire one dram. Make a Liniment.* Or,

Take of *Oyl of Violets three ounces: the Oyl of Pompion seeds, and Breast-milk, of each one ounce: fresh Butter one ounce and an half: Mix them and make a Liniment.*

You may provoke spitting with Syrup of Violets and Jujubes, and the rest, prescribed in the Cure of a Pleurisie. As the Lohochs and Compositions there mentioned, given with this Caution, In a thin matter give things that thicken, and in a thick matter give things that attenuate.

Let his ordinary drink be Barley Water, with Liquoris, as in a Pleurisie.

Purging is not good in this Disease, except in the declining of it, and you must make choyce of such things then, as were prescribed in the Cure of a Pleurisie.

Chap. 4. *Of* Empyema, *or matter in the hollow of the Thorax.*

Although the word *Empyema* signifie all Suppuration, yet Custom hath prevailed so that it is taken only for a Collection of matter in the Cavity of the Thorax.

Now there is a Three-fold Cause of the gathering of matter between the Lungs and the Thorax.

The first is an Inflamation suppurated, which happens in a Pleurisie or Peripneumonia; and when the Impostume is broken, the matter falls into the Cavity of the breast. The same may be in a Squinzy, as *Hippocrates* teacheth, Aph. 10. Sect. 5. in these words: *Whosoever is freed from an Angina,*

Angina, they have a Diſeaſe in the Lungs, and die within ſeven daies; but if they live longer, it comes to ſuppuration.

The ſecond is blood falling into the Thorax, where by continuance it muſt needs come to Suppuration. So *Hippocrates*, Aph. 20. Sect. 6. *If blood be ſent into the Belly beſides Nature, neceſſarily it is ſuppurated.* But this ſuppuration is not alwaies true, and properly ſo called, as *Hippocrates* teacheth, but rather to be called a corruption, of which there is matter like quittor produced. This Blood may come from a Vein wounded.

The third Cauſe is flegm falling from the Head & other parts into the Breaſt, and there putrifying. So *Hippocrates*, Aph. 38. Sect. 7. *The diſtillations into the upper Belly are ſuppurated in twenty daies.* *Galen* in his Commentaries, by the upper Belly underſtands the Breaſt. But the flegm there putrifying doth not beget a true *Pus*, or matter, but ſomthing like it; as we obſerve in flegmatick Tumors, as Atheroma, Steatoma, Meliceris, which are kinds of Impoſthumes.

The Diagnoſtick ſigns are of two ſorts: Some declare the diſeaſe to be in the beginning; others that it's old, and confirmed.

Hippocrates layeth down Three ſigns of this Suppuration, beginning 2. Progn.

The firſt is when the Feaver groweth ſtronger, becauſe the Pleuriſie, or Peripneumonii is not purged; for while the matter is turning into *Pus*, the feaver is encreaſed, *Hipp.* Aph. 47. Sect. 1.

The Second is a quaking, which comes when the ſharpneſs of the matter doth twitch the Membranous parts.

The Third is weight, and ſence of heavineſs in the part; for the humor being contained in the Cavity doth weigh heavier than when it is diffuſed. *Galen* addeth in 4. *de loc. aff. cap. 9.* fluctuation or routing: *For* (ſaith he) *if any one is forced to turn in his bed, and perceive ſomthing to flow down at that time, it is no doubt but that there is much matter contained there.* And you may often hear the fluctuation, unleſs the thickneſs or plenty of the matter, which fills the whol Cavity of the Thorax, do hinder the fluctuation. To theſe you may ad difficulty of Breathing. For although after the Impoſthume is broken, the pain of the ſide ceaſeth, and the Diaphragma and Muſcles of the Thorax move more freely; yet becauſe the Lungs are oppreſſed with matter round about them, ſo that they cannot move freely, and ſome part of the matter is ſucked into the ſubſtance of the Lungs, from whence it is that the Lungs are ſo heavy, and the Bronchia is obſtructed, thence is ſhort breathing. For the purulent ſpittle comes from the filth ſent into the Lungs and Bronchia, which ſhews an Empyema; but this is not alwaies a ſpitting of matter by reaſon of its thickneſs, which keeps it from coming to the Bronchia.

But a long lingering Feaver, partly putrid, partly Hectical, milder in the day, and ſharper at night, much ſweat, eſpecially at night, a conſtant troubleſom Cough, ſignifie that the Diſeaſe is old and confirmed; as alſo when the Cheeks grow red, and the Eyes hollow, the Nails crooked, the Legs ſwel, and Puſtuls break forth of the breaſt by reaſon that the ſharpeſt part of the matter breaks out of the Skin; theſe ſignifie the Diſeaſe confirmed.

You may know which ſide is affected from *Hippocrates*, 2. Progn. text. 21. *If* (ſaith he) *an Empyema be only in one part, you muſt turn the Patient, and learn whether he be pained, or hotter in one ſide than the other, and to ask him if he perceives any burden to hang on the ſide that is upward, and if it be ſo, in which ſide ſoever the weight is, the ſuppuration is on the other; as if heat and weight be in both ſides, the Pus is contained in the whol Cavity of the Breaſt.* Alſo *Avicen* adds a Conjecture which he took from *Hipp.* 3. *de morb.* *Apply* (ſaith he) *a linnen cloth wet to both ſides, and that will be dry ſooneſt which lieth upon the part where the matter is contained.* We may lay down another ſign from our own Experience, which was not obſerved by Authors, namely, In the ſide affected there will be an Oedematory Tumor, from a Potion of the thinneſt matter breathing through the Muſcles of the Thorax. And when, in ſuſpition thereof there appears ſuch a Tumor, and blowing up of the skin on either ſide, you may certainly pronounce that the Empyema is there, and you may ſafely open the ſide.

The chief Prognoſtick Signs are given by *Hippocrates*, 2. Progn. Text. 63. in theſe words: *In Suppurations they chiefly eſcape, whom the feaver left the ſame day they broke; and they who preſently deſire meat, and are freed from thirſt, and have ſmel, and laudible excrements: and if the Pus be white and even, and of the ſame color, and when it is voided without pain or great Coughing. But they die whom the feaver leaveth not, or to whom ſeeming to leave them it returns again, and who are thirſty, and have no appetite, have a looſe Belly, the Pus green, and livid, or frothy. They die who have all theſe ſigns: But they who have but ſome of them, ſome die, and ſome lie long ſick.*

To theſe we will adjoyn theſe following Prognoſticks.

They who have an Empyema, and by reaſon of the abundance of matter, lift up their whol Breaſt when they Breath, are quickly choaked. *Galen, 4. de Loc. Aff. Cap. 7.*

If an Empyema is not ſpit forth in forty daies, it turns into a Conſumption, which brings death. *Hipp. Aph. 15. Sect. 5.*

A Suppuration on both sides of the Thorax, is more dangerous than in one; also that on the left side is more dangerous than on the right: by reason of the left Ventricle of the heart, which is more greivously affected with the matter gathered on that side.

Whosoever are Burnt or Cut for a Suppuration, if the Matter cometh forth pure and white, they escape: but if it be bloody, foul, and stinking, they die. *Aphor.* 44. *Sect.* 7.

If the Matter flow plentifully by Stool and Urine, and the Patient continue strong, it is a sign of Recovery, although this Evacuation is very seldom: yet is it spoken of by *Galen*, *Aetius*, and *Paulus*: As also the way declared by *Galen* through which it passeth, 3. *de loc. affect. cap.* 4. and *com. in aphor.* 30. *sect.* 3. In the first place he speaks thus, *This question doth not a little disturbe the followers of* Erasistratus, *who think that there is nothing but spirits in the Arteries. But we find no difficulty in it, because we know that the smooth Artery in the Lungs, so much Pus as it receiveth from an Impostume broken, can carry the same into the left Ventricle of the heart, which after goes to the Reins by the great Artery.* In the last place, he saith, That the matter contained in the Lungs doth first come to the Ventricles of the Heart, and then to the great Artery; or by the hollow Vein to the outside of the Liver, from thence to the inside, and so to the Guts. From which you may easily see the way by which an Empyema may be purged by stool and urine.

If the Patient grow better, and be almost clensed, and then again raiseth stinking Spittle, he dieth of that which remaineth and returneth. *Hipp. in Coac.*

For the Cure of this Disease: First, if you cannot hinder the Suppuration of the matter in the Thorax, you must further it by convenient Cataplasms. As,

Take of *Marsh-mallow Roots three ounces: fat Figs ten: Raisons stoned one ounce: Chamomel and Melilot flowers, of each one pugil. Boyl them all well, then beat them and strain them, then ad the flower of Line, Fœnugreek seed, and Wheat, of each one ounce: Oyl of Lillies, sweet Almonds, and fresh Butter, and Turpentine, of each one ounce. Make a Cataplasm.*

Also to help Concoction, and maturation within, you may give this following Apozeme:

Take of *Marsh-mallow Roots, and of the greater Comphry, of each one ounce: Agrimony, Colts-foot, Scabious, and Maiden-hair, of each one handful: the four great cold seeds, of each one ounce: Annis seeds one dram: Liquoris and Raisons of the Sun stoned, of each one ounce: the three Cordial Flowers, and Chamomel, of each one pugil: Make a Decoction to one pint and an half; dissolve in the straining, Syrup of Colts-foot, Liquoris, and Sugar-candy, of each two ounces. Make an Apozeme perfumed with the Pouder of Flowerdeluce Root one dram; for five mornings draughts.*

This following Eclegma is good for the same purpose:

Take of *the pulp of fat Figs one ounce: fresh Butter two ounces: Oyl of sweet Almonds newly drawn without fire, one ounce: Sugar candy two ounces: Starch two drams. Make a Loboch.*

Venice Turpentine washed with Barley Water given to the quantity of three drams with the pouder of Liquoris, doth much profit for Maturation, Discussion, and Clensing.

But if the Empyema will not be spit up (as sometimes it will not) you must come to opening of it, which you must do between the fourth and fifth Ribs, beginning to count from below, with many Cautions, which are elegantly set down by many Chyrurgions, especially by *Hierome Fabricius ab Aquapendente*, in his Book of Manual Operations. But it is more profitable to open the Impostume which comes from a Pleurisie before it break, and the Pus flow into the Cavity of the Breast, which is known by the Tumor which is against the place of Suppuration, and by other signs of an Empyema. And then you must not open it below, and between the fourth and fifth Rib, because if you make an orifice far from the impostume, there wil no matter come forth; but you must open it in the middle of the Tumor, first applying a Caustick. But if no Tumor appear, it is hard to open it before the Impostume be broken.

But if any will try, he must find out the place in which the Patient finds weight, pain, and heat.

And it must be made between two Ribs upon the higher part of the Rib, because there is a Vein and Artery neer the Inferior; which you must observe in the opening of every Empyema. While the matter is taken forth by degrees, let the Patient take a Wound Drink twice a day, which will purge the blood, clense the Ulcer, and hinder putrefaction: As

Take of *Sanicle, Bugle, Scabious, Bettony, St. Johns wort, Carduus, Mousear, Burnet, Perewinkle, Agrimony, Plantane, of each one handful: the seeds of St. Johns wort, and Carduus benedictus, of each half a dram: Cordial Flowers one pugil: Boyl them in Hydromel to a pint and an half. Take six ounces every time.*

With this same Decoction Injections may be made into the Cavity of the Breast.

For his Drink, let him take Hydromel, or Barley Water, or Spring Water with Sugar.

If after the Breast is opened the matter do not flow freely, you must draw it forth with the following Plaister, which doth powerfully draw from all Impostumes.

Take

Take of *Rozin of the Pine-tree that is freſh, cleer, and ſweet, half a pound: Oyl of Bayes and Turpentine, of each one ounce: Gum Elemi two ounces. Firſt let the Rozin and the Gum be melted and mixed; then ad the Turpentine and the Oyls, and let them boyl a little; then ſtrain them. Make a Plaiſter thereof for the part: change it once a day in Winter, and twice in Summer; cut it in two or three places that the matter may paſs through.*

Chap. 5. *Of the Dropſie in the Breaſt.*

THe Dropſie in the Breaſt is like to Empyema which comes from a ſerous humor contained in the Cavity of the Breaſt. The common Practitioners do not deſcribe this Diſeaſe, although *Hippocrates* doth it excellently, 2. *Lib.* of Diſeaſes called dropſies in the Lungs, thus: *There is a Feaver, and a Cough, quick breathing, the feet ſwell, the Nails are contracted, and they ſuffer as they do in an Empyema, but not ſo violently, and longer; and if you powr any thing in, or apply a fomentation or fumigation the matter doth not follow; and by this you may know that it is not matter, but water that is within: and if you try a long time to diſcover it by your Ear laid to his ſide, it boyls inward like Vinegar; after that it goes into the belly, and then he ſeems to be recovered; But in progreſs of time, the belly is inflamed, and that endureth the ſame, or more: ſome ſwell in the belly, cods, and face.* Thus *Hippocrates.*

This Diſeaſe ſeldom happeneth, it is more often than it is diſcovered, for it is not ordinarily known. Many relations of it are given by *Schenkius*, by which it appears that he never ſee it till their bodies who died of it were opened by him. Therefore we will deſcribe it exactly that a Phyſitian may not be deceived.

This ſerous humor, either may be bred in the Lungs, by the proper fault of them, as when it doth not concoct its own nouriſhment, but turneth it into Water, which by degrees is ſent to the Cavity of the Breaſt, or by bladders breaking upon the Lungs, which are mentioned by *Hippocrates* in his Book of Internal Diſeaſes, and alſo by others. Or it is ſent into the Breaſt from other parts, as from the Hypochondria eſpecially, when the Liver or the Spleen are diſtempered with a Schirrus or other diſeaſe by which much water is produced. This watery humor, is either ſent by the Veins to the Lungs which are weak, or elſe from the Cavity of the Abdomen it is carried to the Breaſt by Inſenſible Tranſpiration. Now Experience teacheth that this ſerous humor may be ſent from one Belly to another, becauſe the dropſie of the Breaſt turns into a dropſie of the Belly, and a dropſie of the belly into the Breaſt, from whence they are ſuddenly choaked.

The Diagnoſis of this Diſeaſe (as hath been ſaid) is very hard, for almoſt all the ſigns are the ſame with the ſigns of other Diſeaſes of the Breaſt. But a noiſe of Water in the breaſt, is only peculiar to this Diſeaſe, and to Empyema, which may be heard within if the body be moved to and fro, or be taken upon a ſtrong mans ſhoulders and ſhaken.

But all the Signs which we mentioned from *Hippocrates* taken together, may make a certain Diagnoſis. To which you may ad this one, as being moſt evident to ſhew the Diſeaſe, and by which the Dropſie in the breaſt is only diſtinguiſhed from other difficulties of breathing: namely, When at every firſt beginning to ſleep this difficulty of breathing cometh and hindereth it, and by night encreaſeth, and towards morning by degrees abateth.

To theſe you may ad ſomtimes, a pain of one Arm or Shoulder, which comes either from the humor falling from the Head into the Breaſt, part whereof falls into the Arm, being neer, or from the water contained in the breaſt, and ſent to the Arms by the Axillary Veins of the Arm-holes; or from the Refrigeration of the Intercoſtal Muſcles, from which the Nerves are derived to the Arms, or from ſome other ſympathy by way of vicinity: For *Hippocrates* in *Coacis* obſerved this Sympathy of the breaſt and arms, *If thoſe parts or lobes of the Lungs which hang towards the right and left ſide of the Cheſt, be vehemently inflamed, ſo that they ſway or reſt upon one ſide of the Cheſt or Ribs, the watery matter breaks out on the ſame ſide of the Body where the Lungs lean or reſt.*

This is a great Diſeaſe, and hard to be cured, for they who have it have their Natural heat very weak, and their natural ſtrength alſo, from ſome great diſeaſe in the bowels: from whence it comes (that when the humor collected in the breaſt is evacuated by Medicines which is very difficult) there comes more in the place of it; from whence the diſeaſe is not only nouriſhed, but encreaſed; ſo that at length by abundance of water they fall into the Dropſie called *Aſcites*; yet in the beginning before the bowels are much hurt, it ſomtimes may be cured.

For the Cure of this diſeaſe, you muſt obſerve two Indications; namely, That the matter contained in the breaſt be evacuated, and that the breeding thereof again be hindered.

It is a hard thing to empty the water contained in the breaſt, becauſe the waies are not open by which it ſhould be brought forth. Therefore *Hippocrates* doth adviſe to open the ſide, which becauſe we never ſee practiſed, and never read in any Author that it was done with good ſucceſs, we cannot

absolutely approve; and we may speak of it as we have of the Opening or Tapping for the Dropsie, in its proper Chapter.

Therefore it is better to attempt this Evacuation with Medicines that expel Water, for which purpose al those Medicines prescribed by us in the Cure of the Dropsie, are good. Where we must observe diligently, That if when the Disease is confirmed, and much serous humor is gathered in the Breast, you give a violent Purge, those humors wil be much moved, from whence there wil come a great Suffocation which wil kil the Patient: therefore be wary, and give your Medicine in a less Dose, though oftener, and mix them with strong Openers that purge Urin, that both the passages may be unstopt, and the Matter carried to the Uritories.

Among Water Purges the Minerals are best, as Mercurius Dulcis, and Mercurius Vitæ so corrected that it may work only downward.

Also Diureticks alone, or Medicines to provoke Urin often used are good, because they turn away the matter coming to the breast, to the bladder, and by way of Consequence they bring it also from the breast.

Also Sudorificks are profitable, to the carrying away of this serous matter; and we saw a man of sixty years old, who by the use of a Sweating drink made of Guaiacum and Sarsa taken fifteen days together, and by provoking sweat with the vapor of the Spirit of Wine, was Cured.

Cauteries applied to make Issues in the Thighes and Legs, are also good to take Water from the breast.

You may hinder the breeding of this Water, by amending the faults of those parts which send this Matter.

So if the Lungs be in fault you must apply proper Medicines unto them: if the Liver or Spleen be troubled with Distemper, Obstruction, Scirrus, or the like, you must cure them by Medicines taken out of their several Chapters.

But those things which do strengthen the Vital and the Natural parts wil alwayes agree, such as are prescribed in the Cure of Weakness, Dropsie and Flux of the Liver.

Chap. 6. *Of* Hæmoptysis, *or Spetting of Blood.*

ALthough usually the word *Hæmoptysis* doth signifie al manner of Spetting of blood from what part soever it doth proceed whether from the Breast, Lungs, Rough Artery, or from the Jaws, Gums, Pallat, Uvula, Brain, Stomach, Liver, and Spleen. Yet *Galen, lib. 1. de crisi. cap. 5.* saith, That *Hæmoptysis* properly is taken for that spetting of blood which comes from the Vital parts, as the Breast, Lungs, and rough Artery.

It is a Symptome in the excretion of those things which are wholly besides Nature.

But since every Symptome depends upon a Disease as its next and immediate Cause: the Cause of this wil be either an Organical, or a Common Disease: The Organical is Two-fold; the opening of the Vessels called in Greek *Anastomosis*; and Rarifaction called *Diapedesis*. Also the Common Disease is Two-fold, namely the breaking of the same Vessels called *Rexis*, and the Corrosion of them called *Diabrosis*.

The Internal Cause immediately producing the Diseases is a great quantity of blood.

Blood exceeding in quantity wil either break the Veins or open their Orifices, and so make either a *Rexis*, or *Anastomosis*.

The same blood offending in quality, as when it is too hot or too thin, it wil come forth by way of *Anastomosis*; but because heat wil open the Orifices, and the thinness causeth it to flow more easily: Also the same qualities make a *Diapedesis* or Rarifaction: for heat doth make thin the Tunicles of the Vessels, and the thinness of the blood causeth it to flow more easily through the pores of those Tunicles.

Lastly, The sharpness of the blood doth gnaw the Tunicles of the Veins and exulcerate them, & so cause a *Diabrosis*, or Erosion; this also is caused by sharp or salt humors which distil from the head, or coming from other parts to the Lungs.

Moreover, The External Causes do concur for the production of this Disease either mediately or immediately: It is produced immediately by a stroak, fal, wound, or the like; but they produce it mediately which encrease blood, heat and attenuate; as high and hot feeding, stoppage of Terms or Hæmorrhoids, too much exercise, great clamor, heat, long staying in the sun, and many others.

Moreover, External Cold may cause the Ruption of the Vessels, by making their Tunicles harder and not so easily to be extended; but with this must be joyned strong Motion, or abundance of Humors.

The Diagnosis of this Disease is difficult in respect of the part from whence it comes: yet *Galen* declareth

declareth it in few words; 4. *de loc. affect. cap.* 6. namely, blood coming from the Gullet and Stomach is put forth by vomit; when it comes from the Vital parts, by Cough: from the Jaws and Weazand, by Hawking: from the Mouth by simple spetting, which wants a more cleer explication when blood comes from the head to the inner parts of the Weazand and the Jaws, it comes forth by Coughing, and so it doth when it comes from the breast; and therefore it is not distinguished by this sign.

Moreover, When blood coming from the Lungs or Breast is brought out by Coughing: There are other necessary signs from which the parts affected may be distinguished.

First therefore when blood comes from the head, although it sometimes cause Coughing; yet the greatest part thereof is put forth by Hawking, and there is a tickling in the Pallat as in a Catarrh: as also when you look into the Pallat it appeareth to be foul, and bloody; and it is more confirmed to be from the Head if at that time the Nose bleed.

When the blood comes from the Lungs, it is distinguished from that which comes from the Breast by *Galen* in the place mentioned; for that which comes from the Lungs is froathy, in greater plenty, and without pain: but from the Breast, it is black, little, and with pain.

But it may be objected, That blood coming from the breast is carried by the Lungs, and by consequence is froathy, because it is mixed with the air taken in, as that which comes immediately from the Lungs.

And *Avicen* saith, That blood from the breast is froathy: I Answer, That it is one thing to spet some froath mixed with the blood; and another thing to spet nothing but froath, which only comes from the substance of the Lungs.

Therefore you may observe Three degrees of froath: for it is either wholly froathy from the flesh of the Lungs, which it resembleth, for the Lungs are but a congealed froath; or it comes from the Vessels of the Lungs and is very froathy: or it is mixed with froath and comes from the breast.

But the most certain sign that it comes from the Lungs is taken from the pain, which is fixed and continueth where the solution of continuity is.

And you must observe, That blood is sometimes sent from the Liver, Spleen, Matrix, and other parts into the Lungs and spet forth: so that the Breast is not primarily, but secondarily affected; which thing is hardly to be discovered.

But we may conjecture of it, namely if any of the aforesaid parts be troubled with pain, inflamation, or any other distemper, and there neither is, nor hath been, any other fault in the breast.

You may find out the signs of the Causes from what hath been said: For if blood be brought by the Anastomosis of the Veins, there went before some Cause that opened the mouth of the Vessels, then blood is thrown forth in a pretty quantity and without pain. But if it come forth by Diapedesis or Raretaction, then is it waterish little, and without pain.

When it breaks forth by Rixis, or Eruption, it is very much; if a Repletion went before, or any External Cause that might break the Vessels.

Lastly, If it comes by Diabrosis, or Corrosion of the Vein, there went before salt and sharp distillations from the head: The blood is salt, and sharp, and ill coloured; and some Causes of sharp humors were formerly: in the beginning there is but little blood, but after when the Corrosion is greater, then is much blood spet forth, and at last there is a spetting of Matter.

Hippocrates, Aphor. 25. Sect. 4. doth lay down the Prognostick of this Disease, as what kind of blood soever is spet out of the mouth from any part below, it is evil: for every opening of a vessel which letteth blood come forth so, is dangerous; especially in the Lungs; concerning which his Aphorism chiefly speaks.

But sometimes such spetting of blood may be without hurt; namely, When Nature by a critical Motion doth purge the superfluous blood by those waies. And it is observed, That Women which have had their Terms stopt have without harm at certain times spet blood from their Lungs by the Anastomosis of the veins.

In respect of the Causes. Diapedesis or Rarifaction is less dangerous than Anastomosis or Apertion and Eruption is most dangerous; for unless it be healed within three or four dayes there cometh an inflamation, which being suppurated produceth an Ulcer, from whence cometh a Consumption: Whence *Hippocrates* saith, Aphor. 15, & 16. Sect. 7. That from spetting of blood there followeth spetting of Matter, and from spetting of Matter a Phthisis or Consumption.

But *Diabrosis* or Corrosion is most dangerous; and *Galen* saith, That it is incurable by reason the Ulcer that followeth it is incurable.

The Cure of *Hæmoptoe* or spetting blood, is wrought by Revulsion of blood from the Lungs by correcting the evil quality thereof, and closing the vein that is opened, by astringing and conglutinating means.

First therefore let blood from the Arm on the same side on which you find heavines or pricking, in a smal quantity often, and at a distance for the better Revulsion.

After that, open the vein in the Foot, and so you wil make a Revulsion to a further distance, and this

this will be more profitable if the disease come from obstruction of the Terms. If the Patient be subject to the Hemorrhoids, you must open them with Horse-leeches.

Also apply Cupping-glasses with Scarrification to the shoulders and back, or without Scarrification to the Groins and under the Ribs. Rub and bind the extream parts, and in all the time of the Cure, at some distance apply often those Cupping-glasses to the Hypochondria, or under the Ribs.

And let him take the following Julep thrice every day.

Take of *Plantane and Poppy Water, of each two ounces: Syrup of dried Roses one ounce: Lapis Prunellæ one dram: Mix them for a Julep.*

Lastly, You must often purge the serous and Chollerick humors which make the blood more thin and fluid with Medicines that have an astringent Vertue: As,

Take of *Rhubarb one dram: yellow Myrobolans half a dram: Tamarinds half an ounce: Infuse them in Plantane Water; strain it and dissolve in it Powder of Rhubarb half a dram: Syrup of dried Roses one ounce. Make a Potion.*

Then give Medicines that close the Orifices of the Vessels by an astringent quality, but such as will not retain the blood in the Breast by too much astriction; therefore mix sometimes with them such as dissolve and expectorate the congealed blood which is out of the Vessels.

Of all which these following are the best:

Take of *Bole-Armenick, Terra Sigillata, both sorts of Coral, Blood-stone, of each half a dram: Sugar of Roses half an ounce. With one white of an Egg well beaten with Rose Water, make a Loboch.*

Or you may make one more speedily, and more pleasant thus:

Take of *the Water of the white of an Egg well beaten two drams: Sugar of Roses one ounce: white Starch three drams. Mix them for a Loboch.* Or,

Take of *Conserve of Roses, and the greater Comfry, of each one ounce: Bole-Armenick and Terra Sigillata, of each one dram: With the Syrup of dried Roses make an Opiate to be often held in the mouth, and swallowed by degrees.*

Take of *Conserve of dried Roses, Troches of Amber, and of sealed Earth, of each half a dram: prepared Pearls one scruple: Sugar of Roses as much as of all the rest. Mix them and let him take a spoonful thereof one hour before meat.*

Take of *the Juyce of Purslain twelve ounces: Sugar eight ounces: Boyl them to a Syrup, of which let him often lick.*

This is the best for spitting of blood. And if you want Purslain, you may take Plantane.

The Syrup of Comfry according to *Fernelius*, prescribed by *Bauderon*, is good for the same.

Take of *Yarrow with the white Flower: and yellow Flower, of each two handfuls: Green Roots of Tormentil, with the Leaves if they may be had, otherwise of the dry, one ounce: the greater Burnet one handful: Conserve of red Roses half a pound: Spring Water sixteen pints: put them in a glassed pot covered and luted, that the vapors may not come forth: then boyl them in* Balneo Mariæ *sixteen hours; keep the straining in a glass, and take six ounces thereof every morning, noon, and night.*

Take of *the Troches of Amber one dram: Plantane and Rose Water, of each one ounce and an half: Syrup of Mirtles and dried Roses, of each half an ounce. Mix them for a Julep.*

Take of *Spirit of Vitriol half a scruple: Plantane Water four ounces. Mix them for a Potion.*

This presently stops blood coming either by Cough or Vomiting.

Two spoonfuls of Syrup of Coral taken every day, is good against all manner of bleeding. But the Tincture of Coral drawn with Juyce of Lemmons, is more powerful.

Quercetan in his Dispensatory, prescribeth this following Water against spitting of blood, which is very excellent.

Take of *the Roots of Snakeweed, Comfry, and Tormentil, of each one ounce: Knotgrass, Yarrow, Veronica, Winter-Green, Sanicle, Shepheards-purse with the Roots, of each one handful: Bramble tops, and Mastich wood, of each half a handful: Sumach and Myrtle berries, the seeds of Plantane, Barberries, and white Poppies, of each six drams: the flowers of Water Lillies, Guords, Quinces, and red Roses, of each two pugils. Bruise them and mix them; then steep them four daies at the fire in the Juyces of Plantane, Purslain, Sorrel, and Agrimony, of each two pints: then strain them well, and put to them Acacia and Hypocistis, or Conserve of sloes, of each two ounces: sealed Earth, Bole-Armenick, of each half an ounce: the Electuary of Diatragacanth frigid, two drams: then macerate them again four daies, and distill them. Take two or three spoonfuls of this Water alone, or with some proper Syrup.*

The

The Chymical Oyl of Amber doth pierce, astringe, and dry powerfully, if you give two drops thereof in Plantane Water: As *Cesalpinus* teacheth in his *Speculum Artis Medicæ*. *Mercurialis* in his consultations doth highly commend the seeds of white Poppies, or white Henbane to be taken every morning in the quantity of a dram, with Sugar of Roses and Syrup of Purslane: So you may also use the white Diacodium or Syrup of Poppies prescribed in the Cure of the Phrenzy.

Amatus Lucitanus doth highly commend the Juyce of Nettles, in these words: *They which have vomited blood, after they have been given over by Physitians, have been cured only by the juyce of Nettles drunk five or six daies fasting, in the quantity of four ounces, and by Nettle Broth.*

Sanguis Draconis doth wonderfully conglutinate all inward Veins, if you give half a dram thereof with Plantane Water, or other proper Liquor; or Medicine.

The usual Pills to hold under the Tongue, may be made thus:

Take of *the Mucilage of Gum Arabick and Tragacanth, drawn with Plantane Water, of each two drams: Mummy and Mastich, of each one dram: Sugar of Roses as much as will make Pills, of which let him hold one continually in his mouth.*

And take this following Pouder in his Broths.

Take of *red Coral and prepared Pearl, of each half a dram: Gum Arabick and Tragacanth of each two drams. Make a Pouder.*

Or boyl white Poppy seeds and Sumach tied in a clout, in his Broth.

Narcoticks are good in this case, and you must use them thus:

Take of *Syrup of Poppies, Jujubes, and dried Roses, of each one ounce: Mix them, and take a spoonful every night.* Or,

Take of *Syrup of Poppies and Purslain, of each three drams: Terra Sigillata half a dram: Purslain and Plantane Water, of each one ounce and an half. Make a Potion to be taken at night.* Or,

Take of *Syrup of Myrtles and Poppies, of each one ounce: Bole-Armenick half a dram: mix them to be taken at night.*

Sometimes you may give Treacle of four months old, as *Galen* teacheth, 5. Method. cap. 13. or *Philonium Romanum*, or *Laudanum*.

Platerus reports that he cured one, only with the Troches of Winter Cherries, with Opium dissolved in Goats milk, taken some daies; and also that he cured a Woman with one ounce and an half of Manna given in Broth, and with blood, and the use of the Tablets following, morning and evening for many daies.

Take of *the Seeds of white Henbane poudered finely two scruples: red Coral half a dram: Gum Arabick one scruple: new Violets ten: the Juyce of Barberries two drams: Sugar dissolved in Rose and Plantane Water, two ounces. Make Tablets.*

Trallianus, lib. 7. cap. 1. doth highly commend the Blood-stone, by which he saith that he cured many, giving it to four scruples, with the Juyce of Pomegranate, or Knotgrass; but to them who bled not much, he gave it with warm water. But he saith you must sift it well, give it often, that it may better be distributed, and in Wine.

Antony Valerius exercit. ad cap. 27. lib. 1. *Hollerij* de morb. internis, reports, that he cured, when all means failed, by this Pouder, which he had from *Julius Scaliger*.

Take of *Spodium, red Roses, Bole-Armenick, Terra Sigillata, and Blood-stone, of each half an ounce: red Coral, Amber, and Pearls not perforated, of each two drams and an half: Gum Arabick and Tragacanth of each two drams: the seeds of Purslain, Mallows, Ribwort, red Roses, burnt Harts-horn, and white Starch burnt, of each three drams. Make thereof a fine pouder, and give three drams thereof with rain water.*

This Pouder *Scaliger* borrowed of *Serapio*, who mentioned it in his Book of Spitting of blood; and which *Valescus* also commends. And you may make Tablets thereof with Sugar dissolved in Rose or Plantane Water.

The Electuary of *Hælideus* is like it, and easier made; which was wont to be famous in *Germany*, and so commended of *Gesner*, *Erastus*, and *Crato*, thus:

Take of *the seeds of white Poppy and Henbane, of each ten drams: Terra Sigillata, and red Coral, of each five drams: old Sugar of Roses, as much as will make an Electuary. Give hereof one dram morning and evening, after universal Medicines have been given.*

But because that spitting is stopped by the use of Astringents, and thence comes difficulty of breathing, you must at times use things that mollify the Breast, and also stop bleeding, such as they which are compounded of Gum Arabick, Tragacanth, Starch, and Syrup of dried Roses, Quinces, Mirtles, and Jujubes the Juyce of Plantane and Purslain, while you use Astringents, if the Belly be bound give a Clyster or Purge, that leaves some Astringency.

In

In the whol time of the Cure, if you suspect that there is any congealed blood in the breast, you must dissolve it with Oxycrate thus made, according to *Galen*, 5. Meth. that it may be pleasant and not provoke Coughing with the Vinegar; for so it dissolveth the blood and gently bindeth: Let him take six ounces warm twice or thrice in one day: and if it provoke Coughing sweeten it with Sugar: but you must use this when the bleeding begins to cease; for this also Amber and Mummy mixed with glutinatours and astringents is good.

Also for the allaying the Heat of the Liver, use often a Cooling Epithem to the right side.

Take of *Rose, Plantane, and Succory Water, of each four ounces: Vinegar of Roses two ounces: the Pouder of the Electuary of the three Saunders one dram and an half: Camphire one scruple: make an Epitheme to be applied warm to the Liver.*

After the use of the Epitheme anoint the same part with Oyntment of Roses, or the Cerat of Saunders, with a little Rose-Vinegar.

Anoynt also the Reins of the back with Oyl of Roses and Water-Lillies washed with Vinegar; adding a little Camphire to allay the heat of the blood in the hollow Vein: But you must beware of things that are too Astringent, lest they drive the blood from the hollow Vein into the Lungs.

It is also very good to wash the stones with Oxycrate to stop the Flux and allay the heat: for there is a great content between these parts.

A Bath would also be good to allay the heat of the Bowels; but because they relax and so open the Veins, you must avoid it.

Let him drink Syrup of Myrtles, Purslain, and dried Roses; or Sugar of Roses with Barley-water, or with the Water wherein Blood-stone or sealed Earth hath been infused. Or mix Conserve of Roses with the Water, or with Water wherein Coriander hath been infused, made sharp with the Spirit of Vitriol: or with the Tincture of Roses.

A weak Decoction of Yarrow drunk ordinarily is good against al bleeding.

If a sharp Defluxion from the Head upon the Lungs, be the Cause of this Disease, besides what hath been said, you may use those Remedies which are prescribed in the Cure of a Hot Catarrh.

After the Blood is stopped, to keep it from returning you must first abstain from al things that stir the Humors, as violent exercise, great heat, anger, roaring, rich Wines, the meates mentioned which are either salt or spiced.

Conserve of dried Roses must be held in the mouth, especially at bed time.

Take of *Conserve of Roses and of Comfry Roots, of each one ounce: the Troches of Amber, and sealed Earth, of each half a dram: red Coral and prepared Pearls of each one scruple: Sugar of Roses as much as all the rest: make a mixture, of which let him take a spoonful sometimes one hour before meat.*

Let him be purged four times in a yeer, or oftener if occasion be, with the Potion of Rhubarb and Myrobalans above mentioned; to which, instead of Syrup ad one ounce of Manna.

You may with good success give a scruple of torrefied Rhubarb every morning one hour before meat, especially if the blood be very serous, as it is commonly in Haemorrhages.

Also Rhubarb not torrefied given in the same quantity; for so the blood after the serous watery Humor is carried away wil grow thicker: Or, You may give a dram of Rhubarb once every Week.

There is also a Magistral Syrup to clense the blood from thin serous Humors. As,

Take of *the Leaves of Bugloss, Fumitory, Hops, Succory, Endive, Agrimony, Plantane, Maiden-hair, of each one handful: the Tops of Asparagus, Vervain, and Eyebright, of each half an handful: the Seeds of Gourds and Mellons, of each half an ounce: Endive and Dodder seed of each two drams: Liquoris scraped, and Raisons, of each one ounce: sweet Prunes two ounces: Senna four ounces: Polypody of the Oak two ounces: Agarick tyed in a thin Clout, six drams: Mace one dram: the Three Cordial Flowers & red Pease or Pulse of each one pugil: boyl these to a pint & an half: dissolve in the straining of the juyce of sweet Apples three ounces: fine Sugar one pound and a quarter: make a Syrup boyled well, & scented with yellow Saunders: Then infuse in it one ounce of Rhubarb beaten and tyed in a Clout, let him take an ounce and an half, or two ounces, with Broth twice in a month.*

Make an Issue in the right or left Leg, as the Liver or Spleen are affected.

Lastly, Let him use for a whol Month Asses-Milk steeled, for prevention of this Disease.

For his Drink, take Water boyled a little with Coriander seeds, or the Decoction of Barley and Liquoris.

CHAP.

Chap. 7. *Of* Phthisis, *or Consumption.*

ALthough the word *Phthisis* signifie every Consumption, yet it is most properly taken for that extenuation of body which cometh after an Ulcer in the Lungs.

For this Extenuation of body comes from a putrid lingring Feaver, which turneth to an Hectick; and this Feaver comes from the Ulcer in the Lungs, from which by reason of their neerness to the Heart putrid Vapors are continually sent thither and cause the Feaver, which after is dispersed from the Heart into the whol body; so al the parts being too cold and dry, and receiving the intemperate putrifying heat, do not wel concoct their nourishment, but are ill nourished, from whence you may plainly perceive a Consumption of the substance of the whol body: for that Feaver by reason of its continuance from the perseverance of the Cause turneth Hectick: and its often joyned with a putrid Feaver, which is known by the Urine, and by the Distempers extraordinary at sometimes, insomuch that in some Consumptions you may observe fits of an intermitting Feaver.

A sharp and Corroding Humor, either coming from other Parts, or breeding in the Lungs, is the immediate Cause of an Ulcer in the Lungs.

First sharp and salt Rhewm falls from the brain, which being violent easily ulcerateth the Lungs: Somtimes Flegm that is not sharp nor salt wil do the same: namely, if it lie long in them and putrifie, and from the putrifaction ariseth an Acrimony, which Corroding Ulcerateth: yet this putrid flegm in the Lungs doth not alwayes ulcerate, as we may observe in a Catarrh when putrid Matter is spet forth, and the Lungs are sound.

But there are two Conditions for the Causing of an Ulcer: one in respect of the matter flowing; another in respect of the Lungs: In respect of the Matter it is required that it should be so disposed, that when it is putrified it begets a sharpness which may cause an Ulcer: In respect of the Lungs, they must be extraordinary tender, and disposed to corruption, which in a word is called a Vitious Constitution of the Lungs, coming from the Parents usually, of which we will speak hereafter.

Now the Humors that Exulcerate and putrifie the Lungs, come from the parts adjoyning, as the Pleura, Mediastinum, Diaphragma, rough Artery, and especially from an inflamation in them, which comes to Suppuration and turns into an Empyema: of which *Hippocrates* speaks, Aphor. 15. Sect. 5. *They who fall from a Pleurisie into an Empyema, if the Empyema break in fourty dayes and come away, are Cured; but if not, they fall into a Consumption.*

The Humor is in the Lungs when from some vessel broken, corroded, or opened by a wound, the blood flowing doth putrifie; or when an Ulcer is left there from the final pox.

Somtimes from the evil Constitution of the Lungs, evil Humors proceed; which corrupt their substance and cause a Consumption: and this comes commonly from the Parents, from whence a Consumption is reckoned among the Hæreditary diseases, of which it is the chief, so that we may observe how many whol Families are taken away with this disease.

This evil Constitution of the Lungs is not in the first qualities, but hath some malignant and venemous quality, by which it becomes infectious: Although we deny not but a soft and loose substance of the Lungs, and therefore more fit for Corruption, doth much conduce to the breeding of this Disease.

This evil Constitution of the Lungs causeth that some fal into Consumptions without a Distillation, Inflamation, or any other evident Cause, but only from the fault of the part that corrupteth its own nourishment.

Somtimes it comes from a Pustulæ bred in the Lungs and broken, which by *Hippocrates*, 1. *de morbis*, is made two-fold:

One by him is called, A Crude Pustule, because it never comes to Suppuration, but growing by degrees stops the passage of the breath, and at length kils the Patient.

The other is that which cometh to Suppuration, and is called the Impostbume of the Lungs, and these come two wayes, either by Defluxion, or Congestion; and the Matter gathered is either in a Bagg or without it in the very substance of the part.

The thickness of the Bagg often causeth that such an Impostbume is carried many yeers in the Lungs undiscovered, and without any hurt to the body: From whence *Hippocrates* saith, Aph. 41. Sect. 6. *They who have an Impostbume in the body, and feel it not, it is by reason of the thickness of the Matter, or of the place wherein it is that they feel it not:* For this Cause many who seemed to be in perfect health have suddenly died by an Impostbume broken within: of which there are Examples in *Fernelius, lib. 5. de morbis, de part. morb. & sympt. c.* 10. among which he mentioneth two Physitians who fore-saw the danger without signs.

If the matter which comes from the Impofthume broken, flow into the Ventricle of the Heart, the ſick preſently die: but if it come to the Bronchia, or paſſages in the Lungs, it may be ſpit up; if the body be ſtrong, and the matter little in quantity; but commonly there is an ulcer remaining in the Lungs which cauſeth a Conſumption.

Moreover, There are external Cauſes, as contagion, which is the chiefeſt; for this Diſeaſe is ſo infectious, that we may obſerve Women to be infected by their Husbands, and Men by their Wives, and all their Children to die of the ſame; not only from the infection of their Parents ſeed, but from the company of him that was firſt affected.

And this Contagion is more eaſily communicated to them that are of kin, wherefore it is not ſafe for a Brother or Siſter to enter into the Chamber for the *Miaſmata*, or vapors infective, which come from their Lungs, and infect the whol Air of the Chamber, and being drawn in by others (eſpecially if they are any way diſpoſed to the ſame Diſeaſe) beget the ſame diſeaſe in their Lungs.

There are other external Cauſes, eſpecially very hot or cold Air; the hot Air doth melt down the ſharp humors which are contained in the Brain, and ſends them to the Lungs. The too cold Air by aſtringing, compreſſing, and Squeezing doth cauſe the like defluxion: But the Air in Autumn is moſt dangerous, becauſe by its inequality in heat and cold, it cauſeth ſharp and ſalt diſtillations; whence *Hippocrates* ſaith, Aph. 10. Sect. 3. *Autumn is the worſt time for People in Conſumptions.* Secondly, Sharp and ſalt meats and drinks do cauſe a Conſumption, which fill the Head with ſalt and ſharp vapors. And laſtly, all thoſe internal and external Cauſes which uſe to produce ſpitting of blood, which uſeth to end in a Conſumption, may be ſaid to be Cauſes thereof.

Among the Antecedent Cauſes, evil humors throughout the whol body, are accounted the chief, which being moved by external cauſes, are ſent to the brain, and from thence to the Lungs. Among which you may reckon the ſuppreſſion of the Terms, Hemorrhoids, or other uſual evacuations, which doth cauſe Catarrhs and defluxions.

The aforeſaid Cauſes do produce this Diſeaſe, eſpecially among thoſe whom *Hippocrates* calleth *Phthirodeis*, and *Pterugodeis*, that is, ſuch as have a ſtraight and diſtreſſed breaſt, a long neck, and ſhoulder bones ſticking forth, who muſt of neceſſity fall into this diſeaſe, if they have tender Lungs, or any hereditary inclination thereunto. Alſo they are inclined to a Conſumption, who have a weak Head, which is eaſily filled with ſuperfluous Humors, which are ſent to the Organs or Inſtruments of the Spirits.

There are no true and proper Differences of Conſumptions, but ſuch as come from the variety of their Cauſes. Yet *Hippocrates* doth lay down many kinds which are worth the obſerving, which muſt be reduced, not to a true Conſumption, but to one in general, which is without ulcer of the Lungs. And firſt *lib. 6. epid. ſect. 8. text. 47.* he ſheweth of a Conſumption which came from a running of the Reins, in this Hiſtory: *A Satyre called* Grypalopex, *being twenty five yeers old, had Nocturnal Polutions, and dayly loſs of Seed; who when he came to be thirty yeers of age, fell into a Conſumption, and died.* For by the continual loſs of Seed the nouriſhment of the body is taken away, by which the ſolid patts are conſumed and dried.

There is another kind in *Hipp. 2. de morb.* called the Conſumption of the back, which comes from too much Lechery, which deſtroyeth the whol habit of the Body, and takes away the nouriſhment from the ſolid parts: this happens to new married folks, who are unſatiable, and is the chiefeſt of the Conſumptions of the back; for *Hippocrates* laies down four kinds thereof: The firſt is that mentioned, which comes from Lechery. The ſecond is laid down *lib. 2. de intern. affect. text. 13.* which comes from too much blood, and nouriſhment going to the Spinal Marrow, by which the Natural heat, and all other faculties are ſtifled and deſtroyed. Now *Hipp. 5. epid.* ſheweth that the body may conſume by too much blood, in a ſtory concerning one, who, when nothing would nouriſh him, but he ſtill grew leaner, was perfectly cured, when all other Medicines failed, by bleeding in both Hands as long as the Veins would diſcharge. The third kind is in the place mentioned, namely, when the marrow of the back is dried, by which the whol body drieth and conſumeth. *Hippocrates* mentioneth two Cauſes of this drineſs: one is the obſtruction of the veins which go to the back with nouriſhment; another is the flowing of Choller from the head upon the back, which *Hippocrates* ſheweth in his Book *de locis in homine.* The fourth is deſcribed in the ſame Book, and it comes from a diſtillation upon the marrow of the back, in theſe words: *Moreover, when a defluxion falls upon the Back, this kind of conſumption cometh with pain in the Loyns, and ſeeming emptineſs to the Patient in the internal parts of the head.* In the ſame Book, numb. 18. he ſaith thus: *When there is a defluxion upon the Marrow, there is a ſecret undiſcernable Conſumption.* He calls it ſecret, becauſe when the body decaies, you cannot ſo eaſily find out the cauſe: he calls it undiſcernable, becauſe you cannot perceive the inconveniences of the defluxion at the firſt. But it ceaſeth to be ſecret and undiſcernable, if the defluxion be not only upon the marrow of the back, but alſo upon the *Os Sacrum*, and Hip: for then the diſtillation is apparent, and there is pain and loſs of motion, with dejection of mind. Theſe are more cleer in *Hippocrates*, in his Tenth Book *de glandulis*, in theſe

these words: *There is another Disease which comes from a desluxion from the Head by the Veins upon the Marrow of the Back, and from thence to the* Os Sacrum, *and Hip, which is a Consumption also which destroyeth, for then the Shoulders and both the feet are weak, and after the leggs, and they alwaies die of it, though they have been formerly cured.* This kind of Consumption is to be observed, because it often happeneth, especially to such who have weak Nerves, which will easily receive the desluxion.

To this kind you may refer that which comes of want and hunger; which *Galen* mentioneth, *lib. de Marasmo*, when the Body decaies for want of nourishment. Now Nourishment is wanting to the solid parts, not only for want of meat, which the Stomach concocteth, and sends to the Liver to make blood for the whol Body; but also when the *Chylus* which is sufficiently concocted in the stomach cannot pass through the Meseraick Veins, by reason of their obstruction; as it happeneth to them who have a Struma, whose Mesentery for the most part is full of Glandles; by which the milky Veins called *Venæ Lacteæ*, are compressed, from whence the whol Body grows lean, and they die of a Consumption.

But the solid parts are deprived of their necessary nourishment when salt blood that is not fit for nourishment is gathered into the Veins, which, as *Galen* shews, are incurable, 5. Meth. except by *Epicrasis*, or change of habit. And finally, *Galen*, *lib. de Marasmo, decimo meth.* and in other places, speaks of a Consumption from a manifest or hidden Inflamation, from the syncope of the Heart or Stomach, and the like, which may be seen in their proper places.

The Diagnostick signs by which you may know a true Consumption, do some of them, declare a Consumption beginning, or begun, or confirmed, which are very well set down by *Hipp. 1. de morbis.*

The signs of a Consumption at hand, are in *Hipp.* Book, mentioned, Text 9. in these words: *There is also a Suppuration when flegm flows from the Head upon the Lungs; and first for the most part it flows privately, and causeth a little Cough, and the spittle to be bitter, and a little heat.*

In this saying there are contained four signs of an eminent Consumption.

The first sign is, A desluxion from the beginning closely conveighed to the Lungs, because then the matter is little, and because the thinner part of the humor, which floweth about the rough Artery, and doth not vex the Lungs, which otherwise would be more disturbed in the beginning, before they are weakened; thence it is called a secret desluxion, because there is little hurt at the first done thereby.

The second sign is, When the Humor flowing makes but a smal Cough, being at the first but little and thin.

The third sign is, When the spittle is more bitter than usually it was, because the humor that must ulcerate the Lungs must be sweet, sharp, or salt; which qualities being altered by a preternatural heat, do turn bitter: for it is known that sweet and salt things overmuch boyled, do grow bitter. But in regard that preternatural heat is not very great at the first, the spittle is but a little bitter.

The fourth sign, is a little heat, as being feaverish; for when the matter is not much moved, but receiveth putrifaction from the heat of the place, wherein it hath been long contained, the Feaver cannot be very violent, for the putrid matter can many waies be refrigerated; therfore it is no wonder if the Feaver be smal in the beginning.

To these signs of *Hippocrates* we may ad an evil formation of the Breast and Youth, which meeting with the aforesaid signs, must needs declare a consumption to be at hand.

The evil fashion of the Breast is when it is narrow, and the Shoulder-blades stick up like wings, when the fore part of the Breast is narrow, and the hinder part broad, for then the Breast is both smal and evil proportioned. The straightness of the Breast shews want of Natural heat, and the evil proportion shews its weakness. For if the Natural heat were much and vigorous, the breast would have thereby been extended. But such and so great is this disposition, that *Hippocrates* calls it a Natural Consumption, coming from a principle in Nature. Wherefore they who are thus made must of necessity fall into a Consumption, except some other disease take them off. Which by the way is observable, for if they have any acute disease, who are thus inclined, they seldom escape, because the Natural heat is weak and little, and therefore will easily be overcome by a strong disease. Therefore the most wary Physitians in such kind of Natures and habits, do use to prognostick rather death and danger, than health or recovery, when they fall into any disease.

In them who are inclinable to this Disease, Youth is most dangerous, according to *Hippocrates*, Aph. 9. Sect. 5. especially from Eighteen to Thirty Five yeers, in which time there is much blood for to break the vessels; as also it is then thin and sharp, more proper to open and corrode the Vessels: In Children, the Catarrh is made flow with much Moisture: in Old Men, it is allayed with Cold: but in the Middle Age, for the Reasons aforesaid, it doth often exulcerate.

Moreover, in Youth many distempers come by Diet, by which many ill humors are produced and the blood infected: as also by reason of violent exercise, as running, wrestling, leaping, fencing, going in the sun, a vein may be broken in the Lungs which may produce a Consumption.

The signs of a Consumption begun, are set down by *Hippocrates* in his Book of Diseases before mentioned, *Text* 10. in these words, *In progress of time the Lungs are exasperated and ulcerated within by the Catarrh putrifying there, whereby the breast seems ponderous, and there is a pain before and behind; and there is more sharp heat in the body: and the Lungs by reason of their heat draw moisture from the whol body and especially from the head, which also is made hot from that body, and spetteth forth thick matter.*

In these Words there are *Six Signs* contained of a Consumption begun.

The First sign is, That the Lungs are exasperated in progress of time: that is, The Cough is more violent; for the Disease increasing the Distillation is stronger, and the Lungs are peirced therewith, and provoked to Cough forth that which hurteth them: which Cough doth not only come from the matter flowing down, but from that which flowed formerly: for being not Coughed up it groweth foul by long continuance, by which means the Lungs are more forced to expulsion.

The Second sign is, The weight of the Breast which comes from the matter gathered into the Lungs: For albeit the Lungs of themselves do feel little or nothing, yet because they are tyed to the Breast by Membranes, they perceive a weight, when they are burdened.

A Third sign is, A sharp pain before, and behind: for the matter contained in the Lungs doth with its evil quality offend them, as wel as with its quantity and putrifaction, by which the Membranes are pricked, which cause great pain: for the pain in the Membranes is alwayes pricking. Now this pain is perceived before and behind; because these Membranes are joyned before to the Sternon, and behind to the Back: and the cause of this pain is from a great Cough, called by *Hippocrates*, A Malignant, or Cruel Cough.

The Fourth sign is When sharp Heat falls into the body, and there followeth a violent Feaver: for when through progress of time the matter putrifieth more, it is probable that the Feaver wil be greater; for although the matter from the beginning do only putrifie in the Lungs, yet by reason of the Suppuration made in the Breast with an Ulcer, the filth is communicated to the humors contained in the Veins; from which come divers sorts of putrid Feavers, and these differ from that Feaver which comes only from the Ulcer in the Lungs, through the filthy vapors which are carried from them into the Heart, which turns to an Hectick; and therefore in a Consumption there is a Hectick Feaver often joyned with a Putrid.

The Fifth sign is, When a great quantity of Flegm falls from the Head to the Lungs: which *Hippocrates* confirms, when he shews the Cause of that great Defluxion; namely, The Lungs by their Heat drawing Flegm from the whol body: Hence it is that the humors contained in the whol body are the matter of a continual and great Flux which doth so trouble men in Consumptions. The Lungs by the filth which they have contracted, grow hot; by which heat Flegm is drawn from the Brain, which the Brain fetcheth from the whol Body: And this is one of the principal Causes of the extenuation of the whol body: for al the humors, good and bad, are carried to those parts, and so the whol body decayeth.

The Sixth sign is, Spetting of thick rotten Flegm: for when the Matter putrifieth and there is an Ulcer, quittor or filth must needs come from thence, and therefore the Spittle is flattery: but it is between thick and thin: for after that it hath by long continuance in the Lungs grown thick, it is made thinner by the addition of that which breaks from the Ulcer, and so it becomes moderate, which *Hippocrates* calls Subcrassum, or Thickish.

To these mentioned Signs of *Hippocrates* you may ad this as most certain, namely, The Extenuating the body with a lingering and constant Feaver: For besides the putrid Feavers above mentioned which come and go by fits, and grow from the humors which putrifie in the Veins: there is also alwayes present a lingering daily Feaver coming from the vapors sent from the Ulcer to the Heart which corrupteth the nourishment of the whol body, and makes it dry and hot, from whence the body must needs grow extenuated.

To these you may ad Sweatings at Night, with which men in Consumptions are often troubled as soon as they begin to sleep: for by sleep the Heat is drawn in which encreaseth the Inflamation of the Lungs; and the heat inwardly increased, causeth abundance of vapors, which are thickned in the skin, and turned into sweat.

Moreover, There is a continual rigor which comes from the sharpness of the matter which pricketh the Membranes.

And Lastly, You may ad sweetness of spittle, which useth to come when it begins to Suppurate, which is the original of Saltness.

Hippocrates shews also the signs of a Consumption confirmed, in his 11. Text of the Book above mentioned in these words, *The longer this Disease lasteth, the more absolute matter will be spet, and the Feavers be the sharper, the Cough more frequent and strong, the body will more consume, and yet the body is disturbed downward from Flegm, and this comes from the Brain: when any man comes to this he must perish.*

In

In these Words we may observe that there are Five Signs of a Consumption confirmed.

The First is, The Spittle being more Mattery, or rather Matter it self.

The Second is, A strong Feaver, and sharp, more putrifying; and the Ulcer more foul.

The Third is, An often and violent Cough more than formerly; often because of the great provocation and little evacuation, therefore nature laboreth to do that at divers times which she cannot do at once: and it is a stronger Cough, not only because the greater sharpness of the Water doth more violently stir up the expultive faculty; but also because of the wearing away of the solid parts, the breast is made more hollow, hence comes a hoarse and sounding Cough, as from a hollow place.

The Fourth sign is, Pining and want of Aperite, which makes them leaner; now the want of Appetite comes from the distillation which doth not only fal upon the spirital members, but also upon the natural: especially the Stomach, whose mouth is thence weakened to the loss of Appetite; as also from the putrid vapors sent thither either from the Feaver or the Ulcer.

The Last sign is, A loose belly which comes from Flegm falling from the head, by which in time the stomach and guts are weakened, and the retentive faculty destroyed: and this kills the Patient as we shal shew more at large in the Prognosticks.

To these signs of *Hippocrates*, we may ad some other:

The First is, A great Extenuation of the whol body, so that al the Musculous flesh is consumed, and the bones appear only covered with skin: and hence it is that the nayls are crooked, because the Flesh which was in the tops of the Fingers to hold up the nayls, is consumed.

To this you may ad Difficulty of breathing, both because the Faculty is weak, as also because the Bronchia of the Lungs are stopt with putrid matter; as also because the part is for the most part putrified and consumed, and therefore cannot take in sufficient air to cool the heart; so that what the Lungs cannot do by one breathing, it must do by often.

And Lastly, We may ad, That in a confirmed Consumption that is desperate, the Hair falls off, the Cheeks wax blue, except it be after meat, and then the vapors sent up make the red Lice breed in abundance, and the Feet swel.

Neither need we so many signs, for if any ordinary man, saith *Aretæus*, shal see a man pale, weak, and coughing, and very lean, he wil conclude him to be in a Consumption.

Yet we must observe diligently, That sometimes a violent Catarrh falling upon the Lungs wil resemble a Consumption so, that filth like Matter, shal be spit forth, and thence may a Feaver come through putrifaction and extenuation of body: but they who are so are easily cured by diligence in means, therefore let us distinguish this rightly from a Consumption, which is chiefly done by discerning between putrid Flegm and Matter. Thus;

Matter is of a dun Colour, and less White than Flegm; sometimes of divers Colours, and being put into hot Water it sinketh and dissolveth: but Flegm swims at the top and sticks together by reason of its slimeness, and wil not dissolve.

But if some of the Spittle dissolve and the rest not, it is made of Flegm and Matter, which often happeneth.

As for the Prognostick, it is very hard to Cure a new Ulcer in the Lungs; but it is impossible to Cure an Old, because it is opened by the continual motion of the Lungs and by Coughing, so that it wil not be united: as also the force of the Medicine is gone before it can come at it, and the lost substance of the Lungs cannot be repaired.

Moreover, An Ulcer, Spittle, Feaver, and Leanness, require contrary Remedies, for those things which dry the Ulcer, do hinder Spittle, increase the Feaver, and Leanness: and Moist things which are good against the Feaver and Leanness, do make the Ulcer more foul.

Sometimes the Ulcer seems Cured, and there is a scab upon it, but with the least motion it fals off, and the Disease returns.

A Consumption which comes from a smal Ulcer of short continuance, although it be difficult, yet is not uncurable if proper Medicines be timely used: And they who have gathered Observations mention many so Cured; now there is most hope when the Patient is strong, the spittle white, even of one colour, and easily raised; if the humor falling from the head pass through the Nose, and if thereupon the Feaver abate, if the Appetite be good, & there be no thirst, & if the belly bound & in good order, if the Patient have a good habit of body, young, and have his breast large and hairy.

They whose spittle stinketh, or have loose bellies, or cannot spet, are neer death, as *Hippocrates* teacheth, 1. Prog. & Aph. 11. & 12. Sect. 5. And, Aph. 16. Sect. 7.

A Consumption coming upon an acute Disease doth kill speedily, but if it come from other Causes it is Chronical, and lasteth many yeers: And *Avicen* saith, That he knew a Woman that lived twenty three yeers in a Consumption. And *Matthew de Gradi* saith, That another Woman which was always about the fire, lived in a Consumption twenty eight yeers.

The Cure of this Disease, as is said, is for the most part impossible, if the Disease be Old; but if it be New it may sometimes, and easier when it is but coming upon them who are disposed thereto by

an hereditary disposition, but are not yet fallen into it. Therefore we shal first lay down a Prophylactick or preservative, and then shew how to cure the disease.

Therefore for the amending of the evil disposition in a Consumption, use a cooling diet, and moist, and all such things as correct the blood, and make it mild, and correct its saltness and sharpness: as the Waters of sweet Baths, the use of Milk and the like. As also China Roots boyled in smal Beer; but the Decoction of the Sanders is the best, which is not only good in a Consumption at hand, or begun, but also in salt and thin distillations, and in old bleeding from thence. The Decoction of Guajacum doth wonders upon the same account with the former, either given in distilled Waters, with a little white or red Wine, as the disease will bear it. Now the Decoction of Guajacum, and of Sanders, are made both alike, both for the first and second drink, and given the same way. To these you may ad change of Air, which is good both to prevent and cure. And lastly, those Remedies are good which we will lay down for the cure of the disease confirmed, to be used first.

Now the whol Cure consisteth in the clensing and glutinating of the ulcer, by taking away the Causes that produce and nourish it, by opposing the Hectick Feaver, and restraining of the Consumption.

First therefore, because an ill habit of body may encrease the Ulcer of the Lungs, you must use gentle purges, at divers distances, as long as the body is not very low. And these must be made of Manna, Rhubarb, Cassia, or Syrup of Roses, thus:

Take of *Barley half a pugil: Liquoris scraped, and Raisons stoned, of each three drams: Jujubes four; the flowers of Bugloss, and Violets, of each half a pugil: boyl them to three ounces: In the straining dissolve Rhubarb infused in Scabious Water with yellow Sanders four scruples: Manna one ounce: Syrup of Roses half an ounce. Make a Potion.*

Or give two ounces of Manna with Chicken or ordinary Broth.

Or make a Bolus of Cassia one ounce, and one scruple of the pouder of Liquoris.

In the beginning you may give stronger purges for to draw down the salt and sharp Catarrh which is the chief Cause of the Ulcer, such as are prescribed in a hot Catarrh.

Also before the body be too lean, at the first you may let blood to allay the Feaver, and the acrimony of the humor.

But in the beginning of the Cure you must stay and divert the Catarrh from the Breast, otherwise all other things will be in vain. And all those things which were prescribed for the Cure of a hot Catarrh are good in this case.

Besides a Seton to the Neck, is very good. And *Fabricius Hildanus* reports that he cured many by this way.

At length you must come to the Cure of the Ulcer; for which, give things that clense, knit, and expectorate. Many there are of this nature. But these following are the best.

Milk doth hit all intentions for Cure: It clenseth with its serous parts, it conglutinateth with its coagulating part, and nourisheth and refresheth with its unctious part. But there are divers kinds of Milk, and Womans Milk is the best, because it is more agreeable to our Natures, especially if it be sucked from the breast. *Platerus* affirms that he knew many cured by the use thereof; and that one of them did not only recover, but grew so strong, that least his Nurse should want milk for him, he got her with child again.

But because many will not endure that sort, Asses Milk is commended, which because it is very full of Whey, doth easily pierce into the Veins, and excellently clense the Ulcer: the next to this is Goats Milk. Let the Ass be fed with Plantane, Vine Leaves, Brambles, Polyganon, Grass, Barley, and Rye. Let him drink it new milked, warm, therefore let the Ass be brought neer the Chamber, and be milked into a warm Vessel. First let him take it in a smal quantity three or four ounces, that his Stomach may be used to it, encreasing the quantity by degrees to eight or ten ounces, or a pint, and least it should grow sowr or curdle in the Stomach; and that it may agree better with the Lungs, put Sugar of Roses to it, one ounce thereof to eight of milk: let him not sleep after his Milk immediately, but walk gently about the Chamber: let him not eat before the Milk be concocted, and he find a stomach, and that it be more effectual. You must not give it in a strong Feaver, or when there is a pain in the Head, or swelling in the Hypochondria, or a Chollerick flux, according to *Hippocrates*, Aphor. 64. Sect. 5.

Commonly it is taken only once in a day; but it is better twice; and best if the Patient live only upon it. For besides that it doth work more powerfully in a great quantity, there is a great profit by not mixing it with Broth and other meats, for they will easily putrifie. If therefore the Disease be very desperate, give Milk after purging every six hours with *Manus Christi* of Pearl and Coral. And least strength should fail, let him intermix a restoring distilled Water.

Sugar of Roses is very profitable, as also the Conserve; by use whereof, *Avicen* reports that he cured a Woman of a desperate Consumption, so that she was not only sound, but very fat afterwards.

Mesue

Mesue also witnesseth that many have been recovered by the same, and he directeth that the Conserve of Roses be new, not above a yeer old, taken in a great quantity, and often, with Medicines, Meat, and drink, and also by it self at any hour. But first give Clenters, because it will otherwise astringe and retain the excrementitious matter in the Lungs. But when breath begins to fail, and the Patient cannot raise flegm, let him take expectorating things; as Syrup of Hyssop and Coltsfoot, and other Lohochs. And if heat arise from drying too much, give Syrup of Violets, Jujubes, the Mucilage of Fleabane and Quinces, and the like.

Montanus, *Valeriola*, and *Forestus*, say that they have seen some cured by taking Sugar of Roses in great quantities. An Apothecary whom I knew in a Consumption, made a great quantity of Sugar of Roses for himself, and eat it constantly, by which he was cured.

An Infusion of Yarrow, Tormentil, Burnet, and Conserve of Roses made in *Balneo Mariæ*, is very good, as it is described in the Chapter of spitting of blood, if it be used twenty daies together.

The Decoction of Bugle in Mutton Broth, doth excellent against a Consumption and inward ulcers, it doth a little gently loosen the belly against the Nature of all the Consolidæ.

Trallianus, *lib. 7. cap.* 1. boasts that he cured many with Blood-stone. The preparation and use whereof we have shewed in the Cure of spitting blood.

The Syrup of the Juyce of Ground Ivy is commended by *Quercetan*, thus made:

Take of *the Juyce of Ground Ivy two pound and an half: let it be digested in* Balneo Mariæ. *To this Juyce well refined, put Sugar of Roses one pound; Penides four ounces: Boyl them to a Syrup, to be taken now and then a spoonful.*

He also addeth the flower of Brimstone to it to make it into a Lohoch, of which he gives four times in a day; and he boasteth that he hath therewith cured many.

The Syrup of the flowers of St. Johns wort, made by Infusion in *Balneo Mariæ*, is very good in this Disease, as also for all inward ulcers.

The Syrup of Comfry is excellent; for it clenseth, healeth, and strengtheneth by astringing; as also Comphry Roots boyled in Broth

It is affirmed that many have been cured by this Hydromel.

Take of *China Roots sliced, six ounces: Coltsfoot Roots three ounces: Burdock and Avens Roots, of each three ounces: Elicampane Roots two ounces: Lungwort Leaves, and Scabious Leaves and Roots, both the Veronicaes, Ulmaria, and Herb Two-pence, of each two handfuls: all the Capillar Herbs, of each one handful: the tops of Bugle, Bettony, Cowslip flowers, and red Veronica, of each four pugils: Ground Ivy Leaves and Roots three handfuls: Jujubes, Dates, Sebestens, and Raisons stoned, of each one ounce and an half: Spanish Liquoris one ounce and an half. Let them all, being well sliced, boyl in thirty two pints of spring Water till half be consumed, with a little gentle fire: ad to the Liquor being strained, of the best Honey four pound: Boyl it again, and skim it; then strain it through an Hippocras Bag, putting thereto half an ounce of Cinnamon, six drams of Coriander seeds: Annis and sweet Fennel seeds, of each three drams: put the Liquor in a large Vessel, and let it work in the Sun; for so it will be done in forty daies; otherwise it will be longer: but you must keep the Vessel alwaies full and open, that it may froath over: therefore you must make more Hydromel than the Vessel will contain; and if the disease require it you may use it fresh before it worketh till you make another in the Vessel; and you may make this quantity twice or thrice at once, because it must be taken divers months together. Let him take a good draught hereof twice or thrice in a day.*

This following Syrup is made more easily, and hath great Vertue:

Take of *the Juyce of Ground Ivy, Veronica, and Carduus Benedictus refined, of each eight ounces; in which, boyl gently Maiden-hair, Politrice, Scabious, and Lettice, of each half a handful: Dissolve in the strained Liquor one pound and an half of white Sugar. Make a Syrup well boyled, adding in the end three drams of the Extract of Juniper; Juyce of Liquoris and the Extract of Carduus, of each four scruples. Let the Patient take one spoonful an hour before dinner, and another before supper, and another at bed-time.*

Cardanus saith, that he cured many Consumptions with this course following: namely, by giving no other nourishment than Barley Broth made without Flesh, and Water with Sugar, and every morning four ounces of the Decoction of the Tails and Legs of Cray-fish made in Barley Water with two drams of Sugar.

Arcæus, *Ingrassias*, *Fracastorius*, and *Erastus*, say with admiration, That they have cured many Consumptions by the use only of Guajacum for a long time continued; yet this in respect of the antecedent cause, which is a hot and sharp humor, seems to be an enemy.

Avenzoar reports that his Grand-father cured a Consumption, with well leavened Bread, and Sallet Oyl, and also that he did the same.

This Pouder following is highly commended by *Valescus de Taranta*, and it is reported to be invented by *Haly Abbas*, and he saith, that he cured one with it. And *Forestus* saith that he cured his Brother with the same.

Take

Take of *white Poppy-seeds ten drams*: *Gum Arabick, Starch, and Gum Tragacanth, of each three drams*: *Purslain-seed, and Mallows-seeds, of each five drams*: *Pompion, Melons, Cowcumbers, Gourds, and Quince seeds, of each six drams*: *Spodium, and Juyce of Liquoris, of each three drams*: *Penides the weight of all the rest*: *make a Pouder*: *give every morning two drams thereof with the Syrup of Poppies or Jujubes*: *Let him also take it in Barley, Cream, or Almond Milk, and with other meats.*

Cappivaccius, and *Claudinus* do approve of Oyl of Vitriol to dry the Ulcer, giving two or three drops with Rose-water or Juyce of Plantane, with a little sugar.

Crollius also commends the Elixir Proprietatis which is made of the Spirit of Sulphur; with the Spirit of Wine, Myrrh, Aloes, and Saffron.

The Chymists do highly commend the Medicines made of Brimstone, as the Flower, Milk, and Balsom thereof, as you may read in their Books: You may use them thus very wel.

Take of *the Flower of Brimstone, and Pouder of Frankinsence, of each one scruple*: *put them into a hollow Apple, then roast it, and let the Patient eat it with sugar every morning for eight or ten dayes together.* Or,

Take of *Conserve of old Roses, Diamargariton frigid, and Diapenidion, of each one ounce*: *Flower of Brimstone three drams*: *make it up with clarified Honey, of which let him take the quantity of an Hazel-nut twice or thrice in a day.* Or,

Take of *Flor. Sulphuris three drams*: *Sugar dissolved in Rose-water three ounces*: *make Lozenges, which let him hold in his mouth often.* Or,

Take of *Lac. Sulphuris half a dram*: *Magistery of Pearl, and Coral, of each half a scruple*: *the Emulsion of Melon-seeds made with Coltsfoot or Veronica-water, two ounces*: *the Julep of Roses six drams*: *Cinnamon-water, and Manus Christi, with Pearl, of each two drams*: *Mix them, and let him take two or three spoonful every morning.*

Some Chymists commend Antimonium, Diaphoreticum wel Calcined with thrice as much Saltpeter, so that al the vomiting quality be gone, which must be given every day in Lozenges made with Sugar of Roses, or mixed with Conserve of Roses, or with the Medicines above mentioned.

The Balsom of Peru is good to heal Ulcers in the Lungs, if you give one drop made into a Pill with Sugar, every day.

The Pouder of Burnet, one dram given every day in Broth, is esteemed excellent.

Ruffi Pills are commended by some taken one scruple every day, but made as followeth they do wonders.

Take of *the Mass of Ruffi-pills, one ounce*: *Antimonium, Diaphoreticum, and Gum of Guajacum, of each half an ounce*: *Make a Mass with the Balsom of Peru*: *of this let him take one scruple every day for one Month.*

The Syrup of Coral, and Gelly of Quinces are good for the same.

Rodericus out of *Fonseca* commends the Decoction of yellow Saunders for a good Medicine against Defluxions upon the Lungs; which he prepareth thus:

Take of *Succory and Sorrel Water, of each four pints*: *yellow Saunders sliced three ounces*: *infuse them one day, then boyl them in Balneo Mariæ in a close Vessel three hours*: *take three ounces of this every morning in Beer for fourty dayes together.*

Also al the Medicines which we mentioned for the Cure of Spetting blood, are here very good.

Fumigations may be wel used to dry the Ulcer of the Lungs very wel, and they must be often taken in at the Mouth and Nose: You may make them thus:

Take of *the Gum of Ivy one dram and an half*: *Frankinsence one dram*: *Myrrh half a dram*: *Amber one scruple*: *Benoimin and Storax, of each half a dram*: *Hypocistis two scruples*: *Coriander seeds, red Roses, and red Saunders, of each one scruple*: *Pouder them, and mix them with the Mucilage of Gum Tragacanth*: *make Troches and cast them upon Coals.*

Or, Make plain Fumes of Frankinsence, Myrrh, Mastich, and Benjamin, alwayes in the Chamber that he may take in the dry and sweet scent of them.

You may make a stronger Fumigation, but it is not to be used but in strong bodies. Thus,

Take of *Gum Anime, or Gum of Guajacum, two drams*: *Tobacco half an ounce*: *dry Coltsfoot one ounce*: *Hyssop, white Horehound, Rosemary, and Orpiment, of each three drams*: *make a Pouder*; *put a little thereof into a Tobacco-pipe, take of it twice a day fasting, and half an hour after a draught of this Decoction.*

Take of *China and Sarsa of each half an ounce*: *Scabious, Coltsfoot, and ground Ivy, Ulmaria, Maiden-hair, and Avens Leaves and Roots, of each one handful*: *whol Barley one pugil*: *Liquoris scrap'd, and Currens, of each one ounce*: *boyl them to two pints, and put to it being strained four ounces of sugar of Roses*: *Let him take half a pint twice in a day as aforesaid.*

For the Rich People you may use a moist Fumigation made of the Decoction of Herbs, which is a good

a good way to carry the strength of them directly to the Lungs: You may use al such Herbs as are proper for the Lungs and to Cure Ulcers. Take this following for an Example:

Take of *green Colts-foot eight handfuls*: *Hyssop two handfuls*: *bruise them and put them in a Pot with a little water, lute it close, then set it into the Oven when the Bread is half baked, and then take it out with the Bread, and put a Funnel into a hole made at the top, and so take in the smoak through the mouth at the Lungs, and put it out at the Nose, and it wonderfully provokes spetting.*

You must also Morning and Evening use a Cooling Liniment to the Breast. As,

Take of *Gum Tragacanth and Arabick of each one dram*: *infuse them in Rose water a day and a night*: *put then thereto of Oyl of Violets one ounce and an half*: *Fresh Butter half an ounce*: *Sal. Prunellæ two drams*: *Campbire one scruple*: *Breast-milk as much as will serve*: *Mix them in a Mortar to an Oyntment.*

To Repair a Consumption, or to Prevent or Hinder it besides Restoring Diets, which are principally made of Barley, Almonds, Pine-nuts, Rice, Nuts, and the like, which Authors declare; Milk commended at first is very good, and a Bath of hot Water of Barley and Almonds bruised: but this is not good in a Catarrh, nor while there is a putrid Feaver, nor when the Lungs are ful of Excrements.

Let his Drink be Water and Sugar, Barley Water, and Liquoris: an Infusion of Liquoris, a thin Hydromel, or a weak Decoction of China.

The End of the Seventh Book.

THE EIGHTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Heart.

The PREFACE.

THE Heart *hath many Diseases, Similary, Organick, and Common: But because few will submit to the Physitian, in regard of the nobleness of the part, which will endure long pain, but a man is suddenly gone, and there is no time for Physick; we who intend to bring all our Labors into practice, will lay down only three Diseases of the Heart, which are usual, and require many Medicines; and we shall bring them into three Chapters. The first shall be of Swooning. The second of Palpitation of the Heart. And the third of Weakness.*

Chap. 1. *Of* Syncope, *or Swooning.*

Syncope is defined by *Galen*, 12. meth. c. 5. to be a sudden failing of all the Strength: For although the Heart only suffer, and the Vital Spirits are only intercepted; yet when it fails, the rest must suffer, because they have a continual and necessary influence from it.

It is called a sudden failing of all the Strength, that it may be distinguished from other Diseases, in which the strength goes by degrees, till death come: nor is the Doctrine of *Avicen* against it, *Fen.* 1. *Lib.* 3. *Tract.* 2. *Cap.* 2. where he propounds the sign of a Syncope that comes by degrees; for although the Causes that dissolve the Spirits, do sometimes work by degrees, yet when they grow great they make a sudden Syncope: and therefore *Avicen* rather propoundeth the signs that go before a Syncope, than those that accompany it.

Moreover, This Definition may seem to agree with an Apoplexy, in which there is a sudden failing of all the strength; but in an Apoplexy there is strength in the Heart, and the Pulse is generally great and full. And also there is great hinderance of breath, with snorting; but in a Syncope the breath is no waies stopped.

The

The question is, Why? When the action of the heart ceaseth, doth the action of the Brain also cease, since the Animal Spirit is made of the Vital by way of Concoction, and must therefore stay some time in the Brain, although the Vital do not constantly come to it? We answer, That the Brain as all other parts, for the perfecting of its actions doth alwaies stand in need of adventitious heat, which is brought to it by the Vital Spirits, and therefore when the Vital Spirits come not, neither doth heat come for the Brain to perform its functions.

There are other Diseases very like to Syncope, differing only in degrees from it, namely, *Ecclysis*, *Leipothumia*, and *Asphuxia*: *Ecclysis*, is a light fainting: *Leipothumia*, or *Leipopsuchia*, or *Apopsuchia*, is a very strong and great fainting: *Syncope* is the greatest, which if it go so far that the pulse in the whol Body ceaseth to beat, it is called *Asphyxia*, which is next unto death.

The word *Synchope*, was not used by *Hippocrates*, and the Ancient Greeks; but they call'd this Disease *Leipothymia*, *Lipopsychia*, and *Asphyxia*. But it was invented a little before *Galens* time, and used for the greatest; so *Galen*, 1. *ad. Glauc. cap.* 14. saith, *Leipothymia* is an imperfect Syncope, and goes before it.

By what hath been said, it appears, that the part affected is the Heart, where the Vital Spirits are all made; by whose influence the Natural heat and Spirits in every part are made to act: therefore when that ceaseth by stoppage of the Influx of the Vital Spirits, it is necessary that the strength of all parts should fail, and their actions cease.

The immediate Cause of this Disease, is the defect of the Vital Spirits, not wholly, for then sudden death would come; but so great, that Nature is constrained (lest the strength of the Heart should totally fail) to fetch the Spirits from the other parts to the Heart, by which means the parts lose their functions.

Now this defect of Spirits comes four waies: Either because they are Naturally few; or because they are dissipated, and spent; or because they are preternaturally altered and corrupted; or lastly, because they are suffocated and destroyed: They are few by fault of the faculty making, or matter from which they are made. The Faculty is hurt, either by a disease proper to the Heart, or by consent from another part.

The proper Diseases of the Heart which are the chief, are great distempers, which overthrow the Natural temper, or destroy the substance of the parts, or of the Natural heat; as swooning Feavers, sharp, and malignant, *Synatticæ*, or *Colliquantes*, or fainting, pestilential, hectical, or *Marasmodes*, which consume; to this come organical diseases, as too much constriction and dilatation, and constant solutions, which come to the Ventricles of the Heart.

The Faculty may be hurt by consent from other parts, which have great sympathy with the Heart, as the Brain and Liver, and sometimes from the mouth of the Stomach, by reason of its neerness and exquisite sence; from whence a Syncope is divided into a Heart and Stomach Syncope. The Cardiaca or Heart Syncope, is when the Heart is principally affected; but the Stomachia, or Stomach Syncope, is that which comes by consent from the Stomach. Sometimes it comes from the Mother, by filthy vapors sent from thence to the Heart, from whence comes the Suffocation of the Matrix, Apnoea, or want of breath, and Hysterical Syncopes, as those vapors do assault the Lungs, Diaphragma, or the Heart.

The fault is in the Matter, when the Air or Blood is defective, or corrupted; from whence the Vital Spirits are generated. There is defect of Air when the Respiration and Transpiration is hindered; but the defect of Blood, is when Nutrition is hindered; there is a corruption of both, when their qualities are changed: So when the Air is infected in time of Pestilence, it begets Leipothymia and Syncope, as also stinking vapors, and sweet also do the same with some Women; and the blood is corrupted from evil meats.

Too great Evacuations, whether sensible or insensible, do disperse the Spirits. The sensible are chiefly of Blood, from the Mouth, Nose, Womb, Belly, Hemorrhoids, Phlebotomy, and great Wounds: and next of other Humors, which though they are Excrementitious, yet because of their great Evacuation the Spirits are much dispersed, and cause a Syncope. These Humors are discharged by Vomit, Stool, Urine, Sweat, the opening of a great Imposthume, especially if it be inward, as an Empyema; or outward, as in a Dropsie when the Navil is tapped.

The insensible Evacuations are by the Rarifaction of the Skin, and by the acrimony and thinness of the Humors, immoderate heat, hot Baths or Houses, great Labors. Also long watchings, and fasting, Lechery, great anger, and joy, long and violent sickness do dissipate the Spirits; as also great pain of the Heart, Stomach, Guts, Reins, Ears, Teeth, and of all Nervous parts.

An evil disposition of the Bowels doth alter and corrupt the Spirits, and whatsoever doth procure a malignant quality which is adverse to the Heart, as Air, Stinks, venemous and pestilential, taken in by the Breath, or bred in the Body from putrifaction of Humors; as also poyson taken in, or applied outward, or sent to the Heart by biting of venemous Creatures.

Lastly, The vehement returning of blood and Spirits to the Heart, and an abundance of evil va-

pors gathered about the Heart and the parts adjacent, and too much cold and thick blood gathered about the Heart and its Veins, Arteries, and parts adjacent, do suffocate and destroy the Spirits.

We lately saw a Noble Lady, a Virgin, which from her Infancy was so subject to this Disease, that with every light passion of the mind she was taken therwith, taken with a violent Syncope which ushered death in by a sudden return of blood and Spirits to her heart; for when she should have been married to a fine yong man which loved her deerly, and her Parents, Friends, and Kindred were solemnly met about it, they gave her a Pen to write her hand to the Contract; but she having not fully written her name fel down dead upon the ground: Hence we easily conjecture, that there was a great and sudden retraction of the Blood and Spirits to the Heart by a vehement passion of the mind, which choaked the Natural heat, and the Spirits therein, of which she died suddenly.

Petrus Salius Diversus saw, as he reporteth, Lib. de aff. part. cap. 4. a Girle of fourteen yeers old fal into a Syncope from abundance of cold and thick blood garhered about her heart and the great vessels: for having for a whol day a heavines of head with giddines and disturbance, she died the next day after suddenly: After being opened, the blood appeared so congealed in the great Artery and Vena Cava or hollow Vein, that taking it by the end you might draw it out like a Sword from a Scabbard.

Wherefore we judged, That the sudden death came from the intereception and stopping of the Veins by congealed blood.

This happeneth seldom, for you shal seldom see blood in dead bodies so congealed: for the veins have such a property to retain blood, that even after death they keep it thin, though without them it groweth alwayes thick.

But *Salius* gives the Reason of this Congealation by comparing it with blood without the Vessels, which as soon as it is cold, is congealed; and the sooner from the coldnes, thicknes and slyminess of the Melanchollick or Phlegmatick humor therein conrained.

Somthing like to this may be-fal blood constrained in the veins which abounding with vicious juyce thick and cold, doth so fill the greater Veins, that it stops the spirits, and so extinguisheth them: and then the blood grows cold and thick, from those humors which otherwise would have been thin.

The *Spagiricks* refer this to a congealing Spirit, made of a peculiar and extraordinary mixture of Humors, which since it seldom happeneth, the Disease is very rare: And truly a simple Refrigeration cannot cause that concretion, for then in dead bodies, especially in winter, the blood would alwayes be thick in the Veins, but we find it alwaies thin; but we may suppose that this Congealing Spirit is like that which causeth a Catalepsis, or Congealation which makes the parts inflexible.

The Chymists do acknowledge such kind of Congealing Spirits to be in many Creatures, Vegetables, and Minerals; such as are reported to be raised out of the Earth, in some Histories of Men and Beasts who have been Congealed by filthy vapors coming from Earth-quakes, or Dens; so, that their bodies became presently stiffe: And *Cardanus* saith, That such spirits are in Thunder-bolts, in his History of the Eight Mowers, who Supping under an Oak were struck stiffe, and remained as at first, the one seeming to Eat, the other to reach the Pot, and the other to Drink.

The Signs to this Disease by either are from the Subject which is more capable to receive it, or from the Fit either coming or present, or from the Causes that produce it.

The Subjects which are most fit to receive a Syncope are men who by some Natural Debility or Weakness from some Disease, become faint-hearted. Women rather than Men, especially in their Terms, or with Child: As also they who have fine Constitutions, subject to the Jaundice, Spleen, or Melancholly.

These things signifie that a Syncope is coming to them who are subject to it; Anxiety and sudden disturbance of mind, heavines in the head, giddines, an apprehension of divers colours, green, and yellow, a sudden and often change of the colour in the face, and of the beating of the Pulse.

When *Leipothymy* is present the same signs are, but greater; and there is often a cold sweat, as also the sick complain of their faintness.

But these signs shew a Syncope, A sudden failing of al strength, a slow pulse, low and at length stopping, a pale and blewish face, coldnes of al the body, especially externally; a cold sweat especially in the temples, neck, and breast, from whence the Disease is named.

The signs of the Causes are commonly manifest, for Feavers malignant, acute, syncopal or fainting, cause a proper Syncope or Swooning, are easily known: As also those external Causes which make a sudden Syncope, may be plainly seen, As Anger extraordinary and Joy, a sudden Fright, stinking smels, great bleeding, and other large evacuations, long watchings, and fasting, much lechery, and grievous pain.

These things do signifie that the Humors and the Body are thin, a sharp nose, hollow eyes, temples fallen; and the gnawing of the mouth of the stomach, trouble of mind, pricking, heat and great pain, do shew abundance of Choller.

When

When there is abundance of crude Humors you may know by the enlarging of the body, ſwelling about the breaſt, a pale colour, black and blew, a ſmal, obſcure, and unequal pulſe.

A ſwounding by way of Sympathy from other parts, is known by the ſigns of thoſe parts affected; ſo that if it come from the ſtomach, that hath been diſtempered with loathing, vomiting, gnawing, the mouth hath been bitter, and dry, and the like. The ſame Judgement is to be taken in other parts: but if you ſee no ſign of any other part affected, you may conclude that it comes principally from the heart.

Moreover, A Syncope is diſtinguiſhed from other Diſeaſes by its proper ſigns. From an Epilepſy, becauſe that hath a Convulſion, but a Syncope not: From an Apoplexy, becauſe in that the breath is ſtopt, and there is often ſnorting, and the pulſe is not much abated, except when Death is at hand; but in a Syncope the Pulſe is almoſt gone, and the breath is free. It is diſtinguiſhed from the Mother, for in that the breathing parts are moſt affected, ſo that the Patient is almoſt ſtrangled, but the Pulſe is not much altered, nor the colour of the face, but keeps its natural complection, and ſometimes is higher coloured; but in a Syncope the breath is not ſtopt, but the pulſe is almoſt gone, and the face is pale: But ſometimes a Syncope is joyned with the Suffocation of the Mother, and then the Pulſe is not perceived.

The Prognoſtick of this Diſeaſe is firſt taken from *Hippocrates*, Aph. 41. Sect. 2. *They who often and violently faint without a manifeſt Cauſe, do die ſuddenly.* For as it is ſaid, a great Syncope doth quite take away the ſtrength from the heart.

A Syncope from which a man is not recovered by Roſe Water thrown in his face, and Wine given to drink with ſneezing-pouder put into the Noſe is deadly.

When one is raiſed from a Syncope, health is not to be promiſed; for if his Pulſe return not, but his colour be wan, and he ſtill be cold, he wil quickly Relapſe, in which is danger.

That Syncope which comes from immoderate Evacuations, fear, ſorrow, or ſome evident Cauſe, is of leſs danger than that which comes from an internal Cauſe.

As for the Cure, becauſe it comes from divers Cauſes, it muſt be various.

But of what Cauſe ſoever it come, in the time of the Fit theſe are good, Lying upon the back, throwing of cold Water in the face, provoking to neez, putting of ſtrong Wine, Cinnamon, or imperial Water, Aqua vitæ, Cœleſtis, and the like into the mouth, holding of hot bread to the Noſe, loud calling and ſhaking, ſtopping of the Noſtrils, wringing of the Fingers, pulling of the Hair, rubbing, binding, and cupping.

But in reſpect of the Cauſes which are divers, you muſt vary the Cure thus:

If it come from want of meat, he wil be Cured with ſtrong Wine, and a Toaſt, or Sop: Alſo with nouriſhing Broths, and Reſtoring diſtilled Waters among other things, a diſh of Eggs with ſugar, Wine and Cinnamon deſcribed in the following Chapter.

If it come from thinneſs of the Humors by which the ſpirits do eaſily flie away, give him ſweet things and meats of good juyce, and thickning; let the pores of the skin be ſtopt with Oyl of Roſes, and let the Patient ſtay in a cold place.

If it come from the Mother, you muſt give Medicines for that.

If it come from ſome evil quality, give Cordials and Antidotes, ſuch as are preſcribed in malignant Feavers.

If from poyſon, give things to expel it: Firſt a Vomit, and then Treacle; and then if he feel burning or gnawing in the Guts, let him take Milk or Butter, or fat Broth, or cooling Cordial Potions.

If it come of immoderate Evacuation, let the Patient be refreſhed with Scents, Meat, Drink, ſleep, and reſt.

If from too great loſs of Blood, lay him upon his bed, with his Head backwards, daſh his face with cold Water, give him a little Wine with cold Water.

If it come of too much Purging, give him new Treacle, or old if you cannot get new, with two grains of Opium diſſolved in Wine, or three grains of Laudanum which is better. And let the Belly be anointed all over with this following Oyl:

Take of *Oyl of Myrtles, and Quinces, of each one ounce and an half: Oyl of Wormwood one ounce: With a little Roſe Vinegar mix them and anoint often.*

Give a Clyſter of ſteeled Milk with three Yolks of Eggs, and two drams of Philonium Romanum.

Uſe Frictions of the Arms and upper parts, give him a Sop in Wine, or Wine alone.

And laſtly, Every Evacuation whether it be of Blood from the Noſe, or Womb, or other parts, or of Humors by Vomit, or Stool, muſt be ſtopped with their proper Medicines preſcribed in their ſeveral Chapters.

That Syncope which comes from too much Sweat, is cured by Medicines that reſtrain Sweat; as with Cold, or Roſe Water alone, or with a little Vinegar ſprinkled upon the Face and Hands. Alſo

so let the Air be cooled with the same Water, and with Fanning. Apply cold Epithems to the Heart made of Rose, Sorrel, and Borrage Water, with Pouder of Diamargariton frigid, with a little Wine to make it pierce.

You must also give often cooling Juleps made of Syrup of Sorrel, Violets, and Apples, or Lemmons, with cooling Waters, and Lapis Prunellæ. Let the Pores be closed with anointing the Skin with Oyl of Roses, Myrtles, and Mastich. Let him abstain from Wine. Let him not be rubbed, but let him move often gently, being lightly covered.

Let his bed be perfumed with this Pouder following:

Take of *the flowers of Water-lillies, red Roses, of each three ounces: the best Labdanum half an ounce: Storax two drams: Myrtles, and grains of Sumach, of each two ounces. Make a Pouder.*

If it come from suffocation of the Spirits, you must call them forth by Frictions, Ligatures, Cupping-glasses, and the like. And if this Suffocation came of Repletion, you must bleed plentifully, but by degrees.

If it comes from terror and fear, you must also bleed, lest it cause an Obstruction or Inflamation.

Chap. 2. *Of the Palpitation, or Breathing of the Heart.*

As in a Syncope the motion of the Heart is diminished, so in this Disease it is depraved. It is wrongly stiled by some a trembling of the Heart, when trembling is a passion of the Animal and voluntary motion, and is not proper to any parts but such as have voluntary motion.

Galen in his Book of Trembling, Palpitation, and Convulsion, saith, That Palpitation comes only from the Disease that is from the Cause which lifteth up, and depresseth the part, without any help of the Faculty; but Trembling comes partly from the Faculty, partly from the Disease. Hence it is that many using the word Palpitation indifferently to any part, think it is in the Heart, as in the Skin and Muscles, in which it comes from wind driven violently thither: for if the Heart be moved as a Bladder by water or wind, they suppose that to be a Palpitation. But the reason is different; for the Skin and Muscles cannot naturally dilate and contract themselves, but by Diseases. But the Heart hath a Natural Faculty to contract and dilate it self, therefore a Palpitation cannot be without its motion. And they do in vain muster up *Galens* Reasons, so thought by them, to prove that the Palpitation of the Heart comes not by Nature, but by a Disease, or cause of a Disease. For *Galen* in all those places speaks of no other Palpitation than that which is in the Skin and other external parts, and not of the palpitation of the Heart, which is of another Nature; and *Galen* 2. de sympt. caus. cap. 2. saith that the Palpitation of the Heart and Arteries, is different from that of the other parts.

Therefore the Palpitation of the Heart is an immoderate and preternatural shaking of the part, with a great Diastole or Dilatation, and a vehement Systole or contraction which sometimes is so great that as *Fernelius* observes, it hath often broken the Ribs adjoyning, & sometimes displaced them which are over the Paps; and sometimes it hath so dilated an Artery forth into an Aneurism as big as ones fist, in which you might both see and feel the pulsation.

This immoderate shaking of the Heart comes from the Pulsative Faculty provoked.

But here may be objected, That in Feavers all these things are found, for this is an immoderate Systole and Diastole, by the provocation of the Faculty through some troublesom matter, or by encrease of heat in the Heart.

To this we answer, That the motion of the Heart in Feavers is distinguished from Palpitation, only by its degrees, and the depraved motion of the Heart when it is vehement, is called Palpitation; but if it be not vehement, it is called a quick, great, and swift Pulse, and is referred to the differences of Pulses.

Now the Efficient Causes of this Palpitation may be referred to Three Heads: Either it is somwhat which troubleth and pricketh; or necessity of Refrigeration; or defect of Spirits: which two latter may be referred to the encrease of Custom.

The Molesting Cause is most usual, so that many Authors knew no other, the other are rare, and that is either a vapor or wind which troubleth the Heart either in quantity or quality, or both. The quality is either manifest or occult.

A vapor troublesom in a manifest quality, is either in the Heart and its parts adjoyning; or it is sent from other parts; and this suddenly getting to the inmost parts of the Heart, doth stir up the Expulsive Faculty, which being Naturally very strong, ariseth powerfully with all its force to expel the enemy.

In

In the Heart, and thereabout, especially in the Pericardium, are gathered sometimes cold and thick Humors, which send up vapors to the Ventricles of the Heart, which cause Palpitation.

But from more remote parts, vapors and wind are sent to the Ventricles of the Heart; as from the Stomach, Spleen, Mother, and the other parts of the lower Belly.

Many times a Vapor that troubles the Heart by an occult quality, ariseth in malignant Feavers, Plague, and after Poyson, and sometimes from Worms putrified, and the terms stopped from corrupt seed, or other putrid matter which do much stir up the Expulsive Faculty thereof.

Divers Humors do molest the Heart, either with their quantity or quality; so too much Blood oppressing the Veins, Arteries, and Ventricles of the Heart, so that they cannot move freely, makes a Palpitation by hindering motion, which that the Faculty may oppose it moveth more violently. So Water in the Pericardium, being in great quantity, doth compress the substance of the Heart and its Ventricle, so that they cannot freely dilate themselves. The same do Humors flowing in abundance to the Heart, as it happens sometimes in Wounds, Fear, and Terror.

Humors offending in quality, hurt the Heart, if they be venemous, putrid, corrupt, sharp, or too hot, especially burnt Choller coming to the Heart, and provoking its Expulsion.

Also Tumors, though seldom, cause this Disease; as Inflamation of the Heart, Imposthumes, or Swelling in the Arteries of the Lungs neer the Heart; which *Galen* saith befel *Antipater* the Physitian, 4. de loc. aff. by which, after an unequal Pulse, he fell into a Palpitation and an Asthma, and so died: so *Dodonæus* reports that he found a Callus in the great Artery next to the Heart, which caused a Palpitation for many yeers. Also Tumors in the Pericardium, whether they be without humors and scirrhus, or with humors in them, as the Hydatides or watery Pustles, and little stones, bones, and pieces of flesh are sometimes growing in the Heart, which cause Palpitation. So *Platerus* reports, that in one who had a long Palpitation, and died thereof, there was found a bone in his Heart. But *Schenkius* reports, that in a Priest who was from his youth to the age of forty two troubled with a Palpitation, there was found in the bottom of his Heart an Excrescens of flesh which weighed eight drams, and resembled another Heart.

The Second Cause of Palpitation is necessity of refrigeration, which is, when there is a preternatural heat in the Heart, by which the Spirits are inflamed within, and therefore the motion of the Heart and Arteries is encreased, that what is spent, may be restored, and the heat cooled; and this comes sometimes from an internal cause, which is rare, but oftener of an external, as anger, vehement exercise, and the like. As *Platerus* observed in a yong man, who being hot and angry at Tennis, fell into a Palpitation of the Heart, and so died.

The third Cause, is the defect of Spirits which comes by hunger, watching, anger, Joy, fear, shame, and great Diseases, and other causes which do suddenly dissipate the Spirits, which defect the Heart laboring to repair, that it may beget more quick and plentiful, and send them into the whol Body sooner, it doth enlarge its motion, and make it quicker.

You must observe for conclusion that it is more ordinary to see a Palpitation which comes by consent from other parts, than from the Heart it self: For it hath a consent with all parts by the Veins and Arteries, by which, Vapors, Wind, and Humors are sent. Which all shall be shewed in the Diagnosis following:

The Diagnosis or knowledg of this Disease, is directed either to the Disease, or the Causes which produce it.

The Disease is subject to sence; it may be felt with the hands, sometimes seen and heard; for the Artery may be seen to leap especially in the Jugular. And *Forestus* saith it may be heard, by an Example of a yong man, that they who passed by might hear it by laying their Ear to the Window.

Also the Causes are distinguished by their Signs: A hot distemper is known by the greatness of the Pulse and swiftness, by a Feaver and heat of the Breast, by great and often breathing, and desire of cold things.

If the Palpitation come of wind, it quickly comes and goes, and is presently raised by little motion, and the Breath is difficult, with trembling sometimes at the knees, mists in the Eyes, noise in the Ears, and sometimes pain of some part, which quickly is gone; but you must gather the Nature and quality of the Vapor by the signs of the Humor which aboundeth in any part, because vapors do always arise from Humors.

If the Palpitation come from Humors in the Heart, the Disease doth not come so suddenly, and continueth longer, and you may know what kind of humor it is by the signs of the Humor which abounds throughout the whol Body. And especially if it be from Blood, from which it most often proceedeth; and this is known by a divers and unequal Pulse, sometimes great, sometimes smal, slow, and swift, to which the Breathing answereth in proportion; the Patients heart seemeth to be bound and oppressed, as appears by the exceeding heat, distension of the Veins, redness of Face, the time being Spring, the Age, Region, and Diet causing Blood to abound.

That

That which comes by consent from other parts, is known by the proper signs of the parts affected, so we know that it is from the stomach, when there is want of Appetite, loathing, vomiting of base Humors, and gnawing at the Stomach. A troublesom breathing about the Pancreas or Spleen, or any other disease of the Spleen, sheweth that the matter lurketh there, from whence the vapors fly to the Heart; so suppression of the Terms, and Hysterical fits, declare that it comes from the Womb.

The Water abounding in the Pericardium is harder to be known, but we may conjecture, if the Pulse be weak and faint, and the Patient bemoaneth himself, that his heart as it were is somtimes in Water, and is suffocated, and if it be constant, and he incline to an Atrophy or Hectick.

If malignant humors cause it, there will be great change in the Pulse, a loss of strength, somtimes fainting, and other signs of malignity.

If it come from a Tumor there is remarkable variety in the Pulse, and the motion of the Heart is different from the natural, very unequal and inordinate, and if the humor be hot, there will be great inflamation in the Body, great thirst, difficulty of breathing and fainting will follow with death: but if the Tumor be hard, and in the Pericardium, the disease is constant, and the Patient decayes by degrees without any manifest cause: if fleth, or any more solid thing grow to the heart, there will be a continual Palpitation from the beginning of the Disease to the end of Life.

Lastly, You may know when it comes by want of Spirits, by the precedent causes, which destroyed the Spirits, and by the quick and smal pulse, and when it comes from the least labor or motion. Somtimes the like befals them that are well from walking or other motion, with a change of Pulse, and a resembling Palpitation.

The Prognostick is to be taken thus: It is dangerous from the hinderance of the motion of the Heart, by which Life is preserved, and it brings Syncopes and death: For it is a true Observation of *Galen*, Com. Aph. 41. Sect. 2. and 5. de loc. aff. cap. 2. All that in youth, or in declining age are troubled with the Palpitation of the Heart very much, die before they are old; for the often Palpitation is a sign that the Vital faculty was very weak.

A Palpitation by Propriety is worse than by consent, and somtimes deadly. And that which is of an internal, is worse than that which comes of an external Cause, unless it be from poyson, or some great wound.

If it come from a Tumor, or solution of Unity, it is incurable.

The Cure is various, according to the variety of the Causes: and first that which comes from a peculiar distemper of the Heart and Pericardium, is incurable; therefore we must look only at the Cure of that which is by consent, which depends upon the divers diseases of the parts, whose Cure must be sought in their proper Chapters.

But besides those Remedies which take away the Cause, you must use those which asswage the Symptomes by refreshing the Heart, and strengthening it, and which discuss the vapors which arise from melancholly, or crude & waterish Humors; as Cordial Juleps, Opiates, Epithems, & Perfumes, which are prescribed in weakness, and these that follow.

Take of *Conserve of Balm, Rosemary-flowers, Borrage-flowers, and Clove-gilly-flowers, of each one ounce: Confection of Acorns and old Treacle, of each one dram: the Pouder of Diamber, and Diamoschi dulcis, of each one scruple: with the Syrup of Citron Barks make an Opiate, which let him take often.*

Take of *Bugloss, Rose, and Orenge-flower Water, of each two ounces: the syrup of Clove-gilly-flowers, one ounce and an half: Cinnamon Water half an ounce: the spirit of Roses two drams: Confection of Acorns one dram: mix them and give two spoonfuls now and then.*

This following Liquor which immirateth the Juyce of Hearts described in the following Chapter, is good.

Take of *Hogs or Sheeps Hearts three: Cinnamon and Cloves of each one dram: Lettice and Sorrel seeds, of each one dram and an half: white Wine two ounces: Borrage, Scabious, and Rose Water, of each one ounce and an half: Confection of Alkermes, one dram: boyl them all between Two Dishes, and let him take two spoonfuls of the Liquor morning and evening.*

Take of *Red Roses and Rosemary-flowers of each two drams: Lavender flowers one dram: Angelica seeds, Citron peels, Cloves, Cinnamon, and Mace, of each half a dram: Saffron one scruple: Musk and Amber-greece of each six grains: Make a Bag with red Silk and sprinkle it with Rose water and white Wine, and apply it warm to the Heart.*

Take of *Ointment of Roses half an ounce: Oyl of Cinnamon and Cloves of each six drops: Musk and Amber-greece of each four grains: Mix it for a Liniment for the heart.*

Purging Clysters and Carminative to expel Wind are often to be given.

But in the Fit it is best to open a vein; And *Galen* witnesseth 5. de loc. aff. cap. 2. That he never did it without profit.

Same

Some apply Cupping Glaſſes without Scarrification to the Breaſt, which they ſay are excellent to diſcuſs Wind there contained. Others to the Hypochondria, when the matter of the Diſeaſe is there.

But *Zacutus Luſitanus* applied a Cupping Glaſs with Scarrification to the heart with wonderful ſucceſs, as you may read in *prax.admir.obſ.*133 *lib.*1.

Others commend true Rhapontick given to two ſcruples in Wine, or Wine wherein the ſame hath been ſteeped.

Chap. 3. *Of WEAKNESSE.*

ALthough Weakneſs of Strength doth generally comprehend the hinderance of al Actions, Animal, Vital, and Natural; yet more particularly it comprehends the Vital which are known by a Weak Pulſe: yet this Weakneſs uſeth to be found in al great Diſeaſes, in which Nature doth yeild or reſiſt the Cauſe.

Therefore as in Palpitation the Action of the Heart that is Pulſation is depraved, ſo in Weakneſs it is diminiſhed.

Which is the ſame with a Syncope, but it differs in this, In a Syncope it is ſo little that it is hardly perceived; but in Weakneſs the Pulſe is manifeſt and not ſo little.

In this alſo the Animal Faculty is alwaies offended: Hence comes weak motion without hurt of the Brain, Nerves, or Muſcles, but from the defect of Vital Spirits which are not ſo ſufficiently ſent to the Head that they may be made Animal.

The immediate Cauſe of Weakneſs is Defect of the natural heat and ſpirits from which the life and ſtrength of the parts do depend.

And this Defect is in every part from the Defect of Vital Spirits, and heat flowing from the heart.

Now the Vital Spirits are Defective, either becauſe they are not bred many; or becauſe they are diſſipated after they are Bred, or Corrupted, or Suffocated, as we ſaid in a Syncope, where there is this difference, That in a Syncope the Cauſes of Defect of Spirits, do ſuddenly produce their effect; but in Weakneſs they operate by degrees. And therefore in Syncopes and Leipothymia al the Vital Spirits almoſt, do ſuddenly fail, but in this there are fewer then ought to be communicated to every part.

Moreover, When the Natural heat wants not only adventitious heat, but alſo radical moiſture to feed upon: if this moiſture be wanting and diminiſhed, the natural heat muſt be leſs, and the ſtrength abated.

Now the Cauſes which hinder the ſpirits from being Generated, or maketh them diſperſe themſelves, or Corrupt, or Suffocate them, are propounded in the Treatiſe of a Syncope.

The Diagnoſis of this Diſeaſe needs no Explication becauſe it is manifeſt, and the Patients do complain of their Weakneſs. But the ſigns of the Cauſes were Propounded in the Syncope.

The Prognoſtick depends upon the various diſpoſition of Cauſes, for as they are greater or leſs, there is more or leſs danger.

The Cure of this Diſeaſe is to be directed to two things, To the taking away of the Cauſe, and the Reſtauration of the Heart and vital ſpirits.

The Cauſes are, almoſt al great Diſeaſes, in which either Nature yeilds to, or reſiſteth with difficulty, therefore the taking away of the Cauſe belongs to the Cure of almoſt al Diſeaſes: which you muſt take from their proper Chapters.

But the ſtrengthning of the Heart, and reſtoring of the vital ſpirits are to be here declared; ſometimes to be preferred before the Cure of the Cauſe, when death ſeems to be at hand: but we muſt alwayes take heed leaſt when we encreaſe the ſtrength we encreaſe the Cauſe of the Diſeaſe: and therefore in a hot Diſeaſe you muſt uſe more temperate Cordials, but in a Cold Diſeaſe thoſe that are more hot.

Firſt then mix Cordials in his nouriſhment, as Confectio Alkermes, or Confectio de Hyacyntho in Broths, or with pleaſant Wine or Cinnamon Water, if there be great weakneſs.

Boyl alſo between two Diſhes a piece of a Leg of Mutton, after the skin and fat is taken off, and after that let the Patient drink the Broth, being ſtrained, at one draught. Or,

Take the Fleſh of a Capon after the skin and fat is taken away, cut it in pieces, and put it in a glaſſed Pot well Luted, and ſet it in Balneo Mariæ to boyl for five hours, then let the Patient take two or three Spoonfuls of the Liquor in all his Broths.

Or you may make a distilled Water thus:

Take *a Capon or an Hen, after the skin is taken off, and the fat, cut it in pieces; then powr upon it Water of Bugloß, Borrage, Sorrel, Roſes, and Orange Flowers, of each half a pound: the Pouder of three Sanders, Aromaticum Roſatum, and Cinnamon, of each half an ounce: yellow Sanders one ounce: Lemmons ſliced, three. Diſtill them according to art, which muſt be given every hour by the ſpoonful.*

The Juyce of Legs of Mutton only is of much uſe.

Half roaſt a Leg of Mutton, and ſlaſh it upon the Spit; take the Juyce and boyl it a little in the diſh, and give it either alone, or with Broth, or with Yolks of Eggs.

Valeriola doth much commend the Juyce taken out of Sheeps Hearts. And *Zacutus Lucitanus* confirms it by his Experience, ſaying, That he with this only Medicine a month continued, cured a rich man, who often ſwouned through weakneſs of the Vital Faculty, and reſolution of the Blood and Spirits, when many other Medicines had been uſed in vain.

The Juyce is thus taken forth:

Slit the Heart of a Sheep or Goat in the middle, then waſh it well, and laſt waſh it with Roſe Water; then cut it in ſlices and put it in a glaſſed Veſſel with a few Cloves, and no other Liquor. And after the Pot is well luted, put it into the Oven after it is drawn, till the Juyce come forth. Give this to the Patient to drink.

The Italians uſe Caudles of Yolks of Eggs, Wine, Sugar, and Cinnamon, which is very reſtorative.

Zacutus Lucitanus makes a fine diſh of twenty Yolks of Eggs; as you may ſee in the 107. Obſervation, Lib. 2. of his Admirable Practice.

You may make Cordial Juleps thus:

Take of *the Water of Bugloß, Roſes, and Orange flowers, of each one ounce: Syrup of Apples and Lemmons, of each half an ounce: Confectio Alkermes one dram: Cinnamon Water two drams. Make a Julep.*

Or make this following mixture:

Take of *white Sugar two ounces: moiſten it well with the beſt Cinnamon Water; then put to it as much Spirit of Vitriol as is ſufficient to make it ſharp; then add of the Eſſence of Cinnamon four drops; the Eſſence of Mace, Nutmegs, and Annis ſeeds, of each three drops; the Eſſence of Cloves two drops. Mix them, and take it either by it ſelf, or in Broth.*

You may alſo make a reſtoring Opiate thus:

Take of *Conſerve of Roſes, Bugloß, Borrage, and Clove gilli-flowers, of each one ounce: Citron Barks, and Nutmegs candied, of each three drams: one candied Myrobalan; Confectio Alkermes half an ounce: the Spirit of Roſes, and Eſſence of Citrons, of each half a dram: the Eſſence of Cinnamon ſix drops: With the Syrup of Apples make an Opiate; take it often.*

This Water following is excellent:

Take of *the Jelly of Harts-horn drawn with white Wine, four pints: the Blood of a Lamb and a Calf clenſed with the hands from all fibres, of each two pints: Muſchadel, Canary, and Malago Wine, of each three pints: of Calfs Hearts cut in pieces four: Crums of new white Bread dipped in Milk two pound and an half; the Juyce of Balm one pint and an half: Roſe and Orange Flower Water, of each one pint: great Citrons ſliced three: Cinnamon four ounces: Mace one ounce: Put them in a large glaß Still, and ſtill them in* Balneo Mariæ.

You may make a moſt excellent and precious Cordial Water after this manner:

Take of *Amber-greeſe two drams: Muſk two ſcruples: Lignum Aloes one dram and an half: the white part of Benjamin three drams: after they are bruiſed and mixed, put them into Spirit of Wine, and ſetting them upon a gentle fire draw out the Tincture fully; and then filter off the Liquor, and draw off half the ſpirit with an Alembick upon the aſhes with a very gentle fire; keep the Liquor cloſe ſtopped in a Glaß, with a Cork waxed over, and a bladder; of which you may give two, three, or four drops in Broth, or in Juleps, or in this following Syrup.*

Take of *Cinnamon Water four ounces: the beſt Roſe and Orange flower Water, of each ſix ounces: Mix them, and diſſolve therein as much Sugar candy as you can, and make it into a Syrup without fire; with a ſpoonful whereof, mix four Drops of the aforeſaid Cordial Liquor.*

Of the Ingredients remaining from the former Liquor, with as much of Damask Roſes, and four times as much Benjamin, you may make Cakes to perfume the Chamber.

Apply both Liquid and Solid Epithems to the Heart, and yong Pidgeons ſlit and ſprinkled with Cordial Pouders.

Apply

Apply to the Stomach, bags of Spices dipped in Wine. Let the Stones and privy Members be fomented with Confection of Alkermes diſſolved in Wine.

Let the Arteries of the Temples, Hands and Feet be touched with Confectio Alkermes, adding a little Cinnamon Water.

Apply this following to the Noſe:

Take of *the Leaves of Balm, Bazil, and Marjoram, of each two drams: Citron peels, yellow Sanders, and Cloves, of each one dram: Saffron half a ſcruple: Amber-greeſe ſix grains: Muſk four grains: tie them in a clout and dip them in Roſe and Cinnamon Water, and ſmell thereto often.*

Or make a Balſom to anoint the Noſtrils with the Chymical Oyls aforeſaid of Nutmeg, Cinnamon, and Cloves, with a little Wax.

The End of the Eighth Book.

THE NINTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Stomach.

The PREFACE.

AS there are divers Actions of the Stomach, so there are divers Hinderances of those Actions which Cause variety of Diseases: For this part being ordained to Concoct meat, and make the Chyle; for the performance thereof first it is constrained to desire Meat and Drink by the Appetite which may be diminished, abolished, or depraved. When it is abolished, it is called Anorexia, *&* Apolitia: *When 'tis diminished, it is called* Inappetentia, *and Loathing: But when it is depraved, it is called* Doggshungs, *or* Pica, *or* Malacia: *Too great desire of Drink is called* Sitis Morbosa: *These Diseases mentioned do concern the attractive Faculty, they which concern Concoction, as it is diminished, abolished, or depraved, are comprehended under the name only of Concoction hindered; if the Retentive and Expulsive Faculty be hurt, it consists in Vomiting and Hickocks: There are divers kinds of Vomitings according to the divers Condition and nature of the Matter Vomited forth. And because the Stomach is of exquisite sence of Feeling by reason of the famous Nerve it hath from the sixth Conjugation, it is therefore as other sensible Parts, subject to pains; and it hath somtimes Tumors, (as other parts) and Inflamations, Imposthumes, and Ulcers. That therefore we may in this Book explain all the Ordinary Diseases of the Stomach, we will Comprehend it in Eleven Chapters. The First, Of Inappetentia, or Loathing of meat. The Second, Of Fames Canina, or Dogs Appetite. The Third, Of Pica and Malacia, or Green-sickness. The Fourth, Of Sitis Morbosa, or diseased Thirst. The Fifth, Of Concoction hindered or hurt. The Sixth, Of Hickocks. The Seventh, Of Vomiting. The Eighth, Of Vomiting Blood. The Ninth, Of the Disease called Chollera. The Tenth, Of Pain in the Stomach. The Eleventh, Of its Inflamation, Imposthume, and Ulcer.*

CHAP.

Chap. 1. *Of Want of Appetite, or Loathing of Meat.*

INappetentia, and Loathing, is either from the aboliſhed or diminiſhed Action of the ſtomach: When it is Aboliſhed it is called *Anorexia*, & *Apoſitia*: but when it is Diminiſhed it is called *Diſorexia*, but by Cuſtom *Anorexia*, & *Apoſitia* are uſed for both.

The Cauſes of this Diſeaſe are divers, which that we may bring into Order, let us conſider the Natural Cauſes of Hunger or Appetite: Theſe are called by *Galen*, lib. 1. de ſymp. cauſ. cap. 7. Symptomes: and are Five, The Firſt whereof is emptineſs of the parts. The Second is the Natural Appetite of thoſe parts ſo emptied. The Third is the Sucking and Attraction of the Meſaraick Veins in the Stomach and Guts. The Fourth is the ſenſe of their ſucking in the Stomach. The Fifth is the Animal Appetite wch cometh from the Nerve in the mouth of the ſtomach which comes from the Brain, and is endued with great ſenſe and feeling. As alſo the Melancholick Humor which comes from the Spleen to the mouth of the ſtomach, which with its ſharpneſs gnaws the inmoſt Tunicle of the ſtomach, and is like ſawce to ſtir up Appetite; which that it may be natural, it is neceſſary that al thoſe Cauſes be in Order; for if there be any fault in either, then there is a hurt or hinderance of Appetite.

Therefore the Firſt Cauſe which is Emptineſs of Parts, if it be wanting there is no Attraction made by them from other parts and the ſtomach, and ſo there is no Appetite: now this Emptineſs is wanting either when the parts are filled with plenty of crude juyces, by reaſon of gluttony or drunkenneſs; or for want of exerciſe, or uſual evacuations, or when there is ſo much fat that it is ſufficient to nouriſh the parts: Alſo the great ſtoppage of the pores of the skin, doth hinder the emptineſs of the parts: or great weakneſs of the natural heat, ſo that it can diſperſe none or but little of the ſubſtance of the Parts: or the calling of that heat to the concoction of the matter of a Diſeaſe whereby the nouriſhment of Parts is neglected, as in Feavers.

The Second Cauſe is Natural Appetite, and the Attraction of nouriſhment to the ſtomach; and this is depraved when the Parts though empty, wil not draw by the veins, by reaſon they have loſt their ſtrength, but languiſh and forget their duty: As happeneth in acute, malignant, peſtilential, ſyntectick, and hectick Feavers: And in immoderate evacuations, as in Flux of the Liver, Womb, Hæmorrhoids, Bleeding at the Noſe, Great Sweat, much Lechery, long Faſting, and the like.

The Third Cauſe is, The Attraction of the ſtomach by the Meſaraick Veins, which uſeth to be depraved by ſtoppage of thoſe veins, by which means the empty Parts cannot attract their Chylus, nor make the mouth of the ſtomach ſenſible: ſo we may perceive in Children troubled with Struma, to conſume by a long Flux of Chyle, by reaſon al the Meſentery is full of Glandles which ſtop its Veins, and hinder the paſſage of the Chyle to the Liver, by which means it is ſent half concocted forth by ſiege, and the Parts are deprived of their neceſſary nouriſhment.

The Fourth and Fifth Cauſes, which are Senſe of Sucking, and Animal Appetite, do require a good diſpoſition in the ſtomach, brain, and nerves: Therefore whatſoever can alter their diſpoſitions may alſo deſtroy Appetite; ſo every great diſtemper of the belly, eſpecially if it be hot and dry, doth hinder Appetite. Great heat by diſperſing the moiſt ſubſtance of the ſtomach, doth take away Appetite; as alſo great Cold not only poſitive as when the bowels are ſo cold that they are ſtupified by Air, Water, Froſt, Snow, and the like; but alſo privative, when the native heat is ſpent, which *Galen* cals Narcoſis or Stupefaction, as by long bleeding, feavers, and the like, by which the ſtrength of the ſtomach and other Parts is conſumed. Evil alſo and corrupt Humors; whether hot or cold, do cauſe want of Appetite: The hot are chollerick, aduſt, putrid, or virulent, whether they are bred in the ſtomach for want of Concoction, or brought from other infirm Parts.

The Cold Humors are, Flegmy and Slimy, gathered in the ſtomach by evil Concoction, or coming from the whol body, as in them who by often Vomitings bring the corruption of other Parts into the ſtomach.

Or from the Brain by Catarrhs in which the ſtomach uſeth to be troubled with Flegm: The ſuppreſſion of the Terms and Hæmorrhoids alſo, by choaking and ſmoothering the natural heat do alſo diminiſh the Appetite.

Moreover, The diſtemper of the Brain and Nerves Cauſe that the Sucking is not felt in the ſtomach in them who have loſt or depraved the Animal Faculty; therefore they are ſick in mind, as in an Apoplexy, Lethargy, Phrenzy, Madneſs, and the like; as alſo in a Palſie by reaſon of the Obſtruction

of

of the Nerve of the sixth Conjugation which comes to the Stomach, or by reason of the stupefaction thereof, by the use of cold and narcotick things.

The knowledg of this Disease is manifest, for the Patient will complain of his want of appetite, and loathing of Meat. But the signs of the Causes are partly manifest, and partly to be discovered by art.

And first, they which cause the want of emptiness, are known by former high feeding, repletion, want of exercise, or evacuation, long sleep, and other Causes of crude Juyces; as also if the body be full, and the Veins swoln. Also the thickness of the Skin signifieth the same, for that hinders the dispersing of the nourishment, as also some great disease in some particular part, by which there is a dispersing of the Natural heat in the whol Body, so that it is so weak that it cannot concoct the nourishment brought to the parts, and supply its wants.

The signs of the second Cause are manifest, namely acute, malignant, pestilential, and synectick Feavers, strong evacuations, and other Causes, by which there is a great decay of Natural heat in the parts, so that they cannot attract necessary nourishment.

The signs of the third Cause are obstructions, whose signs are known in the diseases of the Liver, Spleen, and Melentery.

The signs of the fourth and fifth Cause, need a more curious search, and first heat in the Præcordia, especially in the Stomach, thirst, dryness, and bitterness of the Tongue and Jaws, and a Feaver, do signifie a hot distemper of the stomach, and abundance of Choller. And if this hot humor do flow from other parts, the disease of that part will shew it, as inflamation of the Liver, or other part. But if no other part seem to suffer, you must conjecture that the fault is in the Stomach, or that evil meats have been received. To these are joyned Cardialgia, Heart-scalding, Nausea or loathing, Vomiting, and Purging, the Nature of which humors are known by what is sent forth. A cold distemper and much flegm is known by cooling Causes afore going, or such as disperse the Natural heat, and extinguish it; as also from the sence of weight in the Stomach, from sharp belching, or from a slimy thick humor sent out of the mouth, or by stool.

The same is signified by a long Catarrh, and a disease in some part which may send flegm or melancholly to the Stomach, as of the Spleen, Womb, or the like. Also the distempers of the Brain and Nerves are to be known by their proper signs.

As to the Prognostick: As a good Appetite is good in all Diseases; as *Hipp.* Aph. 33. Sect. 2. saies, To be right in mind, and to be willing to take that which is brought, is good: so want of Appetite useth to be an evil sign. For it signifieth a great digression from the Natural state; and it comes, as *Galen* teacheth, Com. in 3. Epid. either from evil Humors in the Mouth of the Stomach, or from the loss of the Faculty, whose duty it was to be sensible of the want of nourishment, and consequently to desire it. So *Hipp.* in 1 Epid. saith concerning men in Consumptions that died in the time of an Epidemical disease, they alwaies abhorred meat and drink. And so *Galen*, Comment. in 3. Epid. saith that he hath seen many in a Plague time which could take no sustenance, and died: But some who were stronger, and took courage, and did eat, recovered. So in *Hipp.* 3. Epid. Sect. 1. *Ægr.* 2. *Hermocrates*, who died the twenty seventh day, *abhorred meat all the time, and in the last daies could not tast.* And Sect. 2. of the same Book, *Ægr.* 6. Euryanactis *her daughter, abhorred meat all the while, and drank nothing worth speaking of, died about twelve daies after.*

But we must observe, that loathing of meat is bad if it come from the destruction of the Natural heat: but it is not so dangerous if it come from abundance of evil humors, and Cacochymia; as you may see in *Hipp.* 7. Epid. by the Son of *Cleomenis*, who without a Feaver abhorred meat for two months, through abundance of crude and viscid flegm, which he at last vomited up. So in the beginning of Diseases, and especially of Feavers, want of Appetite is not so dangerous, because then Nature being busie about the concocting of filthy humors, is called from her usual desire of meat. But after, when the Feaver is appeased, and the humors that caused the Disease being spent, she returns to her old custom.

In Children, want of Appetite is worse than in others, because their substance is moist, and easily dissipated, and requires more use of nourishment to restore them.

In men recovered of a Disease, loathing threateneth a relapse, by reason the reliques of the Disease cause it.

In a continual Disease, loathing and sincere dejections are evil. *Hipp.* Aph. 6. Sect. 7. loathing is an evil sign in long diseases: but they who are like to escape, have the contrary; that is, a good appetite. But sincere dejections coming, do cause a worse Prognostick; because *Hippocrates* understands by sincere dejections, such as have no humidity mixed with them, when the humor alone without any Water, is cast forth, whether Choller or Melancholly; for these stools do shew that all the Natural humidity is burnt up by the heat of the Feaver.

In long Diseases of the Guts, loathing of meat is evil, and with a Feaver worse; *Hipp.* Aph. 3. Sect. 6. when there are deep and putrid Ulcers in a dysentery, the Stomach suffering with the Guts doth

doth not well concoct, which offence arising higher, affects the mouth of the Stomach with loathing. There are some in Dysenteries, who abhor meat from the beginning of the Disease, by reason of the evil humors which come from the Liver; for the superfluous part of them comes to the mouth of the Stomach, which is not alwaies dangerous. But in long Diseases when it is so, there is either a putrifaction about the Ulcer, or a great Inflamation, both which are desperate.

The Cure of this Disease, if it come from the distemper of other parts, must be by the Cure of it. But if it come only from a fault in the Stomach, it is to be reduced to a hot or cold distemper joyned with matter.

A hot distemper is to be cured first by purging of Choller gently and often. And this may be made of Rhubarb, Myrobalans, Tamarinds, Syrup of Roses, or of Succory with Rhubarb; Or if the Patient be subject to vomiting, you must give him a gentle one.

The same Humor is to be altered with Juleps or cooling Broths, in which you must not omit the Spirit of Vitriol or Sulphur; because all sharp things do not only allay Choller, but provoke an appetite. Hence it is that we use Sallets in Summer, to provoke appetite.

Or you may alter and purge this Humor at once with a convenient Apozeme, to which, for the Stomach, ad half a handful of Sea Wormwood, and half an ounce of Citron Myrobalans.

After Purging, Marmalad of Quinces is good to strengthen the Stomach; or the Syrup mixed with Syrup of Wormwood, the Lozenges of Diamargariton frigid, or Triasantalon, or Diarrhodon abbatis, if there be a suspicion of Obstruction. Or this Opiate:

Take of *Candied Lettice, and Guords, of each one ounce: Conserve of Sorrel, Roses, Succory, and Bugloss, of each half an ounce: red Sanders, Coral, and Pearl prepared, of each half a dram: the Troches of Spodium and Sorrel seeds, of each one scruple. With Syrup of Lemmons make an Opiate, of which let him take the quantity of a smal Nut morning and evening, drinking after a little Wine and Water.*

Anoint the Stomach outwardly with this Oyntment.

Take of *Oyl of Roses, Myrtles, and Quinces washed with Vinegar of Roses, of each two ounces: all the Sanders, red Coral, Coriander seed prepared, and red Roses, of each one dram: grana Kermes and Spodium, of each half a dram: white Wax as much as is sufficient. Make a Liniment, with which anoint the Stomach with your warm hand only twice or thrice in a day, putting in a little Rose Vinegar at the same time.*

Or lay on a Rose Cake sprinkled with Rose Vinegar, or steeped therein, which you must remove before it groweth hot.

Lastly, In the continuance of the Disease a Bath is good twice or thrice used, by which many are brought to their former appetites.

Vinegar, and all sharp things are good with their meat.

A loathing cometh from a cold distemper, when flegmy melancholick humors are gathered into the Stomach, and hinder its office; or being drawn from all other parts of the Body, as in them who using to vomit, draw the impurity of other parts to the Stomach, or from the Brain, Spleen, and Mother, and other parts.

In the Cure hereof, you must first look at the distemper of the parts from whence they come, which must be amended with Remedies laid down in their proper Chapters.

Then you must apply Medicines to the Stomach by Evacuation of the Humor offending, and strengthening the parts.

Evacuation may be made by vomit or stool.

By Vomit, If the Patient be Nauseous, and easie to vomit, with Medicines for that purpose.

But if the Humors be thick, and fastened upon the Tunicles of the Stomach, and the Patient is not used to vomit, they must be purged, especially with Pils; because they stay longest in the Stomach; as *Galen* sheweth cap. 7. lib. 4. *de sanit. tuenda.* Who exceedingly commends Pils of Hiera; which may be given to two scruples or a dram in the morning two hours before meat: and you may make them fresh, thus:

Take of *the best Aloes washed with the Juyce of Wormwood one ounce: Agarick troebiscated two drams: the pouder of Rhubarb sprinkled with white Wine one dram: Nutmeg and Spicknard of each half a dram: Salt of Tartar, Mastich, and Cinnamon, of each one scruple: With Syrup of Wormwood make a Mass of Pills; of a dram whereof make six Pills guilded. Let him take them in the morning if you will purge much; or give half a dram two hours before dinner twice or thrice in a week. They may be quickned with Diagridium, if you will have them stronger.*

If you fear the Liver is too hot, you may mix cool things; as red Roses, Sanders, Diamargariton: and make up the Mass with Compound Syrup of Succory.

Strong Pills are not good, because they wil draw humors from other Parts to the stomach.

If he cannot swallow Pills, you must give him Hiera to drink with a convenient Liquor. Or,

If a Potion shal be unpleasant, make an infusion of Senna, Myrobalans, Rhubarb and Agarick in Worm-

Wormwood Wine, or the stomach Decoction, dissolving in it a little of the Electuary of Citrons solutive, if you wil make a stronger.

If this Disease comes from slow, slimy Flegm, before Purging you must dissolve it with Honey of Roses, and Oxymel, with syrup of Hyssop and the like, with a cutting and clensing Decoction.

Or, This following Apozeme will do both.

Take of *the Roots of common Acorus. Cypress, and Calamus Aromaticus, of each one ounce: dried Citron peels, and Sarsa, of each six drams: Wormwood, Mints, Marjoram, Germander, and Chamæpitis, or Ground-pine, of each one handful: Citron and Annis-seeds, of each two drams: Senna, two ounces: Carthamus-seeds bruised, one ounce: Agarick trochiscated, three drams: Dodder of Thyme, or Epithimum Flowers, Sage, Rosemary, and Lavender, of each one pugil: boyl them to a pint and an half: in which dissolve of the Syrup of Wormwood and candied Citron-peels, of each two ounces: make a cleer Apozeme, and scent it with a little Cinnamon, and pouder of Aromaticum Rosatum for four mornings draughts: in the first and last whereof you may dissolve for the better Purging three drams of the Solutive Electuary of Citrons, with one scruple of the pouder of Rhubarb.*

The use of Turpentine is good, because it clenseth al the Bowels; especially if you make it into Pills with Rhubarb.

It is not good to let blood in this Disease, except the Liver be very hot.

After sufficient Purging, you must come to Strengthning; both Internally, and Externally: Thus,

Take of *Syrup of Wormwood, one ounce: Let him Drink it Fasting many mornings: or Wormwood-wine.*

Take *Conserve of Mints, Citron peels candied, and candied Mutmegs, of each half an ounce: one candied Myrobalane: of Confectio Alkermes, three drams: the inward skins of Hens-maws poudered, two drams: Cinnamon and Aromaticum Rosatum, of each one dram: with syrup of Mints make an Opiate: or candy them with sugar of Roses; use it in the morning, drinking after it a little Wine.*

Salt of Wormwood is good to be put to the aforesaid Medicines, Or, Oyl of Mints Chymical.

Or, Salt of Wormwood with Orange peels, or either of them to half a dram in Wine, or Broth.

This following Syrup is most excellent:

Take of *the syrup of Quinces, and Citron Barks candied, of each two ounces: Cinnamon water, one ounce: Oyl of Sulphur twelve drops: mix them to be taken now and then a spoonful.*

Clarret Water is usual, and it is made thus:

Take of *Cinnamon grosly poudered two ounces: steep them in one pint of Aqua Vitæ in a glass; in another glass put six ounces of sugar with half a pint of Rose water: let these Glasses stand two or three dayes; every day shaking them often; then mix them both together and strain them by filtration; keep the Liquor in a Glass close stopt, and let the Patient take a spoonful or two Fasting.*

In *Paris* the Syrup of Wormwood made by *Pena* is highly esteemed; made thus,

Take *half a pound of candied Citron barks sliced: boyl them in equal parts of the Waters of Succory and Agrimony, make a strong expression and put to it the juyce of Quinces, and Wormwood water, of each half a pint; in which infuse for four dayes four ounces of Schœnanth in a close vessel well glassed and set upon the Embers; dissolve in the straining as much sugar as is needful; then boyl them to a syrup, in which when it is hot dissolve one dram of ash-coloured Amber: keep it in a close Glass.*

Cinnamon Water alone is excellent good in a Cold Stomach, or with other Medicines, as Syrup of Wormwood, Mints, or Coral; to which you may also put Amber-greece.

The Syrup of Cinnamon made with Aqua Vitæ, according to *Quercitanus* Dispensatory is no less powerful.

And Cinnamon Water distilled with Juyce of Quinces.

And also the Spirit of Mastich made thus,

Take *three ounces of Mastich, one ounce of Galangal, half a pint of Spirit of Wine, digest them and distil them.*

The Elixir Proprietatis, described by *Crollius*, is good, if you give twelve or fifteen drops in Wine they wonderfully strengthen the Stomach.

You may make Tablets for the same purpose thus:

Take of *the pulp of Rinds of fresh Oranges, and Aromaticum Rosatum, of each two drams: white Sugar dissolved in Orange flower water four ounces. Make Lozenges.*

Tablets

Tablets of Aromaticum Rosatum, Opiata Solomonis, and old Treacle are good for the same.

A Decoction of Guajacum or Sassaphras taken many dayes together with a little sweating, or without in weak people, is very good in this Disease, being of long continuance.

Also Sulpharous and Nitrous Baths, as our Bellilucanæ being taken in great quantity many dayes, do powerfully cleanse the Stomach and Gutts from al slimy filth.

Take of *Agrimony, Centaury the less, and common Wormwood, of each half an handful: boyl them to half a pint, and ad one ounce of sugar, drink it, either in a cold or hot Cause.*

Hartman exceedingly commends the use of Zeadoary in these words, *The often use of Zedoary doth so strengthen the stomach, as nothing more, therefore we may commend it having tryed it often, and never missed; you must eate it often.*

Costæus Commends hot Wine thus, *Hot Wine drunk ordinarily doth amend the imbecillity of the stomach: It is usually observed that they who have been continually vexed with Wind and Pain from an evil Concoction when they have begun to drink warm drink, have been cured, and lived after a long time more comfortably.*

You must give him Wine in Water, wherein Coriander hath been boyled, for his ordinary Drink.

But observe, That if a hot distemper of the Liver meet with that of a cold stomach, as often it doth, you must give hot Medicines warily, and rather those that are temperate.

Zechius Commends this Bolus following, in these words, *That the stomach may be warmed gently and not dryed, you can use no Medicine inwardly more powerfull.*

Take of *washed Turpentine two drams: Pouder of Mastich half a dram: Aromaticum rosatum half a scruple: make a Bolus to be taken two hours before meat.*

This digestive Pouder is usual to help Concoction,

Take of *Coriander seeds prepared half an ounce: sweet Fennel seed and Annis seed of each two drams: Cinnamon and Cloves of each half a dram: Sugar twice as much as the rest: make a Pouder, of which let him take one spoonful after every meal.*

The Balsom of Peru is good if you give a few drops in Wine one hour before meat.

Or in form of a Pill, one or two drops in sugar for many dayes.

There are some ordinary Medicines for this, Hippocras Wine, a Decoction of Annis, Coriander and Cinnamon mixed with sugar for ordinary drink.

The Dukes Pouder, commonly so called, made of two parts of Sugar and one of Cinnamon, to sprinkle upon al meats.

A Salt to be eaten with meat, made of Coriander, Annis seeds, long Pepper, Galangal, and Nutmegg, mixed with an equal proportion of Common salt.

Some Grains of Pepper whol or beaten, taken fasting.

Acrons stuck with Cloves and Cinnamon, and candied with Sugar, Citron, and Orange peels candied together, Annis seeds, Fennel, Coriander and Cinnamon introsted with Sugar, al these men may use as they please.

Citron Peels are more pleasant than the rest, but because it wil grow so dry that it wil hardly be chewed; we are often constrained to make it up in a Mortar with Rose Water, in the form of an Opiate.

Candied Myrobalans and Nutmegs may be used for the same, and be made up as the former, though they are not so apt to grow hard.

The Essences of Annis, Cinnamon, Citron peels, Nutmegs, and Olives, are excellent to strengthen the stomach, and they must be used as above in the Diseases of the Heart.

Of Meats, They which are Salt do most provoke Appetite, and Sharp things in a smal quantity; and mixed with other things lest they cool the Stomach.

Outwardly apply Liniments, Fomentations, and Emplaisters, thus made:

Take of *Cypress Roots, Galangal, Flower-de-luce, and dried Citron peels, of each two ounces: Mints, Hyssop, Sage, Rosemary, and Marjoram, of each one handful: Annis seeds, Bayberries, Nutmegs, Cloves, and Cinnamon, of each three drams: the flowers of Stœchas, Schœnanth, and Rosemary, of each one pugil; slice those that must be sliced; and bruise those that must be bruised, according to art, and put them into two Bags with holes pricked through, and steep them in strong Wine, and lay them warm to the stomach one after another.*

Take of *the Oyl of Wormwood, Mints, and Spike, of each half an ounce: Oyl of Nutmegs, two drams: Wood of Aloes, Mace, and Cinnamon, of each one scruple; with a little Wax make a Liniment, which will be better if you ad six drops of Oyl of Cloves, and of Musk and Ambergreece, of each eight grains.*

Also there is a Liniment of Oyl of Nutmegs, Balsom of Peru, or of Oyl of Wormwood, Mastich, and Balsom of Peru.

Take of *the Emplaister of Mastich one ounce*: *Aromaticum Rosatum one dram*: *Oyl of Nutmegs as much as is fit to make a Plaister like a Buckler for the Stomach.*

Crato doth wonderfully commend this following Plaister:

Take of *Labdanum two ounces*: *Wax four ounces*: *Oyl of Nutmegs three drams. Make an Emplaister.*

Galen adviseth 7. meth. not to keep these Plaisters long upon the part, for at length they will dissolve the hear.

Many Practitioners do not only apply these Remedies before to the Cartilage called *Xiphoides*, like a sword; but also behind upon the thirteenth Vertebra, because the proper orifice of the Stomach inclineth backward; but the thickness of the Vertebra is such, and of the Muscles under them, that the strength of the Medicine cannot pierce through to the Stomach.

Take of *Galangal, and Calamus Aromaticus, of each three drams*: *Mastich, and Cloves, of each two drams*: *one Nutmeg*: *dried Citron peels half an ounce*: *Annis seeds one dram and an half. Make a bag of these being bruised and put into red silk pricked through, and into musked Cotton, to be worn alwaies upon the Stomach.*

The Skin of a Vultur dressed and worn upon the Stomach, is commended for the same: in want of which a Hairs Skin, or a piece of Scarlet may be used.

Chap. 2. *Of Dogs Appetite, called* Fames canina.

HAving in the former Chapter spoken of Appetite diminished and abolished, now we shall speak of it depraved. And this is done two waies: When it either offendeth in quantity or quality. It offends in quantity when nourishment is required in a greater quantity than Nature would; and this is called *Boulimia*, or Dogs Appetite: It offends in quality when things are required which are evil, or are not food, and this is called *Pica* or *Citta*. Of the first we shall speak in this Chapter, of the last in the Chapter following.

The word *Boulimia* comes *apo tou bou kai limou*, because the Particle *Bou* put to other words, encrease the signification, as if it were compared to the greatness of an Ox. It is also called *Phagedaina*, which word is given to Ulcers which eat the flesh and enlarge, and therefore called *Ulcera Phagedaina*, that is, spreading Ulcers. Now it is called *Fames Canina*, or Dogs Appetite, because they who have it are hungry as Dogs.

But you may observe that these two words, *Boulimia*, and *Fames Canina*, are sometimes confounded, and used for the same thing: and sometimes distinguished, so that it is called *Fames Canina*, when after much feeding they vomit like Dogs. But some purge rather than vomit, when Nature throweth down that which it cannot concoct. In *Boulimia*, vomit doth not follow, but sometimes Lipothymia. There are some who feed unsatiably, and yet vomit not, nor purge, but concoct all, and if they have not presently more, are sick. As *Sennertus* reports of a Scholler, who was black colored, who eat not only in the day, but night, and digested it without vomiting; he could not be satisfied with delicate meats, but required grots, and therefore would eat no Bakers Bread, but such as the Country people made, and would eat as many raw Parsnips in a Summer morning as could be bought for six pence, without damage.

Hence it appears that this disease is a Symptome of an action depraved, in respect of quantity, which action being encreased, is called Dog-like, or an Appetite beyond Natural Measure. The part affected is chiefly the mouth of the Stomach. The cause containing, is sence of sucking, and vehement pulling, which stirs up the Appetite.

Galen 2. de tymp. caus. cap. 7. reduceth the immediate causes of this Disease to two Heads, in these words: *Evil Appetites exceeding in quantity, which are called by some Caninæ, are then, when either some evil sharp Juyce biteth the Stomach, or when the whol Body immoderately concocting, wants nourishment; for evil Juyce which is cold, biteth like the Natural sucking, and produceth appetite by the resemblance of Nature.* The immediate cause of a preternatural Appetite, according to *Galen*, is first a vicious humor, and cold, sticking to the Stomach: Secondly, want of Food by over much concoction.

Evil Humors sticking to the Stomach, cause immoderate Appetite, because they by their too much coldness, sharpness, and sowrness, do constringe, wrinkle, and pull the mouth of the Stomach, and so make a sence of feeling like a natural sucking, and beget a false Appetite.

This Humor is either sowr flegm staying long in the Stomach, or many times Melancholly sent from the Spleen into the Stomach, which in a natural state, and a moderate quantity and quality begets a moderate and natural Appetite; but if it be preternatural and exceed, it makes the Appetite too great.

The

The want of Food, by reason whereof the Veins do continually suck from the Stomach, either it comes from too great Evacuation by bleeding, purging, vomiting, sweating, and the like, or from too great a Consumption of the alimentary substance, by reason of the immoderate heat of the parts, or the thinness of the humors, and body, and loosness of the pores, watchings, baths, immoderate exercise, much venery, all which do dissolve the substance, making humidity; and by these emptiness being caused, and want of food, the meat is carried from the Stomach sooner than it ought.

Also this *Fames Canina*, or Dogs Appetite, may come from Worms which devour the Chylus; as *Trallianus* reports, *lib. 7. cap. 4.* of a Woman in this Disease, which voided a worm twelve Cubits long by the use of Hiera, and was cured.

The Hermetical Physitians do lay down another cause of this wonderful Appetite, namely, a certain dissolving Spirit begot in the Body, which by an inherent property doth so readily consume whatsoever meat is taken, so that it doth not allow Nature a lawful and necessary bound of nourishment. This they call a hungery devouring, salt, sharp, vitriol Spirit. For say they, as from divers Salts, Vitriol, Niter, common Salt, and Salt Armoniack, with the like, Aqua fortis is made by Chymistry, which will dissolve the hardest Stones, Mettals, into Liquor in a short time; so that Gold which will not be dissolved in a month by a strong fire, in a quarter of an hour will be dissolved in *Aqua regia*, and be turned into a Liquor of the same color.

This Doctrine is diligently to be examined; for as the digestion of the Stomach in its Natural condition hath something to be admired by the curious Searchers into Nature; so the same being made preternatural hath something to be wondered at.

This is wonderful in the Natural digestion of the Belly, that the hardest meats are digested therein, and in three or four hours space are turned into a Chylous Liquor, so thin that it may be strained through the narrowest branches of the Venæ lacteæ; and that Dogs do turn the hardest bones into the same Liquor, is not to be attributed to a stronger concocting heat, because meat in a pot, although the fire be never so hot, cannot in twenty four hours, or many daies be converted into the same. The Galenists hold that this comes from the faculty of the Stomach, which faculty works not without an Instrument, because if there is an *Idiosyncrasia*, or a certain proportion of the first qualities, as is commonly reported, its chief action must be from heat; for cold, moisture, or driness, do nothing to that great dissolving of food, and heat, as it is said, hath not that power. Therefore the Idiosyncrasia is somwhat more unknown, and not to be expressed. Let us therefore search after it in the Macrocosm or greater World, of which there is a great Analogy or resemblance in the little World. And therefore the more witty Hermets say that there is a certain Spirit or acide Liquor sent from the Spleen into the Stomach, which dissolveth the solid nourishment, and shortly converteth it into Chylous Liquor, and that is the principal Instrument of digestion. And some conjecture that this may be made, because Birds who digest the hardest nourishment have a Spleen round about their Maw; for the flesh which is found about their Stomachs is like the substance of a Spleen; from whence there is a more noble use of the Spleen than what is allowed by the Ancients, who said that it was only for the purging of the grosser sort of blood; because according to this opinion it serveth for concoction of meat. Therefore if the Spirit or sharp Liquor which comes from the Spleen when it is in its Natural condition, makes a natural and moderate digestion; the same spirit being altered from its natural condition and defiled, or made sharper or more dissolving, it will sooner dissolve solid nourishment; and when they are so dissolved and thrown from the Stomach, it will make a new immoderate Appetite. We do not conclude that this new Doctrine is certain and undoubted, but we only shew it that solid wits may examine it. And we will talk of it again when we speak of the causes of the hinderance of Concoction.

The signs by which this disease is known are manifest; for it will appear to them that eat, and to the standers by, that the Appetite is depraved which causeth such devouring of meat, which afterwards is thrown up by vomit, and then it is Fames Canina, and if Vomits follow not, then there is fainting, with coldness of the extream parts, and this is called *Boulimia*.

The signs of the Causes may be found by the Antecedents, Concomitants, and Consequents. These are the signs of a cold distemper, and of sharp humors in the Stomach, belching, and sharp vomiting, crude dejections, or stools, want of thirst, and external Causes of refrigeration afore going. If it come from defect of Nourishment, the Patient is lean, and there are causes present or fore-going of the dissolving of the Humidity; and lastly, the signs of Worms shall be spoken of in their proper Chapter.

The Prognostick of this Disease, is thus: If it come only from External Causes it is not dangerous if they be presently taken away: And if it come of Worms there is little danger, for when they are taken away the Disease is cured.

But it is very dangerous if it follow great Evacuations and meltings of the body; especially if after meat when the belly is yet ful there come a fainting; for when that which should most help, becomes unprofitable, it signifies a great distemper of the Stomach.

So a Dog Appetite continuing with Vomiting and great Purging is dangerous, for it useth to end in an evil habit, dropsie, lethargy, consumption, and the like.

As for the Cure, because Fames Canina for the most part takes its Original from Melancholick and Flegmatick Humors fastened in the Mouth of the Stomach; therefore Medicines must principally be directed to them; such as do empty and change the Humors and also strengthen the part affected.

You must Evacuate by Vomit or Stool with Medicines Prescribed in the Cure of Want of Appetite from a Cold Cause; for although these Diseases are contrary, yet come they from the same Humors, different in the degrees of Coldness, and second Qualities, and such as diversly affect the Stomach.

Also the Remedies there Prescribed to heat the Stomach and strengthen it both internally and externally are excellent, because they not only correct the Cold Distemper, but dry and cause thirst; and thirst coming, hunger is diminished.

Moreover, Wine plentifully taken asswageth hunger, according to *Hippocrates*, Aph. 21. Sect. 2 And especially the Spirit of Wine, or Aqua Vitæ.

They do properly stay Hunger which do much moisten the Stomach, relax it, and asswage the sharpness of humors. As al Fat things and Oyls, as *Villanovanus* reports, That one thus diseated did eat a hot Loaf dipp'd in Oyl; and a Woman drank the melted Sewet of an Ox with as much warm Oyl at Twice, and both did so Disdain Meat, That they eat nothing in Five Dayes, and were Cured.

Narcotick Medicines by Dulling the too exquisite sense of the Stomach, do lessen this Disease; and new Treacle is most usual for it because besides its stupifying quality it doth correct the malignity of the Humors which is some cause thereof.

But because these are to be used but seldom and not without urgent necessity, sometimes you may use old Treacle, for the reason aforesaid, as also to strengthen.

Five or Six Grains of Amber-greece taken in a rear Eg doth not only strengthen the Stomach, but by a special quality cureth this Disease.

Chap. 3. *Of Pica and Malacia.*

Pica and *Malacia*, are a depraved Appetite; by which, evil, unprofitable, and hurtful things are desired.

It is called *Kitta* or Pica from the bird called a Pye, either in regard of the variety of colours, or because it eateth lumps of Earth, for Women in this Disease use to eat Earth and Chalk, and the like: It is called Malacia by *Pliny*, for these Women through Weakness of mind, and tenderness, want that right and natural Appetite.

This Disease comes of evil corrupt Humors, which are gathered into the Stomach by reason of its hurt Concoction, or else sent from other parts.

Flegmatick and Melancholick People are most dispos'd for the production of these Humors, especially Women, to whom this Disease seems proper and peculiar; although sometimes Boyes and Men, though seldom have the same: Eating of evil Diet doth cause this, want of any natural Evacuation, especially of the Terms, Sadness, Distemper of the Liver and Spleen, Obstructions and Weakness, divers diseases of the Womb, and the like.

These Vitious Humors according to the divers degrees of distempers and other dispositions have a diverse nature, from whence come divers appetites of evil things: For since som Humors are crude and inconcocted, others burnt, and adust; some require sowr things, sharp, bitter, and very cold, so that they are delighted with the continual use of unripe Fruits, Vinegar, Juyce of Lemons, Pomegranats, and Orenges, cold Water, Snow, Ice, and the like. Others desire Earthy, Dry, and Burnt things, as Gloves, Cinnamon, Nutmegs, and other Spices, Salt-Ashes, Chalk, and the like.

This Disease is Common to Women in the Chlorosis, or Green-sickness; to Women great with Child; and such as have their Terms stopped; which staying in the Body corrupt, and ascending do infect the Stomach, from whence its Actions are depraved, and chiefly the Appetite is taken from its natural Condition.

Boyes are sometimes troubled herewith, and especially if they are born of a Woman that hath the Chlorosis: Nor are men altogether free from it, although it happen seldom; and they are especially troubled therewith who are Melancholick, have Obstructions, or want their usual Flux of the Hæmorrhoids.

It is Disputed much among Authors, Whether a Depraved Appetite require those Things which are like to the Preternatural State or Distemper of the Stomach, or those that are Contrary? *Galen* railed

raiſed the firſt Diſpute, *cap.*3. *artis parvæ*, where he teacheth, *That the Stomach being diſtempered, doth deſire Contraries, and in its natural ſtate and temper it deſireth things like to its ſelf.* Which Doctrine *Avicen* following, *Fen.*1 3.*lib.*3.*tract.*2.*cap.*10. ſpeaks thus, *When there is an evil Humor gathered in the ſtomach, different in quality from its own nature, then it doth require things contrary to it; therefore ſome deſire Clay, Coals, Earth, Loam, Chalk and the like, by reaſon of the quality that is in them, to dry up and cut that which is contrary to the quality of the Humors:* But they who are in health deſire judicially rather things like, than contraries; for ſince fancy is much imployed in ſtirring up of Appetite, and is much ſtirred up from the diſpoſition of the body, it is probable that the humor predominating ſhould move the fancy to deſire things like unto it; For as chollerick men both in time of health and ſickneſs, do dream of Fire and Anger: and Flegmatick men of Snow, Ice, and Waters: the Apprehenſion of which things proceeds from the Humors predominating in the body: So when the ſeat of Appetite the mouth of the Stomach is affected by foul humors there long continuing, they do imprint their ſimilitudes in the Fancy which ſtirs up the Appetite to deſire things like it though never ſo contrary to reaſon, which is now overcome by the force of imagination.

Moreover, If things contrary to the diſeaſe or its cauſe were deſired by the continual uſe thereof, the diſeaſe would be cured; daily experience confirmeth this.

By which we are taught, That Virgins in the Green-ſickneſs, and Women with Child, do for the moſt part deſire thoſe things which are agreeable to their preſent Diſtemper and evil Habit, ſo that they who have Salt and Aduſt Humors long for Coals, Salt, Spices, and the like: but they who have Melancholly or Salt Flegm predominating, deſire Vinegar, green Fruits, and the like.

As for the Authority of *Galen*, ſome wholly reject it; ſaying, That if it were true, That Diſeaſed Diſpoſitions ſhould deſire their Contraries, al ſick men, of evil Habit, would deſire Meat of good nouriſhment; which is not true, for we often ſee that ſick men deſire evil meats, and refuſe good: and we ſee that bodies inflamed, whether they are in a preternatural ſtate, as in Feavers; or in a natural, as by violent exerciſe, require cooling.

Some deſire to Reconcile this Opinion of *Galens*, ſaying, That in this Pica the diſtemper upon the Stomach is habitual and connatural, and therefore doth cauſe an Appetite like to a natural, which is for things like it; which may be thus explained, When we ſay that every natural temper doth require the like, and every preternatural the contrary; the laſt is to be underſtood of diſtempers which come without overflowing moiſture; for they which are with much moiſture when it is ſucked up by the tunicles of the Stomach, do rather deſire things like the moiſture with which they are wet, becauſe the Humor which now pierceth al the Tunicles although it be noxious, yet it is not troubleſome: On the contrary, when the humor only poſſeſſeth part only of the Stomach, or is only in the bottom, the Stomach deſires the contrary to that which is offenſive unto it; but if it poſſeſs the whol Stomach, and be ſoaked into its Tunicles, then the natural Faculty is deſtroyed and ſo changed, that it doth not deſire any thing but what is like to the Humor ſo ſoaked in, and ſo it may be rightly ſaid that the humors was become as it were connatural.

Platerus and *Sennertus* do eaſily free themſelves from theſe difficulties, by flying to an occult quality, and they take occaſion from hence, if the Patients ſo affected ſhould require things like to the cauſe of the diſeaſe, then by the plentiful uſe of them the diſeaſe would be exceedingly encreaſed, but we ſee that they wil devour Chalk, Clay, Coals, and the like traſh, and receive not the leaſt hurt thereby, by which men that are ſound would be almoſt killed.

Moreover, They ſay that Women with Child wil often void ſalt and ſowr humors, and yet not require ſalt or ſowr things, but the contrary. And laſtly they affirm conſtantly that there is no agreement of Coals, Chalk, raw Fleſh, and the like with the Humors. And therefore they ſay that they muſt not reſt in manifeſt qualities, and that the Cauſe of this Symptome and wonderful Appetite cannot be taken from them, but they muſt fly to ſome occult quality not to be explained.

Yet *Sennertus* confeſſeth that it is probable that this Appetite depraved, ſhould proceed rather from a like than a contrary quality: but what that quality is cannot be explained, becauſe the things which are deſired have no agreement with the humors either ſweet, ſalt, or ſowr in manifeſt qualities.

We may Reconcile al theſe thus:

The deſire of Traſh is ſtirred up by humors of the like nature and temper, but theſe humors beſides their native temper have a certain peculiar fault from corruption, which ſince it cannot be wel explained, it may be called an Occult Quality.

The Knowledg of this Diſeaſe is eaſie, for the Patient can relate it; it is manifeſt that the part affected is the mouth of the Stomach, for that is the Seat of Appetite. The Cauſe alſo may be found out by conjecture from the ſuppoſed deſire of things like. For if they deſire Coals, Salt, and the like,

like, we may gather that the disease depends upon Salt and burnt humors, which will more clearly appear, if any of those Humors be cast forth by vomit or stool, if there be sharp belchings, or salt, a tast bitter, sowr, or salt.

As to the Prognostick; This Disease is Chronical, of continuance, but not very dangerous, if the Body by Nature or Art may be brought to its old condition, which is not very difficult. For in time the Humor offending may be sent forth by vomiting naturally, or by Medicines: and the Terms or Hæmorrhoids stopt, which caused this disease first, may in time be discharged; which if neglected, and Nature sinks under the burden, great diseases follow: For when the first Concoction is hurt, it is necessary that the second and third be corrupted, from whence come great Obstructions, evil habits, and dropsies. Or if the Humor be carried in greater plenty to the Stomach, and partake of greater Malignity, sometimes it produceth violent Cardialgiaes, or Heart diseases; from whence fainting, swooning, and sometimes death doth follow.

If Women in this disease begin to abstain from trash, and to eat good meat with less disdain, it is a most certain sign of health at hand.

Women with Child use to be freed of this disease about the fourth month, because then the Child is grown greater, and so consumeth more of the humors, and the mother hath sent it forth by often vomitings; but if it last longer, 'tis dangerous; for it signifies that the evil disposition of the Stomach hath taken deep root, which will hardly be pluckt up.

It is better for people in this disease to desire sharp and sowr things; it is worse if they desire things contrary to Nature, as *Avicen* teacheth, *fen.* 13. *lib.* 2. *tract.* 2. *cap.* 20. for it signifies a greater distance from the Natural state, which is harder to be cured.

The Cure of this disease is divers, according to the variety of the Bodies affected.

In Women with Child, few Medicines are to be used, by reason of the unfitness of the subject, and danger of Miscarriage, but you may give them gentle things, and such as were prescribed in the Cure of want of Appetite to cleanse and strengthen the Stomach. Nor must you omit blood-letting, which done sparingly and often, is of great consequence.

But in Virgins of the *Clorosis*, or green sickness, this disease is cured with the same Remedies, which shall be prescribed for the Cure of Clorosis in its proper place.

But the *Pica* which is in men, is very seldom, because it comes from obstructions of the Liver and Spleen, you may use those things which shall be prescribed for the Cure of them.

Chap. 4. *Of the Thirsty Disease, called* Sitis Morbosa.

THe Appetite of Drink, or Thirst, may be three waies hurt, as that of Meat, by diminishing, abolishing, and depraving; it is diminished many times by a sweet insipid humor, which moisteneth the Tunicle of the Stomach, or from too much moisture in the whol Body, from whence it is that the parts do not draw the drink from the Stomach. It is abolished by acute Diseases through interception of the sence, when the mind is sick, or because the Natural Faculty is decayed by the extinction of the Natural heat; from whence *Hipp.* saith, *It is evil not to thirst, when a cause of thirst is taken*: and since thirst diminished doth depend upon the same cause, from which want of Appetite is produced, and thirst abolished, is only in acute Diseases, we shall not speak here of them particularly. But we will only speak of thirst depraved, as being most usual: and this is to be divided two waies, and Hunger. The one requiring divers kinds of Drinks; the other great quantities, and often. That which desireth filthy drink is to be referred to Pica, as when they desire Vinegar, Lemmons, and salt Water. It remains that we speak of thirst encreased, which is an usual Symptome when the Appetite offends in the quantity of Liquor, and much drink is desired.

The immediate Cause is a want of moist nourishment, and driness of the Stomach, and of other parts which make the Stomach sensible of their wants.

This driness and want of moisture, useth to come from all such things which can consume the dewy moisture of the Stomach and the whol Body, and dry it up, and they are hot and dry. The dry do principally suck up the Humor, and the hot things secondarily.

Also this disease is either by Propriety, or by Sympathy. It is by Propriety when the innate moisture of the Stomach is altered and drawn forth by an unequal distemper, dry or hot, or both; sometimes by a simple distemper, but often by that distemper which is joyned with matter; as a salt, sharp, or filthy humor fixed in the mouth of the Stomach, or contained in its Cavity. But that which is by Sympathy, comes by consent from the whol Body, or some part whose Veins having lost their moisture, do suck from the Stomach; as it is in Feavers, Inflamations of the Liver, Lungs, and other parts, as also in hot and dry distempers, especially of the Reins, as you may see in a Diabetes, or involuntary

voluntary piſſing, which is called by the name of *Dipſacus*, by reaſon of the great thirſt which accompanieth it.

The outward Cauſes are all ſuch as extraordinarily heat or dry, as very hot and dry Air, long continuance in the Sun, or at the fire, uſe of Salt meats, ſharp, and ſpiced, much uſe of old rich Wine, great watchings, too much evacuation, eſpecially by purging.

The Hermetical Phyſitians ſay, that immoderate preternatural thirſt comes from ſome thirſty ſpirits which are bred of Sulphureous excrements, which will not be ſatisfied with ſimple cooling and moiſtening, but with other Spirits like unto themſelves; as we ſee in Feavers that a ſtrong thirſt is little allayed with much Water, which with ſharp Spirits of Vitriol, Sulphur, Salt, and the like, wil be ſatisfied with a leſs quantity of Water.

The knowledg is eaſie, for the Patients will complain. But the Cauſes are known by their proper ſigns; as a hot and dry diſtemper cleaving to the Stomach and other parts; as alſo ſharp, ſalt, and bitter humors, ſome whereof are ſometimes caſt forth, or they have their taſts in their mouths, if the humors are in the Stomach; but if thirſt come by conſent from other parts, the ſigns of thoſe Diſeaſes will be manifeſt.

As to the Prognoſtick: That thirſt which comes from Primary Cauſes is ſafeſt, for that is quenched preſently with drink. But that which comes from internal Cauſes, is more or leſs dangerous, according to their differences.

That thirſt which comes with Feavers, and other eaſie cures, endeth with them. But if it come from great and dangerous Diſeaſes, it is very dangerous; as in a Dropſie in which thirſt is not ſlacked, but rather encreaſed with drink.

The Cure of this Diſeaſe is often in Feavers, and Inflamations of ſome parts; which is deſcribed ſufficiently in our Method of the Cure of Feavers, Sect. 2. Cap. 2.

But if Thirſt be contracted by immoderate Evacuations cauſing a dry diſtemper of the Stomach, and other Cauſes, the Cure is by ſuppreſſing thoſe Evacuations, and by reſtoring the empty parts with moiſt Medicines.

Therefore firſt, having ordered a reſtoring Diet, as in a Hectick Feaver, Conſumption, and Maraſmus. Two Remedies preſcribed by *Galen* are the beſt, 7. meth. namely, Milk and Baths. Although *Hippocrates*, Aph. 64. Sect. 5. forbids milk to thirſty people, that is to be underſtood of thoſe who thirſt from abundance of Choller, and putrid Humors, in whom Milk is eaſily putrified; not of thoſe who thirſt from drineſs and Conſumption. We ſhewed the uſe of Milk in the Cure of a Conſumption.

Let the Bath be made of the Decoction of Althæa Roots, and Lilly Roots, with Mallows, and Violet Leaves, and of a Decoction of the Heads, Feet, and Guts of Sheep, or melt freſh Butter, or Oyl in warm Water, to be changed often.

Going out of the Bath, let the Loyns, Back, and Stomach be anointed with Oyl of Violets, the Marrow of a Veal Bone, and the like, with which let as much Breaſt, or Goats Milk be mingled, as they will receive.

Let the Patient in the mean while uſe reſtoring Syrups and Lozenges, and other Remedies which ſhall be laid down in the Cure of an Hectick Feaver.

This following Opiate is excellent:

Take of *Eryngus Roots candied, and Conſerve of Bugloſs, of each two ounces: Conſerve of Violets and Borrage flowers, of each one ounce: Confectio Alkermes half an ounce: Diapenedion newly prepared without the Species, two drams: with Syrup of ſweet Apples make an Opiate, of which let him take the quantity of a Cheſnut at the time of thirſt, drinking after it a little Borrage Water.*

Chap. 5. *Of the Hurt Concoction of the Stomach.*

THe Concoction of the Stomach called *Chyloſis*, as of all other parts, is hurt three waies, either by diminiſhing, aboliſhing, or depraving. This Concoction diminiſhed is called *Bradupepſia*; the aboliſhed *Apepſia*; the depraved is called *Dyſpepſia*; all which differences are comprehended in this one word *Crudity*. Now this Crudity is two-fold: either nidorous, ſtinking, and acidous, or ſharp. The nidorous Crudity is when the nouriſhment is turned into a ſtinking, burnt matter, as when the ſtink of Eggs, or rotten fiſh, or fryed Oyl, is ſmelt by belching, which happens often in hot Chollerick Bodies. But a ſharp ſowr Crudity is when meat turns ſowr, and the belchings are ſowr, and this comes from a cold diſtemper. To theſe you may add a third difference of Crudities, when by reaſon of weak heat the matter is imperfectly concocted, and is turned into flegm without ſowrneſs.

The

The Causes that hinder Concoction in the Stomach may be brought into three Heads, namely, a fault in the Organ, Object, and things External and Internal.

The fault in the Organ comprehendeth all diseases in the Stomach, whether they be Similar, or Organical, or Common, all which may overthrow its actions, but distemper is commonly the cause of hurt Concoction; for since Concoction is made by a moderate heat according to Nature, if at any time it want its due moderation, the Concoction is hurt. So a cold distemper of the Stomach which diminisheth the Heat, if it be gentle it only weakeneth the Concoction, and make a Bralypepsia, or slow Concoction. If the cold distemper be greater, it aboliseth Concoction, and makes Apepsia. But a hot distemper doth deprave Concoction, and make a Dyspepsia, which is a difficult Concoction. These distempers are sometimes simple, and in such who have Naturally a weak Stomach, and smal Natural heat; or have a sharp and burning heat, but they are commonly with matter: hence in Hypochondriack Melancholly, much flegm and fermentation of a black Humor use to cause Crudities, Winds, Swellings, Rumblings, and sowr Belchings.

The fault of the Object, that is, the nourishment which is the proper Object of the Stomach, comes many waies, when it offendeth in Substance, Quantity, Quality, time, or Order of being taken.

Nourishment is vitious in respect of its substance, when it is too hard and difficult to be concocted, as Deers flesh, Hairs flesh, especially if old, and made hard with Salt or Smoak, Bread full of Bran, Mushroms, Roots, Pulse, and the like, which are called Dyspepta.

Meats offend in Quantity when too much is taken at once, and therefore cannot be overcome by the heat, hence come Crudities, which are most usual among them who do surfet themselves. If there be less eaten than is required, it may seem to be crude, because too little meat will be burnt and dryed in a Chollerick Stomach.

Meats offend in Quality which are too cold and moist, and windy, or they which are too hot, whereby the thinner part of the Chyle is burnt, and turned into nidorous vapors.

To this may be reduced the Art of Cookery, and Sawce-making; for the divers waies of roasting, boyling, and making of Sawce, do alter the disposition of Meat, by which means they become more easie or hard of Concoction.

The time and order of eating being prepostercus, may also spoil the Concoction, as if any one should omit his usual time of eating, and fall to at midnight, or a little before he goes to sleep, fill his Stomach; or if after taking of solid and astringing things, as Cheese, Pears, Quinces, and the like, they take liquid things which do soon corrupt.

Also external things may spoil the Concoction, if they be immoderate: so too cold Air by dulling the natural heat, if it be weak or too hot, by dissipating the heat may hinder Concoction; as also immoderate exercise, especially after meat, by drawing the natural heat forth from the Stomach to the external parts, and so dispersing it extraordinarily; as also by throwing the Chylus yet imperfect into the Guts. The stoppage of the Belly and other excrements, or an immoderate flux, great watchings, sleep in the day time, great passions of the mind, especially sadness, and deep study presently after meat, and the like, do not a little hinder the action of the Stomach.

Besides the Causes mentioned, the Hermeticks of late time mention one less usual, and not noted by the Ancients, which also is not plainly demonstrated by them; but it is confirmed by some conjectures, not to be contemned; of which we made mention in the explaining of the Causes of Fames Canina. First therfore they affirm that the Natural Concoction of the Stomach is not made by heat only; but that quick melting of solid meats by which it is converted into Chylus, is from another cause; since Experience teacheth that meat boyling in a pot at a strong fire many daies, will never be dissolved: and bones in a Dogs Stomach are quickly dissolved, and turned into Chylous Liquor; and in the bellies of Fishes which have no actual heat, all that is brought in is dissolved and concocted the same way. Therefore they lay down the principal Cause of this dissolving to be a certain Spirit or sharp Liquor sent from the Spleen into the Stomach, which hath great power to dissolve. And they take this opinion from *Galen*, by whom it is confirmed that a Melancholick Humor sent from the Spleen into the Stomach, doth cause appetite, and that either by astringing or wrinkling the inner Tunicle of the Stomach, or pulling of it by its sharpness, which may be opposed; for if it do it by astriction, then all astringent things would do the same; and if by pulling, sharp things rather than sowr would provoke Appetite. Therefore they think it more probable, that that humor should stir up Appetite by accident, by causing want of nourishment, by dissolving of that which comes in. And therefore they allow a more noble use of the Spleen than ever the Ancients thought of, namely, to be a chief instrument to serve the Stomach in Concoction: This may be conjectured from Birds which dissolve the hardest feeds, and have a Spleen round about their Stomach or Maw, that it may more powerfully inspire that dissolving Spirit, or communicate unto it sowr Liquor. And *Helmont* from his own experience saith, that that sowr Spirit is very strong in Birds; for he relates that when he was a Boy and kept a Sparrow, he gave it his Tongue, which the Sparrow catching with his Bill desired to swal-

ſwallow; and that touching the Throat of the Sparrow with the tip of his Tongue, he found it exceeding ſharp. The diſſolving Spirit inherent in the Gizzards of Birds is proved from Phyſical Practice, in which the Gizzards of Hens for to help Concoction are uſually preſcribed in digeſtive pouders, and it is credible that they produce that effect by helping the diſſolution of the meat, and the ſame are preſcribed in the Stone, and they do much diſſolve them; and that is more manifeſtly declared in that from the Gizzards of Birds, there is a ſalt taken which is excellent to diſſolve the Stone: out of which ſalt, being in great plenty in their gizzards, Nature being wiſe and provident knows how to draw a ſpirit in a living Creature, by help whereof with the natural heat ſhe may diſſolve ſolid nouriſhment: and it is ordinarily ſeen, that there is a ſpirit made of diſſolving ſalt, as of Vitriol, Niter, Armoniack, and common ſalt, which is more powerful to diſſolve.

Therefore the Spirit or ſharp Liquor which is ſent from the Spleen into the Stomach while it is in its natural ſtate makes a laudable Concoction, but if it be changed it overthrows the actions of the Stomach as aforeſaid, from theſe Poſitions, That a Dog Appetite was ſtirred up, when that ſpirit or acid Liquor, is too active and powerful to diſſolve: So on the other ſide, if the diſſolving power be too weak, or be defective, there followeth a diminiſhed or aboliſhed concoction. Hence *Helmont* ſaith, That the 1. Aph. of *Hipp.* Sect. 6. which is this: In long raging of the Guts, if ſowr belchings ariſe, which were not formerly, it is a good ſign; is thus to be interpreted, becauſe that ſowr belching ſignifieth that that fermentation which was loſt by the diſeaſe begins to return.

Let us hold up this new Doctrine by our own Experiment, for in the yeer paſt, 1648. we had a great Flegmatick and Melancholick Flux for four months, and were brought thereby to extream leanneſs, by reaſon al our nouriſhment turned into a Flegmatick and ſlimy ſubſtance, from the debility of the Stomach which could not wel concoct the ſame, after many Medicines uſed al along that time, the chief part wherof profited little or nothing, at length by the often uſe of very ſharp Vinegar in a few dayes we were perfectly cured of that violent diſeaſe; by the force of which Vinegar we may conjecture that the natural ſowrneſs which was almoſt loſt was much reſtored: We uſed this Vinegar at our meat with hard Egs, which being cut in pieces we dipped therein, and for ſome dayes we continued the uſe thereof in all our meates: And we manifeſtly perceived that if the Vinegar was not very ſharp it did our Stomach little good.

The Knowledg or Diagnoſis of this Diſeaſe, according to the differences of hurt Concoction is divers: And firſt, Apepſia and Bradypepſia are known by the ſame ſigns only differing in degrees: and theſe ſigns are ſowr belchings, vomiting or purging forth of food either not, or but half concocted, ſome cauſes of refrigeration went before, there is a weight, extention and inflamation in the ſtomach, inconvenience by taking cold things; thin urine, watriſh, and pale; ſomtimes thick and red from that impure and filthy juyce which by reaſon of the imperfection of the firſt concoction could not be ſeparated from the Chylus, but being ſent to the Reins with the ſerous humor, makes the urin foul, ſuch as uſeth to be voided by Melancholick and Scorbutick perſons.

See the Explication of this Urine more at large in *Sennertus*, lib. 3. pract. med. part. 8. ſect. 2 cap. 7. but theſe ſhew Concoction depraved, or Dyſpepſia, Nidorous ſtinking belchings, the like taſte or ſtink in the mouth, ſenſe of thirſt and heat, inconvenience by hot things.

If the Stomach is affected principally, there wil be the proper ſigns of its Diſeaſe; but if by conſent, this ſympathy is to be found out from the proper ſigns of the part affected: but if the ſymptome depend upon the fault of external cauſes, or of the object, it wil appear by the relation of the Patient and thoſe that ſtand by, from the preſent or foregoing Conſtitution of the ſame.

The Prognoſtick is thus made; the fault of Concoction which comes from external cauſes is eaſily helped, by taking away thoſe cauſes, and by ordering a good diet.

Concoction hurt is more eaſily cured when it comes of humors which are brought from other parts into the ſtomach, then when it is only from the ſtomach: for as if thoſe humors are purged before they faſten any diſeaſe in the ſtomach, concoction is reſtored.

The Aboliſhed Concoction of the Stomach is worſt of al, becauſe the whol nouriſhment of the body is fruſtrated, from whence comes moſt deadly diſeaſes, as Lientery, Dropſie, Atrophy, and the like.

The Concoction Diminiſhed brings its inconveniencies, as Chollick, Cachexy, or evil Habit, and ſomtimes divers ſorts of Dropſies.

The Concoction Depraved, is the Cauſe of many Evils; of Obſtructions, Scabs, Feavers, and the like.

The Cure is wrought by taking away Cauſes external, antecedent, and conjunct, which do cauſe, encreaſe, and preſerve this diſeaſe.

And firſt obſerve, if the humors be brought from other parts into the ſtomach, and in this caſe they muſt firſt be Evacuated and Revelled, the diſeaſe of the part ſending thoſe humors is to be amended, and the ſtomach ſtrengthned, the cures of the diſeaſes of other parts muſt be taken from their proper Chapters: But the ſtrengthening of the ſtomach may be taken from the cure of the Want of Appetite.

But the Hurt which comes to the Concoction from the proper fault of the stomach, that chiefly takes its beginning from cold or hot humors; and therfore requires the same cure, which was propounded for Want of Appetite coming of the same Causes, which we will not repeat.

Lastly, If the proper Cause of the Hermeticks afore-mentioned be worth observing; you must look to it; first correcting the Evil state of the Liver, and then restoring the Spirits dissolving, with some acid substance; of which kind is Spirit of Sulphur, Vitriol, Salt, Juyce of Lemons, Pomegranats, Orenges, and Vinegar.

Chap. 6. *Of* Singultus, *or Hiccough.*

Singultus or Hiccough, is a depraved Motion of the Stomach, by which it desires to expel somthing that is hurtful.

It is distinguished from vomiting, because that which is so sent forth, is contained in the Cavity of the Stomach; and it is wholly turned to throw it out: But in Singultus the matter offending is fixed in the Tunicles of the Stomach, therefore it doth contract it self, and shakes its fibres, to exclude it. And that we may comprehend loathing also in this Definition, we say that the expulsive motion of the Stomach is three waies: For either Nature would sometimes rise to expel, and cannot; or it is not sufficiently raised to this motion, and then it is Nausea or loathing: sometimes it riseth and expelleth, and then it is Vomiting: or lastly, it riseth to expel, and cannot, and that is Singultus.

This is a Convulsive Motion, not a Convulsion, which is only in the Muscles, and parts given to voluntary Motion.

The immediate Causes of Singultus are propounded by *Hipp.* Aph. 39. Sect. 6. that is, Emptiness and Repletion, as of a Convulsion. But *Galen* and *Avicen* ad a third Cause, namely, a provocation by a sharp matter. Some labor to bring the matter provoking to a kind of repletion, that they may excuse *Hippocrates.* But when the matter is plain, we need not confound and darken the evidences of things for Authors words: For what is more cleer, than that Singultus comes from the expulsive faculty provoked? Therefore whatsoever can provoke is the immediate cause of Singultus or Hiccough. But Humors and Vapors offending either in quantity or quality may provoke the Stomach to expultion, and so repletion and acrimony are two distinct causes. But it is not easie to shew how emptiness makes a Singultus: For since its Essence is in defect, none will say that Nature riseth to expel a defect; but rather will be moved to refresh and repair it, and so it doth rather move the Attractive than the Expulsive Faculty. But if Singultus follow great Evacuations, as in sharp Feavers, and malignant, and purging with Hellebore, it is not simply to be attributed to the Evacuation, but rather to a malignant quality in the Stomach, coming from the Disease, or some Medicine taken.

The Matter causing Singultus is either gathered in the Stomach, or sent from the Liver, Spleen Guts, or other parts; or from the whol Body. So sharp Nourishment, or sharp Medicines, or sharp Humors, or gnawing Worms contained in the Stomach, cause a Singultus by propriety: but inflamation of the parts adjacent by water or vapors sent to the Stomach, make it by consent: as also because the Tumor, especially when the Liver is inflamed, doth compress the Stomach, by which the expulsive faculty is continually provoked. Finally, Humors may be brought from the whol Body, or sharp humors to the Stomach, in diseases of the whol Body, as appears in sharp and malignant Feavers.

The Diagnosis, or knowledg of this Disease, is manifest of it self. But the signs of the Cause are thus to be distinguished, so that if it be by propriety, the disease is more lasting, and there will appear signs of the Humors contained in the Stomach, and the disease is asswaged by Vomit. The Humor contained in the Stomach is known by vomit, belching, taste in the mouth, and by other signs. And finally, if it come from a disease in any other part, you may take the signs thereof from their proper Chapters.

As to the Prognostick: Singultus that comes from any principal Cause, as Meat, Drink, or Cold, is not dangerous; as also that which goes before a Crisis by Vomit, and then other signs must be healthful.

If any have the Hiccough in a great Feaver, the Disease is very dangerous, *Hipp. in Coacis.* For it comes from sharp Humors, and malignant, which pull the Tunicle of the Stomach inwardly, and spice its expulsive faculty. And *Vallesius* saith, that he never knew any extenuated persons taken with a hot and malignant Feaver, who had a Singultus, to escape: So it is in *Hipp.* 3. Epid. Sect. 2. Aegr. 12. A woman living in the Marker, had many Hiccoughs upon the twelfth day, and died the fourteenth day of her sickness. Also *Platerus* observed, that a Singultus coming upon burning Feavers, and continuing, is for the most part a forerunner of death, and the same is deadly in a Dysentery, or bloody flux.

After Vomiting, Singultus and redneſs of the Eyes is evil, *Hipp.* Aph. 3. Sect. 7. Theſe two ſigns coming after Vomiting in acute Diſeaſes, and continuing any time, therefore are ſaid to be deadly, becauſe they declare an inflamation of the Brain or Stomach; which inflamation is not only the cauſe of Hiccoughs and redneſs of Eyes, but alſo of Vomiting: For if Vomiting come from ſharp Humors that gnaw the mouth of the Stomach, and its Tunicles, when thoſe Humors are thrown out by Vomit, the Singultus and vomiting would ceaſe, nor would any ſharp vapor be ſent to the Eyes, which ſhould make them red: But when Vomiting doth not only not profit, but alſo brings after it Hiccoughs and redneſs of the Eyes; it is moſt certain that theſe three, namely, Vomiting, Hiccoughs, and Redneſs of the Eyes, do come from the Inflamation of the Brain or Stomach: for the Brain being inflamed, doth through abundance of blood ſend it to the Eyes, and into their extream Tunicles, whence comes redneſs; to which alſo the Stomach conſenting by the Nerves of the ſixth Conjugation, is eaſily from the Inflamation of the Brain brought to Vomit and Hiccough. Alſo the Stomach inflamed by a concourſe of hot blood to the Eyes by reaſon of the great conſent between thoſe parts, brings Vomit, Hiccoughs, and redneſs of the Eyes, which the beginning of ſuffocations do demonſtrate, and the appearance of things before the Eyes which are in the Stomach diſordered; whence *Hippocrates* in his Book *de locis in homine*, affirms that the Eyes are chiefly hurt by Vomiting.

Singultus from Inflamation of the Liver is hurtful, *Hipp.* Aph. 17. Sect. 7. which comes then, as *Galen* ſhews in his Comment upon that Aphoriſm, when the Inflamation is greater and worſe, for then it is ſo great in the Liver that it lieth upon the Stomach, and brings the Singultus: nay, ſometimes by conflux of matter, there is ſometimes an inflamation or Eryſipelas in the Stomach: or elſe there comes gnawing from the ſame being ſucked into the Tunicles of the Stomach.

The Cure of this diſeaſe is directed to the Cauſes, which as I ſaid, do either produce it by way of Sympathy, or Propriety. The Cauſes which produce it by ſympathy, are the diſeaſes of other parts, which being cured, this is cured, although theſe Medicines are to be adminiſtred then, which are good to allay the Symptome, which ſhall be afterwards declared.

This Diſeaſe by Propriety comes of Flegm, Wind, Choller, or ſome ſharp or malignant Humor.

That which comes from Flegm in the Tunicles of the Stomach is cured by Medicines which cut the Humor, cleanſe and purge it, and by ſtrengtheners of the part, ſuch as were preſcribed for the Cure of want of Appetite coming of a cold Cauſe. To which we may ad theſe following, as more proper to this diſeaſe.

Take of *Caſtor one dram*: *the juyce of Mints four ounces*: *Mix them, let the Patient take one ſpoonful or two every fit*: *and you may anoint the Stomach with the ſame Medicine warm, twice or thrice in a day.*

He may take Vinegar of Squils often to cut and diſſolve the matter contained in the Tunicles of the Stomach, or inſtead thereof, Oxymel of Squils.

Cloves held often in the mouth do not a little profit.

Alſo the *Elixir Proprietatis* of *Crollius*, is very profitable.

Take of *Dill ſeeds, two or three drams*: *boyl them a little in eight ounces of the beſt Wine*; *of which let the Patient take one ounce firſt and laſt.* *Let the ſame Seed be put into a cloth, and often ſmelled to.*

When the Diſeaſe is violent, theſe Pills following are very good.

Take of *Caſtor and Myrrh, of each three drams*: *Sal gem. half an ounce*: *Diagridium, and Maſtich, of each one dram*: *Agarick newly trochiſcated three drams*: *Aloes, as much as all the reſt*: *make them with Juyce of Mints into a maſs, of one dram whereof, make ſix Pills gilded.* *Let him take two or three in the morning twice in a week, two hours before meat.*

Plainer Pills, and almoſt as good, may be made of Hiera with Oxymel, of which you may give a dram.

In the daies between the taking of Pills, give this Pouder:

Take of *Dill ſeeds half an ounce*: *Zedoary, Lignum Aloes, Nutmegs, Cloves, and pouder of Diambra, of each one dram.* *Let him take two ſcruples in a morning with a little ſweet Wine, or put to them three ounces of Common Salt, and let him eat it with all his Victuals.*

Apply this Cataplaim following to the Stomach.

Take of *Roots of Ariſtolochium, or long Birthwort, Flowerdeluce, Bay-berries, dried Leaves of Rue and Mints, of each three drams*: *Caſtor and Myrrh, of each two drams*: *Cloves, and Hypociſtis, of each one dram.* *Make a Cataplaſm with Honey of Roſemary.*

At length, when the diſeaſe is ſtubborn, you muſt uſe the Decoction of Guajacum and Baths of Brimſtone, as the beſt Medicines.

That which comes from wind, is cured by the ſame Medicines, adding thereto things to expel wind.

Apply also Cupping-glasses to the region of the Stomach, which miraculously do presently abate, and take away the windy diseases of the Stomach.

That which comes from a sharp Chollerick Humor, besides those Remedies which were prescribed in want of Appetite coming of a cold distemper, most proper also to this Disease, must be cured by Phlebotomy (if there be Plethory or fulnes) by vomiting and gentle purging every third day, thus made:

Take of *the pouder of Rhubarb, sprinkled with Endive Water half an ounce: the pulp of Tamarinds, two drams: the seeds of Endive and Purslain, and of Spodium, of each one dram: yellow Saunders, and Diagridium, of each half a dram: with syrup of Lemons make a Mass of Pills of half a dram; whereof make Four or Five Pills to be given in the Morning as aforesaid.*

Upon other daies let him take Conserve of Roses and Borrage, mixed with a little Triasantalon or the Opiate mentioned in the Cure of Want of Appetite.

Emulsions often used, made of the Cold Seeds, do powerfully asswage the sharpnes of the Humor; or in a disease not very hot, the milk of sweet Almonds.

Syrup of Apples, with Syrup of Quinces is to be given in a spoon.

He must take Broth often.

And must drink cold or warm Water or Ptisans often.

The Oyl of sweet Almonds doth asswage the sharpnes of the humors.

Let the Stomach be Fomented with a spung dipt in Rose water.

Take of *the Cerat of Saunders and Oyntment of Roses, of each one ounce: Mastich half an ounce: Citron peels and pulp of Quinces, of each one dram: with Juyce of Housleek and a little Turpentine, make two Emplaisters, of which lay one to the fore part, another to the hinder part of the stomach.*

Anoint the region of the Liver with Cooling Oyntments, because the Humors use to flow from thence to the stomach.

If you suspect any infection, you must give Treacle and other Antidotes, and anoint the stomach with the Oyl of Scorpions according to *Matthiolus*.

These Medicines following are good against the Hiccough of what cause soever.

First, Expel the Humor offending by Vomit, if the Patient can wel endure it; and Repeat it, if the Disease abate, and give stronger if necessity requires.

As *Platerus* sheweth in his *Practice*, of which he gives an example, in his *Observations* in these words, *A Chirurgion being sick began to Hiccough day and night so that he could neither sleep, speak well, or take meat: at last being thus weak and nothing profiting him, when he was in an agony, we gave him not without fear but at his own entreaty, a strong Chymical Vomit at hand, by which he vomited abundance of choller green and black, and so was cured.*

If the Patient abhor Vomits, Purge him.

But prepare the Humors first or before you repeat it, with cutting and clensing means; after use these following:

Apply Cupping Glasses to the Back against the Stomach or before.

Bind the Stomach that it may not be dilated.

Use Ligatures to the remote parts.

Take Annis-seed, for they say that doth specifically cure.

And give often Clysters to draw the Humors from the Stomach.

Apply yong Creatures to the Stomach.

And, Take Vinegar of Squils in a spoon.

Neezing doth shake off the Matter which is compacted in the Tunicles of the Stomach; as *Chrysimachus* the Physitian in *Plato* cured *Aristophanes* by Neezing, when he could not be cured by holding his breath, and gargling of cold water.

Galen, 8. *de comp. med. sec. loc.* mentiones the Medicine of *Asclepiades*, of which he examineth every Simple, and approveth them as if it had al Faculties fit for this intention; namely, To discuss and Evacuate the Matter hurtful, by Stool and Urin, to strengthen the stomach; and lastly to mitigate sharpnes.

The Composition is thus:

Take of *Costus or Galangal, Saffron, Spikenard, Roses, Mastich, of each four scruples: Asarabacca and Aloes of each two scruples: Opium one scruple: with the Juyce of Fleabane make them into little Balls or Cakes, and let him take one of a scruple in weight every morning.*

In imitation of that you may quicklier prepare Pills for one Dose, of one dram of Aloes two or three grains of Laudanum; And if you wil Purge more, give three or four grains of Diagridium.

Duretus

Duretus teſtifieth what excellent force Aloes hath in this Diſeaſe, in theſe words, *Many when they have been almoſt dead with the Hiccough, have been cured with Purging five dayes together with Hiera after they have voided black glutinous humors.*

Platerus reports in his Obſervations, That he Cured a Boy of ten yeers old, that was troubled night and day for eight dayes together with the Hiccough, with the Water of green Nuts, diſtilled with Rhadiſh firſt macerated in Vinegar, which he gave as a Vomit; and though he vomited not, yet he was eaſed; and taking a draught thereof at night, was preſently Cured.

Foreſtus reports, That he Cured one with one draught of the Decoction of Dill-ſeeds, Carva, Purſlain, and white Poppy-ſeeds, made in ſmal Ale.

Claudinus doth highly commend Diaphœnicum with Philonium Romanum, when the Cauſe and the Symptome are very violent.

Laſtly, Narcoticks only do alone Cure this when al other things fail, by ſtupifying of the ſenſe of the part which is too exquiſite.

Chap. 8. *Of* Nauſea, *and Vomiting.*

NAuſea and Vomiting differ only in degrees, and both are the motion of the Stomach by which it either expelleth or labors to expel things contained therein; therfore Nauſea is a deſire to Vomit with trouble, and only ſending and pewking forth a thin wateriſh Humor by Salivation: whatſoever troubles the Stomach either in quantity or quality uſeth to ſtir that up, when it cannot be voided by reaſon of the weakneſs of the Stomach, or the ſtrength of the upper Orifice, or thickneſs of the Matter, or ſlimineſs.

But Vomiting, which is called in Greek *Emetos*, or *Emeſia*, is a Depraved motion of the Stomach, which ſhaketh it, by which the Expulſive Faculty is ſtirred up by Contraction of the Fibres of the lower part and looſening thoſe in the ſuperior, doth ſenſibly with a violent Motion throw upward the Matter contained therein, which is troubleſom unto it; it is called a Depraved Motion both in reſpect of the Object troubling it, as alſo in reſpect of the Motion it felt, which is from the bottom of the Stomach to the Mouth of it, turning it, when the natural Motion of the Stomach is Compulſive towards the Guts and the Pylorus.

The Differences of Vomitings are taken from their Cauſes, which are either External or Internal; therefore it is Divided firſt into Natural and Artificial; the Natural again, is either without a Diſeaſe, or in the Diſeaſe; from whence ariſeth a Three-fold Difference, one is called Periodical, another Critical, and another Symptomatical.

Periodical is that which without a Diſeaſe, is uſed for preſervation often, from whence we reade in *Hippocrates*, That the Ancients did Vomit Twice every Month, either at diſtance, or together.

And there are many in our times, who uſe either every Month, or Week, or Day to Vomit Choller, or Flegm; by which they are Preſerved from many Diſeaſes: And this is not properly a Symptome, becauſe there is no Diſeaſe preſent; but it is rather to be termed a Motion of Nature.

Critical Vomiting often happens in Diſeaſes, and by that the Matter of the Diſeaſe, if preparation be firſt made, is wholſomly Evacuated; either al, by which it is Cured; or in part, by which it is Diminiſhed.

Symptomatical Vomiting comes from Nature provoked and weakned and without eaſe to the Patient, becauſe it is not enough, or it is nouriſhed continually with the Matter that maketh the Diſeaſe.

Other Differences of Vomitings are taken from the things vomited, for they are either Nouriſhable or Excrementitious; the firſt is of Meat, Chylus, or pure or mixed blood: the latter is of Flegm, Choller, Melancholly, Water, Matter, Worms, and the like.

Artificial Vomiting, generally is whatſoever is from an External Cauſe: The External Cauſes, are chiefly Stroaks, Falls, Compreſſion of the lower Belly, Southernly weather, or infectious Air, Poyſonous Breath, Stinking Smels, Violent Exerciſe, Riding, Sayling at Sea, eſpecially in a Southernly wind, beholding or conceiving of ſome filthy thing: And the like External Cauſes which provoke Nature, or move the Humors; but eſpecially things taken in have great force, not only vomits called *Emetica*, and Poyſons which we diſtaſte; but alſo Nouriſhment either hurtful in their Nature, or hated peculiarly of ſome; as in *Hippocrates*, who ſpeaks of one who with eating of Muſhromes or Toad-ſtooles, died Vomiting. The ſame happened to a Courtier of *Antonius* the Emperor, who by eating much mouldy Cheeſe died Vomiting. The quality of Food wil do the ſame if it be Fat or Oyly, as alſo a propoſterous order in eating, when moiſtning and looſning things

are

are eat after astringents, and also too much food taken, though never so good, as appears in Gluttons; for then Nature being over charged, desires to throw out what she cannot concoct, to which she is also stirred up by the evil quality which is brought to those meats by corruption, or evil concoction.

The internal Causes are either Antecedent, or Conjunct.

The Antedent Causes either come from the whol Body, or from some proper peculiar part into the Stomach. They come from the whol Body in a Plethory, evil habit or Cachexy, Feavers, and other diseases of the whol Body. The Humors are often derived from some peculiar part into the Stomach in the inflamation of the Liver, Spleen, or other Obstruction of the Mesentery, from the Terms stopped, or Hemorrhoids, from a Catarrh, or the like. To this you may ad the evil Conformation of the *Porus Cholidochus* when it is not placed into the Duodenum, but into the Stomach, whence they are called *Piebrocholi Ana*, who are often troubled with Chollerick Vomits, by reason of this evil Conformation. Also this vomiting cometh by the Peristaltick motion of the Guts, when they are stopped in the Chollick, and the humors cannot well get forth, but come upwards; also Worms coming up into the Stomach from the Guts, and pulling the inward Tunicle thereof, do cause vomiting. And lastly, An Impostume broken in the Spleen, Melentery, and other parts of the Abdomen, useth to cause a vomiting of Matter.

The Conjunct Causes of Vomiting, are them before mentioned, when they come to the Stomach; for while they were in other, they were antecedent Causes. These are especially divers Humors, some bred in the Stomach, especially Flegm, of which there is often much in the Stomach, by Crudities, and want of Concoction when the Stomach is weak, and turns it into flegm. So also is there somtimes green Choller in the Stomach bred of corrupt Humors, as *Galen* teacheth, Com. in 2. Progn. and this cleerly appears in sucking Infants, who through corruption of Milk in their Stomach use to avoid green stools like Leeches, or Verdegreese.

This green Choller which comes from corrupt nourishment in the Stomach, is not the same with that which cometh from yellow Choller by aduction and torrefaction.

The Signs of Vomiting are manifest. But the Causes, as they are divers, so they have divers signs.

First then, if Vomiting come from a fault in the Stomach, there are signs of that part being affected, as loathing of meat, heavines, extension, swelling in the Region of the Stomach, slow and hard Concoction, sowr and stinking belchings, and other signs that shew the distemper of that part. So if it come from a Common and Organical Disease in the Stomach, as a Tumor, or Ulcer, the signs of these Diseases will discover themselves. But if Vomiting come by sympathy from the whol body or other parts, there will appear some Disease of the whol body, or some part.

The whol Body is affected in Feavers, evil Habit, Jaundice, Atrophy or want of nourishment. But the Principal parts from which the Humors are sent more frequently to the Stomach, are the Brain, Liver, Guts, and Womb.

If the Humors flow from the Brain to the Stomach, there will appear signs of distillations, frothy and flegmy vomitings, and a great loathing at meat time.

If the Humor come from the Liver, it is commonly Choller; and Vomiting before meat, is worse than after; and there appears some disease in the Liver, as pain or tumor.

If the Matter come from the Guts, either there will be Chollick or Illiack passion, or the signs of Worms.

Lastly, If it come from the Womb, there is Conception, suppression of Terms, or other Symptomes.

We may also know by some signs whether the Humor be contained in the Cavity of the Stomach, or stick to the Tunicles thereof. For if it be in the Cavity it is easily cast forth, and there is stretching in the Stomach, and trouble after Meat, which will not cease till the Humors are sent out by vomit, which are for the most part thrown out alone, and the Meat retained. But if the Humors stick to the Tunicles, vomiting is chiefly after Meat, and the Meat is cast forth without the Humors, but when there is no Meat, there is a loathing, and that which is cast forth, is thick and slimy, and with great straining.

The external Causes are known by relation of the Patient, as if he hath eat or drunk too much, or received a stroak, or eat any evil thing.

The signs of Vomiting to come are shewed by *Galen, lib.* 3. *de crisi. cap. ult.* as Headach, dark giddiness, trembling of the lower Lip, gnawing at the mouth of the Stomach, often and much spitting.

You must make the Prognostick thus:

Vomiting from Choller and Flegm, which is neither very thick, nor very much, and which hath both those Humors exquisitely mingled, is good. For it is commendable in substance, quantity, and quality. For of all excrementitious Humors, Flegm and Choller are the mildest: if then they be

be vomited well mixed, and in a moderate quantity and conſiſtence, it hath all the laudable conditions.

Chollerick and Flegmatick Vomitings on a critical day are very good: For not only mixed are good, but vomiting of one ſingle, if it cauſe the Diſeaſe. So in Chollerick Feavers, when Choller comes forth critically, or Flegm in Flegmatick Feavers, the Diſeaſe is at an end, or at leaſt there is great hopes of recovery.

A Vomiting naturally after a long flux of the Belly, cures the diſeaſe, Aph. 15. Sect. 6. for there is a revulſion of the Matter to the contrary part. And this ſhews that Nature is refreſhed, and gets ſtrength: For as the Phyſitian ought to labor for the retraction of thoſe things that flow to any part. So Nature, when ſhe begins to prevail, makes a repulſion of the Humor, which flows to the part affected, that the part may be refreſhed and ſtrengthened.

Little and violent vomiting in a ſharp Feaver, is evil; for it is not good to void ſparingly in a Criſis; for it ſignifieth one of theſe two things: Either abundance of Matter which Nature cannot bear, but muſt ſend ſome of it forth: or the weakneſs of Nature, which ſtriveth in vain to ſend forth that which is ſuperfluous.

Vomitings of divers colors are evil, it ſignifieth divers Humors lurking in the Body, and therefore Nature will be more put to it with divers enemies; for if it be troubleſom to Nature to contend with divers Nourihments, how much more dangerous is it to ſtrive to concoct and tame divers preternatural Humors, eſpecially in acute Diſeaſes, in which there is but ſhort time to fight, which ſhould be long, that there might be more hope of Nature being a Conqueror.

Green Vomiting like Leeks, Verdugreeſe, as alſo blew, black, or ſtinking, is deadly: For it ſignifieth that there is abundance of Choller of thoſe colors: And all theſe kinds of Choller uſe to produce malignant and deadly diſeaſes. And if there be a ſtink, it ſhews a great corruption of Humors, with which Nature cannot long conſiſt.

In acute Feavers, Vomiting without mixture of Humors is evil, according to *Hipp.* 1. Porrhet. For a pure Humor is not only crude, but incapable of Concoction, becauſe it excludeth not only the act, but the power of Concoction. *Hippocrates* calls every humor that is without mixture, and every Excrement that is hot and crude, *Acriton*, becauſe it is bred either by the defect of ſome part, or by reaſon the watery, ſerous matter is exhauſted by the heat of a Feaver. Therefore in ſharp Feavers it ſhews that there is a great inward inflamation, and for the moſt part ſuch as Nature cannot conquer.

As for the Cure: If Vomiting come from a diſeaſe in ſome other part, it needs no other Medicines than thoſe which are agreeable to the diſeaſe from whence it comes.

But if it come from Chollerick, Flegmatick, or Melanchollick Humors which ſtimulate and provoke the Stomach, either by their quantity or quality, you muſt throw out thoſe Humors by Vomitive Medicines.

But if they be thick and glutinous, or clammy, they are to be cut and cleanſed, as we ſhewed in the Cure of want of Appetite.

The beſt Vomit in this caſe, is that which is indifferent gentle, and not too weak, as warm Oyl: nor muſt you give ſtrong ones made of Antimony, which draw violently from remote parts. But ſuch as do cleanſe and diſſolve the glutinous Humors, as *Gylla Theophraſti*, or white Vitriol prepared: But Salt of Vitriol brought to a high redneſs by Calcination, is the ſtronger.

If Vomits are unpleaſant, you muſt take away the Matter with often Clyſters and gentle Purgations with Rhubarb in them, which aſtringeth and ſtrengtheneth afterwards.

In Chollerick Vomitings, theſe Pills following may be preſcribed:

Take of *Aloes waſhed with Roſe Water three drams: the pouder of Rhubarb ſprinkled with Borrage Water one dram: Maſtich, red Sanders, and Coral prepared, of each one ſcruple: With Syrup of Roſes Solutive make a Maſs of Pills, of which take half a dram, or a dram every other day, till the Vomiting be ceaſed.* Or,

Take of *Rhubarb poudered one dram: yellow Myrobalans one ſcruple: Spodium, or burnt Ivory, and Harts-horn ſhaved, of each ſix grains. Make a pouder, and give it twice in a week, in a little Broth.*

Or make a Bolus of Hiera Picra, or three drams of Diacatholicon, with one dram of poudered Rhubarb.

In a moſt violent Vomiting, give three grains of Laudanum, with two ſcruples and an half of Cochie Pills the leis, the Vomit will be ſtayed, and five hours after they will work downwards. There is a good quantity of the purging Pills in this Receipt, becauſe Laudanum doth aſtringe, and therefore it muſt be given with Medicines made of Diagridium, and Coloquintida. And if the Medicine do not come away, you muſt give a ſharp Clyſter.

After ſufficient purging, you muſt ſtrengthen the Stomach with Syrup of Quinces, ſowr Pomegranates, old Conſerve of Roſes, or Contry Roots, Conſerve of Quinces; or this following Julep, if it be very Chollerick and vehement.

Take

Take of *the juyce of sowr Pomegranats six ounces*: *the juyce of Mints clarified two ounces*: *Sorrel Water one pint*: *white Sugar half a pound*: *make a Julep, in which while it is clarifying boyl gently in a clout of yellow Saunders, red Roses, and Spodium, of each one dram*: *Let him take four ounces first and last.*

Take of *Terra Sigillata, or sealed Earth, Bole Armonick, red Coral, prepared Pearl, Purslain, and Sorrel seed, of each one dram*: *shavings of Harts-horn, and of dried Mints, of each one scruple*: *red Roses half a pugil*: *Make a Pouder to be taken in Broth, or the like; or in a spoonful of Chalybiate Water.* Or,

Make Tablets thereof with Sugar dissolved in Plantane Water, or an Opiate with Syrup of Quinces, Conserve of Roses, or Comfry Roots.

Some few Grains of the best Mastich, taken in the Morning, is good to stay Vomitting.

Three Grains also of Balsom of Peru taken in a rear Egg, or in Sugar like a Pill, do it better.

Also a Decoction of Beans, or Pease, after the first Water is cast away, with a little Vinegar, is much Commended.

And the Crude Juyce of Quinces, taken Two or Three spoonfuls at a time, doth Wonders.

Camphire often smelt to, or taken with a little Rose Water, and a little Pouder of Diamoscum, is good for the same.

The Spirit of Vitriol mixed with Plantane or Spring Water, to make it sharp, doth also powerfully stay Vomiting.

If it be very violent, make the Water sharper with Spirit of Vitriol; or give it in Sack, or rich Wine; if you want Spirit of Vitriol, use the strongest Vinegar without mixture, one spoonful or two at a time.

One Scruple of Salt of Wormwood, mixed with a spoonful of the Juyce of Lemons, is a most Excellent Medicine; especially in those Vomitings which happen in Malignant Feavers.

If the Patient grow very Weak with Vomiting, give him Laudanum with Conserve of Quinces, or Syrup of dried Roses; and then apply a Cupping Glass to the Stomach, and a Cataplasm of Leaven, pouder of Wormwood, and Orange peels, made up with juyce of Mints.

Apply also outwardly a Fomentation to the region of the Stomach, a new Spunge dipt in Rose-water and Rose-vinegar; or let the Spunge boyl in strong Vinegar, and apply it hot to the Stomach.

Or make a Fomentation of the Decoction of the Roots of Snake-weed, Plantan-leaves, Purslain, Mints, Bramble-tops, and Willow-tops, and then anoint it with this Ointment.

Take of *Acacia, Hypocistis, grains of Sumach and Myrtles, of each two drams*: *Mastich and grains of Kermes, of each one dram*: *Oyl of Myrtles two ounces*: *Wax as much as is sufficient*; *make an Ointment*: *or apply this following Cataplasm.*

Take of *Quinces boyled in Rose water and Vinegar, or Marmalate thereof well beaten, three ounces*: *the pouder of Mastich, Grains of Kermes, and Myrtle berries, and Plantane-seed, of each two drams*: *with the Juyce of Mints, or Quinces, or Syrup of Wormwood, make a Cataplasm.*

Or, Steep a Crust of Bread in Rose Vinegar, and sprinkle it with this pouder following:

Take of *red Roses, and Pomegranate flowers, and Coriander seeds prepared, of each one dram and an half*: *Mastich, red Coral, Sorrel seeds, Spodium, of each half a dram*: *yellow Saunders one scruple*: *mix them into a pouder.*

Or, Apply this following Emplaister:

Take of *Mastich plaister, one ounce*: *the pouder of Myrtles, and Bistort-Roots, of each half a dram*: *with the Oyl of Mastich make an Emplaister in the form of a Buckler.*

If the Vomiting be very violent, and bring a Feaver Symptomatical, and the Body very full, it is good sometimes to let blood to prevent inflamation which may be in the internal parts by reason of the violent straining; and this must be done warily, and but a little, least the strength be abated.

Moreover, It is good to apply Cupping Glasses to the Back and Navel, and to rub and bind the extream parts.

You may bind about the Neck Linnen Clothes dipt in Oxycrate to repel the humors: putting of the hands into cold Water, doth stay all kinds of vomiting.

And Last, When other things avail not, use Narcoticks which do very quickly stop all Evacuations.

In

In a Flegmatick Vomiting (if it wil not be ſtaid with the aforeſaid Vomits) give Pills of Hiera, with Rhubarb and Agarick, or other fit Purges.

Then come to ſtrengtheners for the Stomach, ſuch as were preſcribed for the Cure of Want of Appetite: to which ad this following:

Take of *Conſerve of Roſes and Comfry Roots, of each one ounce: confection of Hyacinth, three drams: the pouder of Diambra, and Aromaticum Roſatum, of each half a dram: Troches of Spodium, terra Sigillata, and grana Kermes, of each one ſcruple: with ſyrup of Quinces make an Opiate.*

The Spirit of Vitriol with Wormwood water, or Juyce of Mints, doth mightily ſtay Vomiting, and Strengthen the Stomach.

Or, One or two ſpoonfuls of Aqua Imperialis, given after Vomiting if the Stomach be very Cold.

Apply theſe things following outwardly:

Take of *Wormwood, Mints, and Balm, of each three handfuls: boyl them in a ſufficient quantity of Vinegar and Wine, to the conſumption of the third Part; make a Fomentation for the ſtomach.*

After apply the Plaiſter afore-mentioned, or the Cataplaſm of Quinces, uſing the Pouder of Nutmegs and Cloves, inſtead of Myrtles and Plantane. Or,

Take of *Wormwood and green Mints of each one pound: a Toaſt dipt in Roſe-water weighing half a pound: the Pulp of Quinces, or Marmalat of the ſame, two ounces: Maſtich half an ounce: Mace and Nutmegs, of each two drams: beat them all well together with Oyl of Quinces and make an Emplaiſter.*

Or, Make a Cataplaſm of Quinces boyled in ſtrong Vinegar and then beaten with a little Muſtard-ſeed and Pouder of Cloves.

Or, Apply a Toaſt dipped in ſtrong Wine and Juyce of Mints, and ſprinckled with pouder of Nutmeg, Cloves, Frankinſence, Maſtich, and Graines of Kermes.

Villanovanus much Commends ſharp Leaven, which he applieth to the Stomach twice or thrice, being ſteept in ſtrong Vinegar and Juyce of Mints: this doth moſt certainly ſtop Vomiting after convenient Evacuations, and Revulſions.

In a long Vomiting where the Stomach is very Weak, you muſt uſe ſtrong Aſtringents made thus.

Take of *the Roots of Snakeweed and Tormentil, Pomegranate peels and flowers, and Hypociſtis, of each two drams: Leavs of Mints, and dried Wormwood, of each half an handful: Sumach and Myrtle berries, of each one dram: red Roſes one pugil: Cinnamon, Cloves, and Maſtich, of each half an ounce: green Galls, and Cypreſs Nuts, of each two drams: boyl them in Iron water and Red Wine, in which diſſolve a little Musk, for ſweet things do much aſſwage Vomiting, of which let the Patient take two ounces every morning, and Foment his ſtomach with the ſame.*

After the Fomentation apply ſome Plaiſter or Cataplaſm, made as aforeſaid.

Chap. 8. *Of Vomiting Blood.*

THis Diſeaſe is a caſting forth of Blood from the Stomach by the Mouth: And as al other Bleeding, it comes from the Veins either by Anaſtomoſis, or opening of them by Diapedeſis, or Rarefaction, by Rixis breaking, or by Diabroſis corroding, which Diſeaſes of the Veins were ſhewed in the Cure of Spetting of Blood, called Hæmoptyſis.

The Cauſes alſo are the ſame.

And Firſt the Conjunct Cauſe; Exceſs of Blood in quantity or quality.

Blood offending in Quantity, wil break or open the mouths of the Veins, and ſo comes Rixis, or Anaſtomoſis, which happeneth in ful bodies.

If it offend in Quality, as when it is too hot, or thin, it may cauſe an Anaſtomoſis, becauſe heat doth open the Orifices, and thinneſs makes it flow eaſily through; The ſame Qualities may Cauſe a Diapedeſis; for heat doth make thin the Tunicles of the Veſſels, and thinneſs Cauſeth the Blood to paſs through their pores.

Laſtly, Sharpneſs gnaweth and Ulcerateth the Tunicles of the Veins, and ſo produceth a Diabroſis.

The Antecedent Cauſes are the ſame with the Conjunct, but they differ in place; for when blood offending either in Quantity or Quality, doth immediately open the Veins: it is called a Conjunct Cauſe; and the ſame being contained in the Veins, is called an Antecedent Cauſe.

The parts sending, of which the chiefare, the Head, Liver, Spleen, and Womb, are antecedent Causes.

Often times Blood is carried from the Head to the Stomach by the Pallat and Gullet, or Oesophagus: and also a violent Catarrh of sharp and Salt flegm, doth corrode the Stomach, and open the Veins thereof.

It is carried from the Liver and Spleen by the Veins that go to the Stomach from the Womb, when blood by the stoppage of the Terms, runs back and opens the Veins of the Stomach, so that some Women have had their Terms by vomiting blood constantly at the time.

Vomiting of blood comes oftener from the Liver and Spleen, than from other parts, and from the Spleen than the Liver, because it doth more consent with the Stomach. For it is evident by Anatomy, that the great branch of the Gate Vein, or *Porta*, goeth to the Spleen, from which many Veins are sent to the Stomach both above and below; and these are so great that being distended with wind or blood, they are as thick as the middle finger: this we have observed in Dissection. Moreover, the *Vas breve* being wide, as in a natural state, it doth continually send Melancholly into the Stomach; so being in a Preternatural state, it may send great plenty of blood. But observe here, that in this case, that blood is voided by stool as well as vomit, both because a part thereof which went to the Stomach, is sent downwards, and also because the Meseraick Veins are open, and send blood into the Guts, which by its long passage through the Guts groweth black, and comes forth like Tar.

The external Causes are, all things that can wound or bruise, as also great heat which causeth boyling of the blood; hence it is that yong men to the age of thirty five, are very subject to vomit blood, and other bleeding, as also great cold by too much astriction may endanger to break the Veins: the same doth unseasonable Motion and Labor, unusual Exercise, great hollowing, and the like, which move the blood violently in the Veins.

And finally, All the Causes of Blood-spitting afore mentioned. For Blood being violently moved either in the Veins or Arteries, whether from an external, or an internal Cause, goes soonest to that part which is weakest, and most fit to receive it; and therfore if the Stomach, or the Veins going thither are so disposed, there will be vomiting of Blood rather than any other way of bleeding.

The Diagnostick of this Disease lieth chiefly in the discovery of the part from which the blood comes.

If from the Stomach, the scituation of the part, and the constant pain and heavines thereof will demonstrate, and there is less blood, for the Veins of the Stomach are small, and it comes with loathing, and there is a biting when they swallow, as also somtimes it comes forth mixed with Meat, Flegm, or Choller,

If it come from the Head, there will be tickling about the Jaws and Pallat; and some blood will be blown out of the Nose with Snot; there went before it some Head-ach or heavines, which after bleeding ceaseth.

If from the Liver or Spleen there is more plenty of blood, and somtimes a tumor or dolor in the part. From the Liver the blood is red and frothy, from the Spleen it is thick and black. Also Blood from the Liver goes most downwards, because it commonly goes from thence to the Guts through the Meseraicks, and must ascend from them into the Stomach to cause Vomiting, but it doth easier descend. Contrarily, that which comes from the Spleen, is rather by vomit, because the Veins from the Spleen to the Stomach, are shorter and narrower.

Lastly, If from the suppression of the Terms, you may know it from the Woman, and it wil come at those times which wil be more probable, if there be no disease in any other part.

As for the Prognostick: Vomiting of Blood, of what cause soever, is dangerous; for it either threateneth death suddenly; or if it stay in the Stomach, and putrifie, it breeds faintings, swoonings, and suffocations.

Vomiting of blood from suppression of the Terms, is less dangerous than that from the Liver or Spleen; for when they are brought down it is usually cured, as *Hippocrates* taught, Aph. 34. Sect. 5. in these words: *When a Woman vomiteth Blood, if her courses break down, she is cured.* And in this case only, the opening of the inferior Veins doth provoke the Terms, especially if she take somthing besides for that purpose.

They who after Vomiting of Blood fall into the Dropsie called Ascites, do die thereof. *Dodonæus* doth testifie that he never knew any that escaped: and Experience teacheth that a Dropsie from any kind of bleeding is deadly; for it comes from a great dissipation of Natural heat, which cannot be repaired.

For the Cure of this Disease use Medicines which revel the Blood from the Stomach, and correct its distempers and the open Veins with astringents and glutinatives. To which ad those things which concern the part chiefly affected, from whence the Blood is sent into the Stomach, according to the divers Nature, and Disease of the part.

And because Diet is of chiefest concernment in this Disease, let us shew some Rules therefore.

Let

Let his Nouriſhment be commonly aſtringent and Emplaſtick, and cold both actually and potentially, as Barley, Almonds, Rice, Panadoes, Gellies, and eſpecially Starch made without Chalk, and boyled in Milk, which is good alſo in ſpitting of Blood: to all theſe you may alwaies add ſome Pomegranates, or Vinegar of Roſes. Alſo hard Eggs ſteeped in Vinegar are good; Bread crums ſteeped in cold Water, and Chicken Broth, with Sorrel, Purſlain, Plantane, and unripe Grapes; the feet and hips of Sheep, Kids, and Calves, boyled to a Jelly, for the firſt courſe, let him take that which is aſtringent, as a Quince, or ſowr Apple, or Pear roaſted in the embers, Marmalat of Quinces, or Jelly of ſharp Cherries, Medlers, or Services.

Let him abſtain from all ſharp, ſalt, peppered, and fried Meats, as alſo from things that breed much Blood, except he grow weak, and then you may give him them ſparingly. He muſt be but little nouriſhed, for the leſs Blood is bred, the Diſeaſe will be the leſs, and the empty parts by their attraction will ſtay the flux.

Let him drink little, only a little Iron Water with a little Juyce of Pomegranates. He muſt drink no Wine except it be thick and ſharp, which we call Tortium, and it muſt be when there is no Feaver.

Let the Air be cool, without Wind, Sun, or Moonſhine; let him ſleep little, and not in the day; for although all fluxes are ſaid to be ſtopped by ſleep, yet this by long keeping the heat in the Center may be encreaſed. Let his Belly be looſe, and he kept free from paſſions.

After his Diet is thus ordered, we muſt go on to Chyrurgery and Medicine.

And firſt take away a little Blood, often, for the greater Revulſion: and that out of the Liver Vein called *Baſilica*, in the right Arm, if it come from the Liver; in the left, if from the Spleen; or from the Ankle Vein, if from ſtoppage of the Terms.

Uſe Fricſtions and Ligatures to the extream parts, and give cleanſing Clyſters.

Apply Cupping-glaſſes to the Buttocks, Thighs, and Loyns, and to the Hypochondria.

Give half a ſcruple of Camphire with four ounces of Oxycrate, or Plantane Water. Which *Rondeletius* commends in his Counſels for excellent.

If you ſuſpect there is congealed Blood, give him a glaſs of Vinegar and Water, or Oxycrate, for it eaſily diſſolveth blood, and ſends it from the Veins of the Stomach, and ſhuts them up.

And foment the Stomach cold with the ſame.

When Vomiting ceaſeth, to aſtringe the Veins, uſe theſe following:

Take *the white of an Egg, Roſe Water and Vinegar, of each one dram and an half: Beat them well; then add two drams of Chalk. Let the Patient take now and then a ſpoonful.* Or,

Take of *prepared Coral, Terra Sigillata, Bole-Armenick, Blood-ſtone, and Troches of Amber, of each one dram: Plantane Water, and Syrup of Myrtles, of each two ounces: mix them for to be uſed as the former, or the pouder in Broths.* Or,

Take of *the Juyce of Plantane four ounces: give it cold morning and evening.* *Galen* ſaith there is nothing better for to ſtop any kind of Bloody flux.

The Juyce of Purſlain and Polyganon, or Knot-graſs taken with Sugar, is very good for the ſame.

Take of *Plantane and Purſlain Water, of each one ounce and an half: the Syrup of Myrtles half an ounce: the Syrup of Poppies two or three drams: Sal Prunellæ one dram: Mix them for a Julep often to be repeated. Or make a Julep of the Decoction of the ſaid Herbs.*

Take of *old Conſerve of Roſes, and of Comfry Roots, of each one ounce: of Cydoniatum half an ounce: one candied Myrobalan: Troches of Carabe, and Terra Lemnia, of each two drams: Coral prepared, and Crocus Martis, of each one dram: With the Syrup of dried Roſes, make an Opiate to be taken often.*

The Troches of Carabe do not only aſtringe, but diſſolve congealed blood, therefore uſe them often.

The Syrup of Coral is good; but the Tincture drawn newly with the Juyce of Lemmons is better.

When Blood is vomited violently, and will not be cured by what hath been ſaid, ſo that death threateneth; you muſt give Narcoticks, either at the Mouth, or by Clyſters.

Anoint the Stomach without with Oyl of Roſes, and Myrtles waſhed in Vinegar; and after ſprinkle on the pouder of Coral, Bole-Armenick, and Terra Sigillata.

Or anoint with this:

Take of *the Juyce of Plantane, and Knot-graſs, of each one ounce and an half: Vinegar of Roſes one ounce: Oyl Olive ſix ounces: Boyl them till the Juyces are conſumed: then add of Sanguis Draconis, Maſtich, Pomegranate peels, and Myrtles, of each two drams: Camphire one ſcruple: as much red Wax as will ſerve to make an Ointment.*

Let him drink ordinary Water, wherein Iron hath been quenched, with Syrup of Quinces, and Spirit of Vitriol: alſo make all his Broths of Iron Water.

Let his Hypochondria and Loins be Fomented with the Decoction of Plantane and Purslain made in Oxycrate.

Let his hands be put into cold Water, for so al Vomiting is staied.

After use the Oyntment of *Galen*, called, Refrigerans; washed in Vinegar, to the same parts.

After sufficient Phlebotomy, you must appoint an often and gentle Purge to take away the cause, and destroy the Disease, by which the blood wil be purged from Waterish and Chollerick Humors which produce this Disease.

These kinds of Purges, given by a wise Physitian, do Miracles; as we have learnt by Experience.

They must be made of Rhubarb, Myrobalans, Tamarinds, and Tryphera Persica; which Medicines do al astringe with their Purging, & do no wayes stir the Humors, so that you need not fear they wil provoke Vomiting of blood; you may give them in form of a Bole, with Syrup of Myrtles, or of dried Roses; or in form of a Potion, with the Decoction of Succory, Sorrel, Purslain, or the like.

In time of Purging, which may continue three or four dayes in a smal Dose; at night you may give the aforesaid Opiate or Syrup of Coral, or some of the afore-mentioned Astringent and strengthening Medicines.

Finally, To prevent, you may give for a long time once in a Week, one dram of the Pouder of Rhubarb, or the Magistral Syrup prescribed for to prevent Spetting of Blood; as also almost al other Medicines laid down in the Cure and Prevention of that, are very good here.

Chap. 9. *Of the Disease called Cholera.*

THis Disease is a violent sending forth both by Stool, and vomiting corrupt, sharp, and chollerick Humors.

It is called Cholera *Apo tes Choles* from Choller, as *Galen* shews from the opinion of the *Gnidian* Physitians, 2. meth. c. 2. that it comes from yellow Choller and evil humors like it which is sent upwards and down-wards. But *Alexander Trallianus*, lib. 7. c. 14. wil not have this Name to be derived from a Chollerick humor, because Choller is not alwayes vomited, but also often times a serous and Flegmatick Humor; but it comes rather *Apo toon Cholastoon* from the Intestines which were called *Cholados* by the Antients; because these Humors come from the Intestines and intrals: yet the first Etymology is more to be approved, because it is used not only by *Galen*, but by *Hippocrates* 7. epid. text. 19. by *Celsus*, lib. 4. cap. 11. and *Aurelianus*, lib. 3. acut. cap. 19. And although a chollerick humor is not alwayes sent forth, yet one like Choller, sharp, biting, and corrupt, is alwayes voided.

Some say the Stomach is the part affected, others the Guts, others both; but we must be of *Galen*'s mind, who saith, 3. de sympt. caus. cap. 2. The part which is principally affected is the Stomach, whose expulsive Faculty is vehemently stirred up, so that it expels the noxious humors at both orifices. But there is no doubt but the Gullet and Guts are secondarily affected.

Therefore this Affect is a Symptome of the expulsive Faculty being hurt, and vehemently stirred up, for it cannot depend upon the retentive faculty debilitated, for then the humors flow by degrees as in Lienteria and Coeliaca Passio: but we must confess that the Disease is more violent if the Retentive Faculty being weak do not resist the expulsive.

Moreover, The Concoction is hurt also, by which evil humors are bred in the Stomach which stir up the expulsive Faculty: but this is an Antecedent Cause, *Hipp. 4. de victus ratione in acutis textu* 104. laies down Two kinds of Choller, the one Moist, and the other Dry; the Moist is that which hitherto hath been described, and which is meant only in this definition as being the more usual: but the Dry is more rare, and it comes from a windy Spirit going from the Stomach and Guts, and griping those parts through which it passeth.

These Winds are produced either from the fiery heat of the Stomach corrupting the meat and making it stinck, or from windy rank meats, and Onyons, Radishes, and the like. *Sennertus* addeth another Cause, borrowed from the Hermetical Doctrine, namely, Salt Humors, and Adust in the Hypochondria, which grow hot by the mixture of another humor: For (saith he) as Salts and the Spirits of Salts mixed with sharp Spirits, make abundance of flatuous Spirits, as appears by the mixing of Oyl of Vitriol and Aqua fortis with Salt of Tartar. So doth it fal out in mans Body, by the Commixtion of a Salt and Adust Humor with other Spirits, there are many windy Spirits produced.

The immediate Cause of this Disease is a Chollerick, Burnt, Sharp, Salt, or rotten Humor in the

the Stomach, Guts, Spleen, Meſentery, or Prancreas, or ſome nouriſhment of evil quality, ſome ſtrong deadly Medicine, or poyſon taken. *Hipp. 7. Epid. Text.* 90. doth reckon up almoſt all the Cauſes of thoſe evil Humors, in theſe words: *Chollerick Evacuations upwards and downwards, come from eating too much fleſh, eſpecially Swines fleſh not roaſted: Alſo for meats not formerly uſed, from drunkenneſs with old Wine, and ſweet, from Pine Kernels, Locuſts, rotten Nuts, and from the uſe of Garlick, Leeks, Onions, eſpecially from boyled Lettice, Coleworts, and the like crude things; alſo from Tarts, and ſweet meats, Honey meats, Fruits ſoon periſhing, eſpecially from Cucumers, Pompions: and theſe Evacuations happen moſt in Summer, for then they are eaſily corrupt, and are indigeſted.*

It is worth the obſervation from whence ſo many Chollerick Humors ſhould come, which in this Diſeaſe are ſent forth by Vomit and Stool? It is uſually anſwered, that they come from the Meſentery, and the places adjacent, and ſomtimes from the whol Body, which though it be probable, yet we may ſay, That Humors corrupted in the Stomach, and parts neer therto, do infect other Humors with their Malignity, and that Nature is conſtrained to ſend to the Stomach and Guts, as venemous Medicines, Antimony, Coloquintida, Elaterium, and the like, by corrupting of the good Humors, do make an Hypercarthaſis, or over-purging.

The ſigns of this Diſeaſe, are an often and plentiful ſending forth of Chollerick, ſharp, and other corrupt Humors by vomiting and ſtool; a gnawing of the Stomach and Guts; a ſwelling with wind, pains, thirſt, with much heat and diſturbance; great Nauſeouſnes, and loathing, which is ſomwhat appeaſed with cold drink, but preſently is caſt forth with hot. The Pulſe is ſomtimes ſmal and unequal; ſomtimes with great ſweating, and Convulſion of the Thighs and Arms, ſwooning, coldneſs of the extream parts, and other grievous Symptomes.

The Cauſes of this Diſeaſe are eaſily known.

And firſt, the external are known by relation of the Patient, and thoſe that ſtand by. If he have taken too much, or food of an evil quality, or poyſon, or ſome violent Medicine.

The internal Cauſes are known by the quality of thoſe Humors which are ſent forth. We conjecture that it comes from the fault of the Stomach, if other parts are not diſtempered, and when there is a continual loathing, gnawing, and pain of the Stomach, the matter is ſent forth green; but if it be bred in the Veins, there is commonly a Malignant Feaver adjoyned.

You muſt make your Prognoſticks thus,

If it be very violent, it brings commonly ſudden death. If it come from ſome evil Food, it is leſs dangerous; for when that is ſent forth, the Diſeaſe ceaſeth.

By how much the greater the Symptomes are, as Swooning, Convulſion and coldneſs of the extream parts, by ſo much neerer at hand, is death.

Hippocrates in Coac. ſheweth that this is ſomtimes Critical to Feavers called *Lipyriæ*, which can no other wayes be cured (as he ſaith) but by a great caſting forth of Choller both upwards and downwards; and theſe Criſes or Judgments happen ſeldom, and ought to be ſuſpected, becauſe they have not the conditions of a good and Health bringing Criſis.

If vomiting begin to ceaſe, and the wan and deadly color of the Face to be reſtored, there is hope of Health.

In the Cure of this Diſeaſe, in the beginning thereof, ſome evacuation may be allowed while the evil and corrupt Humors do flow forth. And you muſt help it forward with drinking warm Water with Syrup of Vinegar, or with a great deal of thin Chicken Broth; which if it provoke not Vomit, will allay the ſharpneſs of the Humors. Or you may evacuate them with Rhubarb brought into a Pill with Syrup of Wormwood, and with cleanſing Clyſters.

Alſo fat mollifying Clyſters are to be given, made of Milk, Oyl of Roſes, freſh Butter waſhed with Roſe Water, or made of Chicken Broth, or Veal Broth with Yolks of Eggs; with which, as the diſeaſe ſhall require, you may mix Narcoticks.

Alſo Clyſters of Oxycrate are good, or made of the Decoction of Lettice, Plantane, with a little Vinegar, Syrup of Water-lillies, and Yolks of Eggs.

Alſo you muſt qualifie the Humors ſharpneſs with internal Medicines; as with the Decoction of Purſlane and Plantane with Syrup of Quinces and dried Roſes, with Lapis Prunellæ, if there be heat and thirſt.

And you muſt ſtop Vomiting with thoſe things both internal and external, which were preſcribed in the Cure of Chollerick Vomiting, Chap. 7.

Among which, the Narcoticks are beſt, and eſpecially new Treacle, which given in the quantity of a dram, doth preſently ſtop thoſe violent Evacuations. Laudanum doth the ſame, if you give four grains thereof.

If there be great weakneſs (as often happeneth) it is not ſafe to give the whol doſe of Laudanum; but it is better to give one or two grains, and to give it once or twice in a day, as neceſſity urgeth: for ſo the force of the Humors will be reſtrained, and Nature will have time to tame and concoct them.

After

After vomiting and purging are ſtayed by the Medicines aforeſaid, & the ſtrength is reſtored by Cordial means, the Patient ſeemeth to be paſt danger; which doth not only ſomtimes deceive the ſtanders by, but alſo the Phyſitians themſelves: for after a day or two of reſt and intermiſſion, the ſymptomes return more ſtrong and violent, and deſtroy the Patient who was made weak by their former encounter; which danger you muſt prevent, not only with Reſtauratives, and things that take away the heat of the Humors, as before mentioned, which muſt be continued after they are appeaſed; but eſpecially with Blood-letting, which doth revel the burnt and boyling blood, and greatly aſſwage it: and you muſt do it twice, or thrice, if the ſtrength be not impaired by the firſt, but rather ſeem to be refreſhed. Some Practitioners adventure in the time of the fit, when the ſtrength is decayed, adventure to open a Vein, becauſe they ſay the ſtrength is oppreſſed. But it cannot then be done without danger: and ſomtimes the Patient preſently after dieth, to their ſhame. For though we acknowledg that there is an oppreſſion of the ſtrength by reaſon of the ſuperfluous Humor, which is contained in the Veins, being an Enemy to Nature; yet it cannot be denied but it is greatly decayed by thoſe grievous vomits and ſtools. It is better therefore firſt to allay the violence of the Humors, and after the ſymptomes are aſſwaged to open a Vein.

And becauſe in this Diſeaſe the ſtrength quickly fails by ſtrong evacuations, you muſt be very careful in the reſtoring of it by that way which is ſhewed in the Cure of weakneſs in the eighth Book, and the third Chapter.

Chap. 10. *Of Pain in the Stomach, called* Dolor Ventriculi.

IT is a ſad and troubleſom ſence in that part, from ſome things that gnaw and ſtretch it till it break, or be wounded.

In the Stomach, you muſt conſider three parts, which much differ one from the other, namely, its upper Orifice, and its lower, called *Pylorus*, and the reſt of its Body which maketh up the whol Cavity.

The upper Orifice is of exquiſite ſence, by reaſon of the great Nerve which it hath from the ſixth Conjugation, and therefore pain therein is very ſharp, and makes the Heart which is the moſt noble part, and neer unto it ſenſible of the ſame; from thence it is called *Cardialgia*, and *Cardiogmos*: for there is ſuch a neer conſent between the mouth of the Stomach, and the Heart, that the Ancients called it by the name of the Heart, *Cardia*.

But if the Membranes of the Cavity, or the Pylorus be pained, it is called ſimply *Dolor Ventriculi*, and ſomtimes *Colica Ventriculi*, eſpecially when it comes of wind.

The immediate Cauſe of this pain, is ſolution of Continuity by things ſharp and diſtending, and they are chiefly Humors, or Wind; and ſomtimes Worms gnawing the Tunicles.

Sharp and malignant Humors, as green Choller, or black, ſalt Flegm, corrupt Matter ſent into the Stomach from an Impoſthume broken in the Liver or Breaſt, and all other ſharp Humors which may cauſe pain.

Alſo ſharp vapors coming from thoſe Humors uſe to cauſe this pain.

The Wind contained in the Cavity of the Stomach doth cauſe ſwelling and painful diſtenſion, eſpecially if it be reſtrained within its Tunicles, which makes a very ſtubborn Diſeaſe, and cannot eaſily be ſent out.

The Diſeaſes both of the Stomach it ſelf, and of the parts adjoyning, uſe to breed this pain, as any great diſtemper, either hot or cold, and eſpecially an Inflamation, and ſomtimes a Schirrus or other hard Tumor which maketh a heavy pain; as alſo Wounds and Ulcers of the ſame part, and ſwellings in parts adjoyning by wind or other waies, cauſe this pain by compreſſion of the Stomach.

Now theſe Humors and Winds which cauſe pain in the Stomach, either come from the whol Body, or ſome parts thereof. From the whol Body, in Feavers, or when the Body is filled with evil Humors. And from other parts, eſpecially the Liver, Spleen, and Brain: from the Liver there comes Choller; from the Spleen, Melancholly; and from the Head, ſalt Flegm.

Alſo this pain may ariſe from other extraordinary Cauſes not utual; as *Schenkius* obſerves from ſtones bred in the Stomach, *lib. 3. obſervat.* And *Fabricius Hildanus*, obſerv. 33. lib. 4. reports that a Woman had a piece of Rind or ruſty Bacon two yeers in her Stomach, wherewith ſhe was continually pained, and which after by taking a Vomit, ſhe threw up, and was cured.

The external Cauſes of this Diſeaſe, are either evil qualified, or of ſharp Nourihment, which of themſelves produce it, or things apt to breed Wind; or things taken in too great a quantity, which putrifie and turn ſharp; or things that are too hot, and breed much Choller: As alſo ſtrong, ſharp, deadly

deadly Medicines, either taken in too great a quantity, or not sufficiently corrected, and poyson.

The Diagnostick Signs are from the part affected, and the cause.

And first, when the pain is under the Cartilage *Ensiformis* or *Xiphoides*, it shews that the upper Orifice of the Stomach is affected: but that it is a true Cardialgia in the mouth of the Stomach, you may know more certainly when there is a most sharp pain from the exquisite sence of the part with such trouble and disturbance that the Patient cannot stay in a place, or in one posture, but often swounds and faintreth by consent and sympathy of the Heart with the Stomach, not only by neerness to it, but also by reason of the dissipation of the Spirits by the pain. Sometimes the Brain consents, by Reason of the famous Nerve which is in the Stomach, and the sharp vapors which are directly sent into the Head from thence, from whence come Cephalalgia, Hemicrania, Vertigo, and Epilepsie.

In other parts of the Stomach there are great pains, but they have not so great Symptomes, and therefore they are like the Chollick, differing only in place.

The Causes also are known by their proper signs. The most manifest are taken from the Excrements; for Choller, Flegm, Wind, or Worms, are voided at the Mouth or Belly, it is easie to conjecture that the Disease depends upon these Causes. But if no Humor be discharged we may know when Choller, Flegm, or Wind abounds by their proper signs; and the signs of Worms are to be taken out of their proper Chapter: As also the proper diseases both of the Stomach and parts adjoyning which produce this Disease, are known by their proper signs. The knowledg of the Humor causing this pain, is also taken from the time of its coming, encrease, and cessation. Some are troubled most violently before meat, and this shews that Choller is predominant, which is stirred in time of emptiness, and drawn to the Stomach, and made more sharp. Some are pained presently after meat, because the raw biting Humors, which before were quiet, and fixed to the Tunicles of the Stomach, are moved when Meat is taken, or they which were in the bottom of the Stomach, are raised up, and disturb the mouth of the Stomach. Others are pained in time of Concoction, because sharp gnawing vapors arise from the Matter, causing the Disease from the heat encreased in the Stomach in time of Concoction. Others are pained four or five hours after meat, because it is corrupted by evil concoction, and so gnaweth the Stomach. Some are worst after sleep, and that comes from a Catarrh from the Head in the time of sleeping, which being heaped up in the Stomach, produceth pain afterwards. Sometimes the pain is appeased after Meat, because the sharpness of the Humors is qualified by the sweetness of the Meat.

As for the Prognostick, it is most certain that Cardialgia is more dangerous than any other disease of the Stomach by reason of the exquisite sence of the Mouth of the Stomach, and its great consent with principal parts.

The danger is more or less, according to the malignity of the Cause, and the vehemency of the symptomes.

A continual acute Feaver joyned with a great pain of the Stomach, threateneth great danger; as *Hippocrates* saith, Aph. 65. Sect. 5. *In Feavers, if there be great heat about the Stomach, and Cardiogmos, it is evil*: for it signifieth that there is a great Inflamation of the Stomach, or abundance of bad Humors contained therein.

The pain of the Stomach coming from Worms or Wind, is commonly least dangerous, because the Cause is not so bad, and not fixed to the part. But sometimes from Worms gnawing in the Stomach, great Symptomes happen, of which the Patient suddenly dieth.

So when the distemper which begets wind, is stubborn and habitual, it is not without danger, for it turneth to a dry dropsie; *Hippocrates*, Aphor. 11. Sect. 4. In a Cardialgia, coldness of the extream parts signifieth death at hand.

The Cure of this Disease is to be varied according to the diversity of the Causes. If it come from the Diseases of other parts, you must cure them. But if the Cause be in the Stomach alone, the pain comes either from wind, or sharp Humors and Chollerick, or from Inflamation, Impost hume, or Ulcer.

That which comes from Wind is to be cured by Medicines that discuss and evacuate that flatulent Matter, as also the flegm from whence it comes.

And first you must give a gentle Emollient Laxative Clyster, and presently after another Carminative, that is, expelling wind, and discussing, of the Decoction of Origan, Calamints, Penyroyal, Rue, the lesser Centaury, Annis seeds, Fennel seeds, Carrots, and Cummin seeds, and the like: In which dissolve Benedicta Laxativa, Oyl of Dil, Rue, and Honey of Rosemary.

If the pain continue, you must make a Clyster of equal parts of Sack, or Hippocras, Oyl of Rue, or of Nuts, with two ounces of Aqua vitæ.

Or make a Clyster of white Wine with Oyl of Juniper, or eight drops of the Chymical Oyl of Cinnamon or Cloves, which doth Miracles.

Then foment the Stomach with this:

Take of *Cypress Roots, Galangal, Calamus Aromaticus, of each one ounce: Mints, Origan, Penyroyal, Marjoram, Hyssop, Sage, of each one handful: Annis, Fennel, Caraway, and Carrot seeds,*

seeds, and Bay berries, of each half an ounce: Chamomel, Melilot, Rosemary and Lavender flowers, of each one pugil: beat them, and slice them: put them into two bags, and boyl them in Sack; then squeeze them, and apply them one after another to the Stomach and all the Belly.

When the Matter is not so cold, this Fomentation following may be prepared, which is highly commended by *Forestus*, because it hath presently cured when other things failed.

Take of *Althæa Roots half an ounce: red Roses, Chamomel Flowers, and tops of Wormwood, of each one handful: Boyl them in common Water, and Chamomel Water, to one pint and an half, adding in the end a little Rhenish Wine, Rose Water, and Vinegar. Make a Fomentation.*

After Fomentation, anoint with Oyl of Rue, and Dill mixed with Aqua vitæ, and a little Chymical Oyl of Sage, or Cloves.

After the anointing, apply a Plaister of Bay-berries, or instead thereof a Cataplasm of Honey and Cummin seed.

While these are doing, if there be loathing, you may provoke vomiting gently, or give a Purge against flegm.

After Purging give Oyl of bitter Almonds newly drawn, mixed with white Wine, or Hippocras mixed with Aqua Clareta, or Cinnamon Water.

This following Julep is most admirable to asswage pain, discuss wind, and strengthen the Stomach.

Take of *Wormwood, Centaury the less, and Agrimony, of each half a handful: boyl them to five ounces, and ad to it being strained, one ounce of Sugar. Let him take it two mornings together.*

Amatus Lucitanus commends highly the distilled Water of Chamomel flowers as a most excellent Remedy to asswage the pains of the Stomach and Entrals, of which you must give three ounces warm. Or in the defect of that, you may make a Decoction of Chamomel flowers, which is so much commended by *Forestus*, who saith that he cured a Merchant with this only Decoction, once only given, of great pain of his Stomach, which made him to roar; which when he had drunk off, he belched, and fell into a sweat, and all his pain vanished, as by an Inchantment, so that he needed no other help. You may also make a Vomit at the beginning of the disease, which by evacuation may abate the pain, of this Decoction, made with Dill seeds, or Agarick, or the Roots of Asarabacca, dissolving therein, Oxymel, Syrup of Vinegar, or of Roses Solutive.

Galen teacheth that a Cupping glass applied to the Stomach, doth presently take away pain. But you must use this Caution, That no crude Humor, or very little, lie in the Stomach, otherwise the pain will be encreased.

Also you may with good success apply Bread hot from the Oven, cut in the middle, either by it self, or sprinkled with Spices.

Lastly, If the pain continue violent, you must use a bath of the Decoction of mollifying Herbs that are hot, which is most safe and powerful, for it takes away the pain by discussing the wind, and sending it forth by the open pores, which it will better do, if you give some discussing Medicine to the Patient while he is in the Bath; for both internal and external helps concurring, the work will be done.

The Bath must be very hot that the wind may be the better discussed, and the thick Humors melted.

If by reason of the vehement pain, Clysters can neither be given nor retained, you must give a Purge in the Bath, and let him stay therein an hour, or half an hour, till the power of the Medicine touch the Stomach.

Sometimes when the violence of the pain threateneth danger, you must give Narcoticks, which being wisely given, bring wonderful effects.

Some mix Narcoticks with their Purges that the pain may be allayed, and the Matter evacuated: such as the Medicine of *Elidæus* commended by *Forestus*, made thus:

Take of *Diaphœnicon half an ounce: Philonium Romanum two scruples: with the Water or Decoction of Chamomel make a Potion.*

After the pain is gone, let them who are subject to this Disease, be purged once or twice in a month, to take away the immediate cause of wind. And let them use strengtheners, such as were prescribed in the Cure of Concoction hurt.

That pain which comes of Choller, is to be cured by the evacuation thereof, with a gentle vomit or Purge, or with frequent Clysters that are emollient, not sharp or hot.

Afterwards, qualifie the sharpness of the Humors with cooling Juleps that thicken, with Emulsions of the great cold Seeds, new Milk, new Oyl of sweet Almonds, Yolks of Eggs, and the like.

In the mean while omit not Opiates, and other strengtheners prescribed in the former Cures.

And at last, when need requireth, use Narcoticks.

Apply outwardly a Cataplasm of Bread and Milk, with yolks of Eggs, and Saffron.

Or

Or Bread from the Oven broken in the middle and dipt in Vinegar.

Or Foment the part with the Decoction of Chamomil-flowers, Violets, and Water Lillies, or which is beſt, put the Patient in a warm Bath, for that is moſt proper.

After the pain is gone leſt it ſhould return, let the Patient Purge twice every month, and let the hot Diſtemper of his Belly be corrected with a Cooling Diet and Convenient Remedies.

That Pain which comes from Inflamation, Impoſthume, or Ulcer, may be Cured with the Remedies Preſcribed in the following Chaprer.

Chap. II. *Of the Inflamation, Ulcer, and Impoſthume in the Stomach.*

ALthough al kinds of Tumors may ariſe in the Stomach as wel as other parts, yet we wil ſpeak here only of a Phlegmon or Inflamation, which is moſt uſual; the other happen ſeldom, and may be Cured by the ſame Method with the Tumors of other internal parts.

The Inflamation of the Stomach is a preternatural Tumor coming of Blood which is ſent into the ſubſtance of the Stomach and its Membranes by the Veins derived from the branches of the Vena Porta.

This Blood is either pure and makes a proper Phlegmon, or mixed with Choller, Flegm, or Melancholly, and makes a Phlegmon Eryſipelatous, Oedematous, or Schirrous.

The External Cauſes may be many, al that inflame the Blood, as hot meats, wine, or al that can drive it to the part; as a blow upon the belly, eſpecially when it is ful; to which you may ad thinggs that are very ſharp and very hot, as Cantharides, ſublimate.

The ſigns of this Diſeaſe, called Diagnoſtica, are a great Pain, burning, pricking, diſtending and beating, reaching to the back; you may feel a Tumor, and ſomtimes ſee it, the ſhoulders are drawn downwards; the breathing is difficult, as alſo ſwelling and belching, ſomtimes blood is vomited; there is a moſt burning Feaver, with moſt greivous Symptomes.

If the Inflamation be pure only from blood, it is ſomwhat gentler; but if it be with Choller called Eryſipelas, there are greivous Symptomes, and the febris called Lipyria in which the exterior parts are cold, and the internal burn, and there is an unquenchable thirſt; ſuch a kind of Feaver uſeth to be in an Eryſipetous inflamation of the inteſtines.

Like to this Inflamation of the Stomach, is that which is in the upper part of the Liver by which the Stomach is covered or in that part of the belly which lieth upon it; which is only diſtinguiſhed by the deadly Symptomes, for then the Stomach hath the moſt deſperate.

From what hath been ſaid is eaſie to Prognoſtick and to pronounce this Diſeaſe to be for the moſt part deadly.

But that is moſt Dangerous which is over the whol Stomach, or its upper part, or which is like to an Eryſipetas.

Galen 3. Prorrhet. ſhews, That much Loathing and Rumbling of the belly, is evil: For it ſhewes that evil Humors do ſtick cloſe to the Tunicle of the Stomach, and pul them to provoke Expulſion.

If the Inflamation do not kill, nor is diſperſed, it turns to an Impoſthume, which is known by the mitigation of the Pain and the Feaver, while the Tumor remaineth.

After the Impoſthume is broken there remaineth an Ulcer which is known by voiding of Matter by Vomit and Stool.

But an Ulcer is produced in the Stomach, not only from an Impoſthume, but from other Cauſes which we ſhal here reckon up, leaſt we ſeem defective in the Theory.

The Cauſes of Ulcers in the Stomach, are either Internal or External.

The Internal are ſharp Humors bred in the Stomach, or ſent thither from other parts, as yellow Choller, or black, or ſalt Flegm.

The External are ſharp Medicines that Corrode, or Poyſons, and Wounds of the Stomach not wel Cured, which turn into Ulcers; as alſo the breach of ſome great Veins which could not wel grow together, after much Vomiting of blood.

An Ulcer bred in the Stomach is known chiefly by Matter which is caſt forth by Vomit or Stool, to which principal ſign there are others to be added: Firſt there is perceived in the belly a pricking pain joyned with burning, eſpecially when any thing is taken that is ſtrong in quality, either ſharp, ſalt, or ſowr, or very hot, or cold: there is alſo no Appetite, ſtinking belching, and a conſtant lingring Feaver.

The Prognoſtick is alwayes deadly, except the Ulcer be very little, and only in the ſuperficies,

and without a Feaver. For the Membrane of the Stomach being ulcerated, being a Spermatick part, will hardly grow together again: the Nourishment will not be well concocted in a Stomach ill affected, but will be thrown out before concoction, and so rend the Ulcer. Moreover, Medicines do little good because cleansers which are required for cure of Ulcers increase pain; and dryers which also are required, are continually hindred by the Meat and Drink, and Chyle, and other Humors which continually are in a weak Stomach.

The Cure of the afore said Diseases, is several.

And first, the Cure of Inflamation is to begin with Blood-letting often in both Arms, as the strength will endure. And although by reason of swooning and coldness of the extream parts, the strength seem at first to be impaired, yet because it comes from oppression, it requires evacuation, and therefore blood-letting must not be denied.

Moreover, the opening of the Hemorrhoids, if the Patient be used to that evacuation, doth revel Blood from the Stomach. Also Cupping-glasses both dry, and with Scarrification to the Shoulders, Back, and Buttocks, with Ligatures and Frictions of the extream parts, and heating of them (because they are usually cold) with hot cloathes, and anointing with Oyl of Flowerdeluce, and Spike, and other hot things are very good.

We disallow Purges in this case, because they trouble the Humors, and draw them to the part affected.

But *Avicen* commends the Decoction of Tamarinds, or half an ounce of Cassia dissolved in Whey, or Endive Water if it be given every day to the seventh day, because they purge not by attraction, but by mollifying, mitigate sharpness, and asswage pain. But it is better in the beginning to abstain from all Purges. After the seventh day is past, when there appear some signs of Concoction and declination, you may give a Purge of Rhubarb one dram, with one scruple of red Sanders infused in Borrage Water, adding one ounce or two of Syrup of Roses, that the filth which sticketh to the part may be brought forth more powerfully.

In the mean while, you must every day give Emollient, Cooling, and Lenitive Clysters, such as these:

Take of *Chicken Broth, or the Decoction of Mallows. and Violets, of each one pint: Cassia new drawn, one ounce: Oyl of Roses and Violets, of each two ounces: Sugar one ounce and an half: With two Yolks of Eggs make a Clyster.*

You must give altering and strengthening Medicines at the Mouth, they may be the same which were propounded in the Cure of the Pain of the Stomach from a Cholerick Humor.

But the Syrup of Water Lillies, and of the Juyce of Purslain, are peculiarly good, especially in the beginning, because they supply the place of Repelling Medicines.

Also Emulsions made of the four great cold Seeds, and white Poppy Seeds are good, for they asswage pain and heat. As also these following Juleps.

Take of *Rose Water three ounces: Plantane Water two ounces: the Juyce of Sorrel and Pomegranate Wine, one ounce and an half: Sugar of Roses one ounce: Boyl them a little, and strain them. Let him take two ounces twice or thrice in a day.*

If the pain be great, you may give the Syrup of Poppy.

Let his Drink be Barley Water with Syrup of Violets taken cold.

In the progress of the Disease, you must mix other Medicines with the aforesaid, which may help to dissolve. To this end you may prescribe these following Juleps:

Take of *the Syrup of Water Lillies, Apples, and of the Juyce of Purslain, of each one ounce: Syrup of Sea Wormwood half an ounce: Lettice, Sorrel, and Fennel Water, of each three ounces: the pouder of Diamargariton frigid one dram: Make a Julep for three Doses to be taken twice in a day.*

To these you may ad restoring Opiates, Narcoticks, and the like, all which are to be varied many waies, according to the Judgment and Wisdom of the Physitian.

Turpentine washed with Wormwood Water, if it be given twice or thrice doth either dissolve or maturate the Impostume of the Stomach.

Let this following Fomentation be applied in the beginning.

Take of *Sorrel Roots two ounces: Endive, Succory, and Mallows, of each one handful: Lettice, and white Poppy seeds, of each three drams: white and red Sanders, of each half a dram: Violets, and Water Lillies, of each one pugil. Make a Decoction, adding a little Rose Vinegar. Let the Stomach be fomented warm therewith.*

Or make one with the distilled Waters of Lettice, and Water Lillies with a little Vinegar, and Pouder of Triasantalon.

After fomenting, let the part be anointed with Oyl of Roses and Violets mixed, or with this following:

Take of *Oyl of Roses one ounce and an half: Oyl of Violets, and Rose Vinegar, and of the Juyce*

Juyce of Sowthistle, of each half an ounce: Boyl them to the consumption of the Juyces; then ad of red Sanders one dram: red Roses half a dram: Lavender and Camphire, of each half a scruple: as much Wax as will make an Oyntment.

Cataplasms in the beginning are not good, because they burden the part with their weight, and by retaining the heat, encreate the Inflamation.

In the declination, when the Tumor is resolved, which is chiefly to be desired; you may apply a dissolving Fomentation, made thus:

Take of *Flowerdeluce Roots two ounces: the Leaves of Mints, Marjoram, Penyroyal, Sea Wormwood, of each one handful: Annis and Fœnugreek seeds, of each two drams: Grains of Kermes one dram: the flowers of Stœchas, Rosemary, Chamomel, of each one pugil: Make a Decoction, adding in the end a little white Wine. With this foment the Stomach.*

After tomenting, anoint the part with Oyl of Wormwood, Nutmeg, Spike, and the like; of which you may make an Oyntment with a little Wax and Pouder, Orris Root, or Cinnamon. But Emplasters and Cataplasms, because they burden the part with their weight, are not here good.

But if the Tumor tend to Suppuration, foment the part with the Decoction of the Flowers of Chamomel and red Roses: Then apply this following Cataplasm:

Take of *Althæa Roots two ounces: Brank Ursine, and Roses, of each one handful: Boyl them well, and beat them together: then ad of Barley meal, Lin-seed, Fœnugreek and pouder of Chamomel, of each half an ounce: white and red Sanders, of each two drams: with Oyl of Roses, and Chamomel. With a little Hens Grease make a Cataplasm often to be renewed.*

After the Impostume is broken, let the Ulcer be cleansed with Hydromel, given in a smal quantity: To which you may ad the Manna of Frankinsence, according to *Galens* Precept. Or give it with Barley Water with Sugar of Roses in the beginning, in time of heat.

When the Ulcer groweth old, of what Cause soever it come, either from sharp corroding Humors, or burning Medicines, or Poyson, Broths of cool Herbs, and drying of Barley, Almonds, and Sugar of Roses, or new Milk with Sugar, and a little Honey, are very good. At length, Chalybeate Milk and Iron Water for ordinary drink; or Water wherein a piece of Bole-Armenick, or Terra Sigillata hath been steeped, is very excellent. To which you may put a little sharp Wine, if there be but little heat in the part.

Then give this Apozeme:

Take of *Barley one pugil: Scabious, Agrimony, Burnet, and Maiden-hair, of each half a handful: Melone seeds two drams: red Roses dried, one pugil: make a Decoction to one pint, in which dissolve three ounces of Syrup of dried Roses. Make an Apozeme for four doses to be repeated often.*

Also the Decoction of China, is excellent for internal Ulcers, when there is no Feaver, taken twenty daies, or more, sweating gently, for so the Ulcer will be dried by degrees. But if you fear a consumption, boyl the China Root aforelaid in Chicken Broth, or Pidgeon Broth with the aforesaid Herbs, and Barley made clean.

In an old Ulcer, the drinking of Mineral Waters, either of Vitriol, Iron, or Allum, for a Month together, are very good.

In the whol time of the Disease to keep the Stomach clean, use gentle Purges, as Rhubarb, Tamarinds, Myrobalans, Syrup of Roses, and Diacatholicon, taken once in a week.

Lastly, To heal up the Wound, use these following:

Take of *Bole-armenick, Terra Sigillata, red Coral, and Blood-stone wash'd all in Rose Water, of each one dram: Sanguis Draconis, Gum Arabick and Traganth, of each half a dram: white Poppy seeds bruised and parched, Hypocistis, Frankinsence, and Sarcocol, of each one scruple: Sugar of Roses one ounce: Make a Pouder, of which take a dram in Plantane Water, or Conserve of Roses every day.*

Or make an Opiate of the same Pouder with Conserve of Comphry and Roses, Syrup of Quinces, and Myrtles. Or you may make Troches of the same Pouder, with the Mucilage of Fleabane seeds, or Gum Traganth. All which the Patient may use by turns, lest he grow weary of the same.

Outwardly, to close the Ulcer, you may apply to the Stomach, a Fomentation of the Decoction of Wormwood, Roses, Pomegranate peels, Galls, Pomegranate Flowers, Myrtles, Frankinsence, Mastich, or the like. And lastly, anoint the part with an astringent Oyntment, or apply an astringent Emplaster.

The End of the Ninth Book.

THE TENTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Intestines, or Guts.

The PREFACE.

THE Perfection of all Nourishment consists in these Three Operations, to Ingest, Digest, and Egest; that is, To take in, Concoct, and send forth: The first respects the Appetite: The second the Concoction, & belongs to the Stomach: But the third respects the Intestines, whose office of Egestion or sending forth being moderate, and according to the rules of Nature brings great benefit to the whol Body: On the contrary, if it be defective as in the binding of the Belly, or abound as in divers Fluxes, there arise divers greivous Diseases: Moreover, the reteining of superfluous things doth cause Chollicks, Iliacks, and Hemorrhoids: And finally putrifactions in the Guts doth not only produce Fluxes, but Worms: That all these may be severally Explained, this Book shall contain Eleven Chapters: The First is of the Chollick: The Second of the Iliack Passion: The Third of binding of the Belly: The Fourth of Lienteria or Cœliack Diseases: The Fift of Diarrhœa: The Sixth of Dysentery: The Seventh of Tenesmus: The Eight of the Hepatick Flux: The Ninth of the Worms: The Tenth of the Flux of the Hemorrhoids: The Eleventh of the pain of the Hemorrhoids.

Chap. 1. *Of the Chollick.*

THe Chollick takes its Name from the part affected which is the Gut called *Colon*: which is long and winding, and ordained for receiving the Excrements of almost al the Body; these Excrements retained too long, use to cause this pain.

Therefore the Causes of the Chollick are excrementicious Matter, which by distending, pricking or corroding can make a Solution of Continuity, and these are either Winds or Humors.

Winds are bred of Crudities, or a cold Distemper of the Stomach or Intestines; and if they be not

not ſent forth by reaſon of the hard excrements or other things that obſtruct the Inteſtines, they are in great plenty ſhut up in the Guts, eſpecially the *Colon*; and make a very violent pain.

Alſo groſs Humors, Cold and Flegmatick, being faſtened upon the Tunicles of the Guts cauſe the ſame pain both by gnawing, if they are ſharp or ſalt; as alſo by cooling the part, which by conſequence muſt ſuffer Conſtriction and Divulſion, as *Galen* ſpeaks of himſelf, That having had a great Fit of the Chollick did void glaſsy Flegm that was actually cold; and by producing Wind which is eaſily raiſed from a groſs, ſlimy, and ſlow Humor, by a weak heat.

Laſtly, Chollerick and ſharp Humors; as alſo Melancholick and ſowr by pricking and twiching the Guts, make theſe pains: but we may doubt in the action of theſe Cauſes how the Chollick ſhould be ſometimes more violent, ſometimes more remiſs, ſince the ſame matter remaineth in the Inteſtines? To which Doubt we thus Anſwer, That the matter doth ſometimes lie quiet, and then it cauſeth none or very little pain; but ſometimes it is moved and ſtirred up by divers Fermentations which happen among the Humors, as in an Epilepſy, the fits of the Mother and Agues.

But you muſt obſerve diligently that thoſe Winds or Humors do not only remain in the Cavity of the Guts, for then were they eaſily excluded by evacuating, cleanſing, and carminative Medicines, but for the moſt part they are fixed to the very Coates of the Guts, whence it comes that they are not ſo eaſily taken off; but they make a long and a ſtubborn Diſeaſe which wil not eaſily be cured: So thick Flegmatick and Melancholick humors to flow by degrees through the veins of the Guts into their ſubſtance, and do not preſently cauſe pain; but til they ſo encreaſe that they provoke nature to expel them, and to being moved they cauſe pain; or ſend out Vapors which being included in the Tunicles of the Inteſtines, do ſtretch and extend them, and finding no paſſage, cauſe a long pain. And Choller being after the ſame manner ſpread and ſucked into the veins of the Guts and the Tunicles thereof doth ſtir up ſharp pains which uſe to be long, becauſe the Choller is very hard to be pulled from the ſubſtance of the Guts.

There is another kind of Chollerick Chollick, which turns into a Palſie, not known to the Antients, which comes of a Chollerick Humor, not in the Gut Colon as the former, but ſuddenly ſent into the Membranes of the Abdomen, and it is carried thither from the Cyſtis, or bladder of Gall, or the Meſentery in the Criſis of continual Feavers, or from great anger, or ſome other external Cauſe, when by reaſon of Obſtructions it cannot be ſent by the common paſſages, but by a prepoſterous motion it is preſently ſent to the aforeſaid Membranes of the Abdomen, hence comes a cruel pain like that of the Chollick, which neither by Clyſters, Fomentations, or other Medicines can be Cured; but continueth many Months, by which means the body conſumeth, ſometimes it is like an intermitting Feaver, ſometimes and often like a continual lingring Feaver: and at length when the pain begins to ceaſe, there is a Palſie, by reaſon the Humor gets by degrees into the back by the Membranes of the Abdomen: This Palſie doth trouble the upper parts moſt; but the Thighs and Legs commonly are pained, in ſome they are wholly reſolved and made numb, becauſe the Choller being light flyeth to the upper parts: Sometimes it gets into the Brain, and begets Epileptick Convulſions, from whence death commonly enſueth.

There are other Cauſes of the Chollick, but leſs uſual; namely, Stones bred in the Guts, and knots of Worms which ſtop them: The compreſſion of the Guts from Tumors in the adjoyning parts, or narrowneſs by reaſon of Inflamation, and other Tumors of the Inteſtines, or Contortion, or twiſting of them by reaſon of Wind which is the way to the Iliack Paſſion; ſometimes alſo the Matter cauſing the Chollick is Poyſonous and Malignant, and makes a Peſtilent Chollick; as *Paulus Ægineta* reports, That a Peſtilent Chollick in Italy infected moſt of the Roman Provinces. Finally al hard Bodies by Obſtructing and Diſtending the Guts may make a Chollick, as ſtones bred there, many Cherry-ſtones ſwallowed, hard Cheeſe, and the like: *Platerus* reports, That a certain Governor long laboring of the Chollick with Convulſions, after the uſe of Clyſters, voided a great quantity of hard Cheeſe which had a long time ſtuck in his Guts, becauſe before his Sickneſs he had eaten immoderately thereof.

The External Cauſes are Cold Air, which conſtringe and indurate the Belly; or too Hot Air, by which the Excrements grow hard, and looſe their moiſture; the uſe of meat and drink not agreeing with the Conſtitution; as raw Fruits, and binding; groſs meats, and hard of digeſtion; too much reſt, and immoderate ſleep; unſeaſonable exerciſes, immoderate venery; and other External Cauſes which diſturbe the Concoction of the Stomach.

The Knowledge of this Diſeaſe generally is eaſie: For firſt the pain is very ſharp, for if it be light it cannot be called a true Chollick from the Opinion of *Galen*, lib. 6. de loc. aff. cap. 2. And it is ſometimes moveable, ſometimes more in one place than in another: ſometimes in the region of the Liver, ſometimes of the Spleen, Stomach, Reins; ſometimes above, ſometimes beneath the Navel, and oftentimes it is moſt upon the left ſide; in which, as *Bauhinus* firſt obſerv'd, there is a little ſtreighneſs; for when the Excrements in the upper and wideſt part of the Colon grow into hard lumps according to its Capacity great, and then by Wind are driven into a ſtreighter part, they muſt needs paſs with much

much pain, in which Symptome the Chollick, and the Spleen, and the Stone, are not distinguished but by comparition of other signs; for somtimes the pain is like an Auger boring, or a Stick fastened, more fixed in some part. When the Stomach consenteth, there is vomiting of Flegm, Choller, that is green or the like. After Meat the pain is greater, because the Stomach being filled compresseth the Intestines. The Belly for the most part is bound, so that the Patient cannot so much as break wind, and if any thing be voided either naturally or by art, it is for the most part windy, and like Cowdung, with water at the top, because it is most Flegm which useth to be so. Somtimes the Belly is so bound that in the heigth of Pain, Purging Medicines that are very strong, will not work.

The Signs of the Causes are thus to be distinguished:

If the Pain come of Flegm, it is not so great, unless it be mixed with wind which cannot get forth of the places wherein it is contained: for then the pain is very great; somtimes in one part, as if it were bored through with a wimble or stick; somtimes in many, if the wind do remove, the Patient is better for hot, and worse for cold things. He used a Diet formerly which bred flegm, his water is somtimes more crude and white, not alwaies, which deceiveth yong unexperienced Physitians, and somtimes in a flegmatick and flatulent Chollick, the Urine will be yellow and reddish by reason of the extraordinary pain which doth inflame the Spirits and Humors contained in the Veins and Arteries. Which *Avicen* wisely observed, Fen. 13. Lib. 3. Tract. 3. Cap. 11. *Let no man be deceived* (saith he) *to think by the foulness, inflamation, and redness of the Urine, that therefore the Disease is hot; for that is common to all Urines.*

If the Chollick proceed of wind, there will be a stretching pain, and a swelling of the Belly: the Patient perceiveth a rumbling of the Belly, and much wind, and he is better when he breaketh it: he used a Diet to breed it, as unreasonable drinking of cold water, often use of Peale, Rapes, Chesnuts, Sallets, Fruits, and the like. And if the wind be contained in the Cavity of the Guts, the pain is movable, not in one place, and is somtimes greater. But if it be in the Coats and Tunicles of the Guts, the pain is fixed because the wind cannot move, and it is constant because it cannot get forth.

If the Chollick come from a sharp and Chollerick Humor, it is most grievous, pulling, and pricking, there is heat, thirst, and often a Feaver, the Urine is very Chollerick. It is worse for hot Meats and Medicines, and better for cold. By sending forth of Choller the disease is diminished, and there went before, a Diet breeding Choller.

The pains of other parts under the Navil, are easily distinguished from the Chollick by their proper signs, except the Stone, whose signs are so like with those of the Chollick, that very skilful Physitians have been deceived by them: As *Galen* himself was, as he confesseth 2. *de loc. aff. cap.* 5. when he was troubled with the Chollick, he thought that he had the Nephritis, and that a stone was fastened in one of the Ureters till the Humor was purged away, and the pain ceased; after which he found it to be the Chollick.

But by these following signs these two Diseases may be plainly distinguished, if they be well observed.

First, The Nephritis or pain of the stone, is fixed in the Reins, and comes from thence to the Testicles, according to the length of the Ureter: But the Chollick is movable, and girts about the middle of the Belly like a girdle.

Secondly, The Chollick encreaseth after Meat by reason of the compression of the Intestines from the full Belly: but the Nephritis encreaseth not, but rather decreaseth, because some of the Nourishment is carried to the Reins; which doth something asswage the pain.

Thirdly, In the Chollick, the vomiting is more vehement, and the Body is more bound, because the Colon lieth in the bottom of the Stomach, and the Intestines being stretched, or much provoked, do constringe themselves that they may expel what is noxious. But both the Symptomes are common to both Diseases, so that you can hardly know their intension and remission, because a strong Nephritick pain, may cause a greater vomiting and astriction of the Belly, then a weak Chollick.

Fourthly, In a Chollick there is more ease found after Evacuation than in a Nephritis.

Fifthly, In a Nephritis or the stone, the Urine is first clear and thin; afterwards there is a sediment, and at length sand and little stones are voided. But in the Chollick the Urine is thick from the beginning.

As to the Prognostick: The Chollick for the most part, if it be gentle and little, and not long, nor in one place constantly, but intermitting and not binding the Belly, is curable, and without danger. But if the pain is very great and fixed in one place, not intermitting, and if the Belly be bound that nothing can get forth, with great watchings, and if vomiting follow, hiccoughs, doting, and coldness of extream parts, with cold sweats, it is deadly.

A stubborn Chollick coming of sharp and Chollerick Matter degenerateth into other grievous Diseases, as Arthritis, Epilepsie, or Paralysis, which is most usual.

An

An Epidemical Chollick, which is contagious and peſtilent, is commonly deadly.

The Cure of this Diſeaſe is divers, according to the variety of the Cauſes.

And firſt, there is the ſame Cure of a flatulent and pituitous Chollick, which begins with an Emollient Clyſter, after which followeth one Carminative and diſcuſſing, as was preſcribed in the *Dolor Ventriculi*, from the like Cauſe, which muſt be repeated twice, thrice, or four times in a day, till the pain be gone; and if he go not to ſtool in one or two Clyſters, as ſometimes happeneth, you muſt give a ſharp Suppoſitory. In one of the aforeſaid Clyſters, you may do well to ad four ounces of the *Aqua Benedicta Rulandi.*

Or two or three drams of Coloquintida boyled in an Emollient and Carminative Decoction.

If Clyſters will not give eaſe, you muſt not ſtay too long upon them, but uſe ſome gentle Medicine. It hath been obſerved that when a ſick man had taken three Clyſters without benefit, that another Phyſitian came and gave but one ounce and an half of Manna, with two ounces of the Oyl of ſweet Almonds in the fat Broth of a Hen, and cured the Patient. But in a pain that comes from groſs flegm you muſt give ſtronger Medicines.

Afterwards, Fomentations, Oyntments, Baths, Emplaiſters, and the like, are good, which were declared in the Cure of the *Dolor Ventriculi* of the ſame Cauſe, to which you may ad ſome ſpecifical things, which are fit for this Diſeaſe.

Waſh the Guts of a Wolf in white Wine, then dry them in an Oven in an Earthen pot, till they may be poudered. Let the Patient take a dram thereof in white Wine, and he will be preſently cured.

Boyl fair Water, and ad to it the fourth part of Oyl, and ſome groſs Pepper; let him take three or four ſpoonfuls as hot as he can endure it, and the pain will be inſtantly gone.

Take of *the beſt Aloes one dram*: *Laudanum four grains*: *Diagridium ſix grains*: *Mix them and make ſix Pills gilded*: *Let him take them at a convenient time. They take away the pain after one hour, and then purge out the noxious humor.*

Inſtead of theſe you may give Diaphœnicon, and Philonium Romanum, as is preſcribed in the Cure of the pain of the Stomach. *Hipp. Lib. de intern. aff.* propoundeth a Purge of Purſlain, and Juyce of Poppies.

Six ounces of Oyl of ſweet or bitter Almonds, do aſſwage pain, and caſt the Matter cleaving to the Inteſtines downwards.

If you mix it with theſe things following, it will be better:

Take of *Oyl of ſweet Almonds, or Sallat Oyl for poor people, four ounces*: *Spaniſh Wine one ounce and an half*: *Syrup of Poppies one ounce*: *Mix them for a Potion.*

Alſo Oyl of ſweet Almonds mixed with Manna in fat Broth as beforeſaid, doth eaſe pain, and evacuate the Matter offending.

One dram of Annis ſeeds poudered and given in Wine, doth firſt aſſwage, and the ſecond time it is given, quite take away the pain; applying at the ſame time a Cataplaſm of Turpentine three ounces, laid on with Stuphes ſprinkled with Pepper and Sanguis Draconis finely poudered, of each one dram.

Galbanetum Paracelſi is good to diſcuſs the Humor if the whol Belly be anointed therewith. The deſcription is in *Crato* thus:

Take of *Gum Elemi, Ivy, Galbanum, Oyl of Bayes, of each equal parts*: *diſtil them in Sand with a Retort*; *keep the Liquors aſunder, firſt the Water, then the cleer Oyl, then the thick Oyl like Honey, which you muſt uſe firſt.*

Take of *Calamus Aromaticus one ounce*: *Galangal three drams*: *the outward yellow of the Orange peel four ounces*: *Cinnamon, Annis, and Fennel ſeeds, of each three drams*: *Cummin ſeeds ſix drams*: *Juniper berries green half an ounce*: *Bay berries three drams. Pouder them finely, and infuſe them in ſix pints of the beſt Spaniſh Wine in a hot place ſix dayes*; *then diſtil them in* Balneo Mariæ. The Doſe is one ounce after Evacuations.

You may with good ſucceſs apply to the Belly Gum Caragna, and Tacamahacha; but firſt let a great Cupping-glaſs be applied to the Navil.

Although you apply not the Plaiſters, yet you muſt not forget to cup; which as *Galen* ſaith, doth diſcuſs pain that comes of wind like an Enchantment.

If the Diſeaſe laſt long, you may cure it with a Decoction of Guajacum continued for many daies, Purging ſometimes, and giving often Clyſters. And if it come of glaſſy flegm, let Guajacum be boyled in Wine, as *Amatus Luſitanus* uſed it with good ſucceſs, *Curat.* 32. *Cent.* 1.

After the pain is allayed, uſe an Apozeme to purge flegm for the carrying away of the reliques, or inſtead thereof, the Decoction of an old Cock made with inciſing, attenuating, and purging things. Or that excellent Julep preſcribed in the Chollick of the Stomach.

A Chollerick Chollick is cured by Emollient Clyſters, and ſuch as temper the acrimony of the Humors.

Let

Let the Belly be Fomented with an Emollient Decoction, which is Anodine; or which is better, make a Bath of the same.

Also Cataplasms made of Barley and Linseed Flower, boyled in Oyl of Chamomil, applied to the bottom of the Belly are good.

As also a Cooling Epithem to the Liver, made thus:

Take of *the Juyce of Endive and Succory, of each half a pint: the Juyce of Lettice, and Rose-Vinegar, of each two ounces: mix them and make an Epitheme.*

Give Juleps of Poppy, Lettice, Endive, and Sorrel Water, with Syrup of Violets, Apples, and Lemons.

If the Pain be urgent, come to Narcoticks.

When the pain is mitigated, give the infusion and expression of Rhubarb in Succory Water with Syrup of Roses, often, til al the filth be evacuated.

If this be too gentle to eradicate the Disease, give Mercurius Dulcis, which being sometimes given with some Purging Diagrediats, doth finish the Cure.

They who are not to take Diagredium, may take Mercurius dulcis alone made into a Pill with conserve of Roses, drinking after it the infusion of Senna with Rhubarb, adding a little Manna and syrup of Roses.

After this you may give your sharp Vitriolated Waters.

When the pain is violent, fly to Baths and Laudanum, to which you may sometimes mix Purgers, but in a great quantity; because their force wil be hindered by the Laudanum.

Galbanetum Paracelsi, although hot, is fit to discuss the Humor if al the Belly be anointed therewith: it is described formerly.

Sometimes Blood-letting is good where there is fear of a Feaver by the heat of the blood: and if the Feaver be begun, do it presently.

When there is a great Thirst, give cold Water. as *Galen* teacheth, lib. 12. meth. cap. 7. And *Amatus Lusitanus* saith, That he Cured one presently with it: And *Septalius* shews in Two Stories in the Seventh Book of his *Practical Animadversions*, That he hath given the same, and taken it with very good success.

For the Cure of that Chollick which turneth into a Palsie, after the Belly is loosened with many Clysters, and the first wayes being made open by a Purge, put the Patient into a warm Bath made of an Emollient Decoction, twice, thrice, four, or five times in a day, that the sharpness of the humors may be allaied, and the pores of the Membranes opened.

The day after let the Humor be Purged with a fit Medicine; then let him be bathed again, and if his strength wil endure it, let him do it every other day, til the humors are Purged and the pain gone, and the Patient Cured.

In the mean time let the Clysters be continued, especially those made of Milk are best to asswage pain, to which you may put Cassia, Oyl of Violets and Lillies.

Let the Belly be often anointed with Oyl of Chamomil, Dill, sweet Almonds, Lillies, or with fresh butter.

Then let him use Whey and sharp Waters.

And Lastly, When the Disease is of long continuance, you may use those things which were prescribed for the Cure of Hypochondriak Melancholly.

Nor must you omit Phlebotomy from the beginning of the Disease before Purging, and it must be often repeated if the Blood be evil, or the pain come of a Catarrh any wayes.

Finally, Al the Medicines mentioned in Chollerick Chollick may here be applied, which if it avail not, some Physitians use this following Potion, which though it be sordid and not fit for men wel educated, yet they say it Cureth presently.

Take of *Horse-dung one ounce: break it in pieces, and infuse it in one pint of Poppy-Water with eight or ten drops of Spirit of Vitriol: strain it gently, and divide the Liquor into three Doses, for the time of the violent pain.*

But if it turn into a Palsie, you must anoint the Spina or back Bone and the Paralytike parts with a Resolving and a Nerve Corroborating Balsom if there be no Feaver; but if there be, bind Wool dipt in Oyl, or some digesting Oyntment, to the Paralytike parts, taking heed of Cold, by which the humor wil be fastned to the parts, and the breathing forth of it hindered.

Galbanetum Paracelsi is best, if it be applied to the parts aforesaid, and the Navel.

CHAP.

Chap. 2. *Of the Iliack Passion.*

ILEOS, or *Iliack Passion*, took its name (as some say) from the Gut *Ileum*, which chiefly is Affected in this Disease; although the other thin and sometimes thick Guts are capable of the same: Or, rather from *Eilestai*, which signifieth to be rowled and girt about; therefore the Latins call it *Volvulus*, or *Convolvulus*, because the Guts in this Disease seem manifestly to be rowled about, and to be moved upwards: it is also called *Kordapsos*, because the Guts, if you lay your hand on them, seem to be like a stretched or twisted cord.

The *Barbarians* cal it *Miserere mei*, because it is a miserable Disease and commonly deadly, and therefore needs divine Commiseration.

This Iliack Passion is a preposterous motion of the Intestines, in which the Belly is alwayes bound; and the Excrements which should be carried downwards, are brought to the Stomach, and cast out by vomiting.

It is known that the Intestines have a natural motion by which the Chylus and Faeces are by degrees carried downwards, which is called *Peristalticus*; this motion is by the Orbicular and Transverse Fibres which contract the Intestines, and is compared to the motion of Earth-worms which move the parts of their bodies successively. And this motion is sometimes inverted by preternatural Causes, as when the Fibres of the Intestines which ought to be contracted from above down-wards, are contracted upwards; and whatsoever is in the Guts is not sent towards the Belly but towards the Stomach, and then is this Iliack Passion: We observe something like this in Vomiting; for when the Fibres of the Oesophagus contract themselves from the upper part towards the Stomach, the meat is swallowed down; but when by an inverted order they contract themselves from the part beneath upwards, there is vomiting. This Peristaltick inverted motion comes from the vehement stirring up of the Expulsive Faculty of the Guts, which when it cannot throw down-wards the superfluous Excrementitious matter, doth by a violent motion cast it upwards. This motion is sometimes so violent, that not only Chyle, and Wind, and Excrementitious Humors, but the Faeces also, and Excrements which should be sent out by the Anus are thrown forth by vomiting; So that Clysters and Suppositories also are snatcht up and vomited out: So *Matthew de Gradi* reports of a Girle of twelve yeers old, who in this Disease for three dayes together, did not only vomit up Dung and Clysters, but also a long Suppository a short time after it was administred unto her; and when another Suppository was tyed to her Thigh, that was presently broken off and vomited up with a piece of the Thred at it: And when Thirdly, a Suppository was tyed with four strong Threds as before, that also was broken off and Vomited up with part of the Threds: And at length when the Mother, as desired by the Physitian, to administer another, it was drawn upward with so much violence, that she was constrained suddenly to draw it out least it should be again Vomited up. There are the like stories in Authors, which for brevity take we omit.

This stirring up of the Expulsive Faculty of the Guts comes from divers Causes: The chief is Obstruction; therefore whatsoever doth so violently obstruct the Guts that nothing can descend, doth beget this Disease: for after the Faculty hath long labored to throw out superfluities the ordinary way, and is frustrate of her intention; desiring to satisfie the necessity of exclusion, she takes another Course, and by a preposterous motion drives them upwards, and vomiteth them out.

The Causes obstructing are hard Dung long retained, grosse vapors gathered in abundance into the Guts and violently distending them; Inflamation, and other great Tumors, which wholly shut up the internal Cavities of the Gut, and the circumvolution of it, so that it is as it were tied in a knot, which often happeneth in a Hernia or rupture, and also in the Chollick, after which often follows this *Ileos*, because the Intestines being stretched with wind, do rowl together, and sometimes knit a knot.

The more unusual causes which do so provoke the expulsive faculty that are constrained to alter their motion, are great Ulcers, or sharp Humors which twitch the Guts; for when the faeces or other Humors going downwards, do touch the ulcerated part, they so prick it that the faculty is provoked not to suffer so noxious a thing to pass, but driveth it upwards with violence; which motion the other Intestines stirred up by sympathy, do follow till the noxious Matter goes to the Stomach, which following the same Motion, by the help of the aforesaid faculty, drives it forth by vomit.

The Signs of the Iliack Passion are partly Common to those of the Chollick, and partly proper.

The Common Signs are, pain in the Abdomen, swelling and puffing up of the Belly, a bound Belly, loathing of Meat, Nausea, Vomiting, want of Rest, difficulty of Breathing, and Pissing.

Those which are Proper and peculiar to this Disease, are a sharp pain and most violent, puffing up

and very violent distension, an eminent hard tumor in the Hypogastrium, a toral suppression of seege, so that nothing is voided that way. In progress of the Disease, there is irregular vomiting, first of Choller, then of Flegm, and Chylous Matter, and at length of dung, or rather of a Matter like it, of corrupt and stinking Meat, for the fæces are seldom sent upwards, when they are neer death, there is abundance of cold sweat, refrigeration of the extream parts, trembling of the Heart, disturbance and fainting.

Galen in Comment. Aph. 10. Sect. 7. affirms that the proper and inseparable sign of this Disease is not to go to stool at all. But *Hippocrates* seems to affirm the contrary, 3. Epid. Sect. 2. Text. 7. in an History of a Woman thus affected, which dwelt at *Tisamen*, saying there were thin, few, and crude dejections. To which difficulty we answer, That in the beginning of the disease, some stools may be from the fæces contained beneath the Gut affected, which by Nature or Art may be excluded before all the Intestines consent and lose their proper and Natural faculty. But when the Disease is confirmed, and the motion of all the Guts is peristal like, and inverted wholly, there is nothing more sent downward.

The signs of the Causes are these: If *Ileos* come from Inflamation (which often happeneth) the Disease is most acute, and comes quickly to the heighth, there is an intense feaver, a most vehement pain, Chollerick Vomitings and flegmatick do soon appear, and faces and dung do presently, and other deadly signs before mentioned.

If it come from the fæces endurable, there went before it a constriction of the Belly for many daies, and in the beginning there is no pain, but afterwards there is, the Disease is of longer continuance, nor is it so acute as that which comes from Inflamation, neither is the pain so great, nor the Feaver so strong, and somtimes there is none.

If it come from wind or flegm, it followeth for the most part the Chollick, and signs of the Chollick, of flegm and wind went before, which are laid down in the Chapter afore going.

As for the Prognostick. Every *Ileos* is dangerous, but one more than another. That is most deadly, in which first there is chollerick, then flegmatick, and after stinking vomiting; and *Galen*, 6. *de loc. aff. cap.* 2. saith none of these escape; but Experience teacheth that some do, as when the disease comes from retention of the fæces, or *Hernia Intestinalis*, or Rupture in the Guts.

They who have this Disease with the Strangury, die within seven daies, except a Feaver coming, the Urine be more plentifully voided. *Hipp.* Aph. 44. Sect. 6. if the Strangury come of thick and and flegmatick Humors which are plentiful in the Veins and Guts, a Feaver coming thereupon, they may be concocted, melted, and attenuated, and pissed forth, by which means the *Ileos* is cured. Although *Galen* in his Comment upon this Aphorism, saith that he is ignorant of what *Hippocrates* saith here, and that it cannot be confirmed by Reason and Experience.

If Symptomes be remitted, and either Medicines or meat taken at the Mouth, pass through, there is hope of recovery.

The Cure of this Disease, is to be varied according to the difference of the Causes. And first, if the obstruction comes from the Fæces indurate, or from gross and slimy flegm, you must use Emollient and Laxative Medicines, both internally and externally.

First then, give Clysters of the Decoction of Althæa, Mallows, Violets, Chamomel, and Melilot, with Lin-seed and Fœnugreek seed, or of common Oyl to a pint, in which you may dissolve the third part of Butter, or of the Broth of a Sheeps Paunch, in which dissolve Butter, Honey, and Sal gem. To which Decoction, if there be wind (as commonly there is) it is good to put Carminatives and Discussers.

After the Matter is somwhat mollified with these Clysters, you must give first some gentle Purges, then stronger, and last the strongest.

In the mean while you must apply Fomentations and Liniments that are Emollient, to the whol Belly, and continue them long. The Paunch of a Gelding warmed in hot Water, applied to the Belly, is good; but mollifying Baths are better, especially if they be made of Air only.

Also you may give inwardly the Oyl of sweet Almonds either alone with white Wine. To which if the pain be great, you may ad the Syrup of Poppies, as was shewed in the Cure of the Chollick.

And lastly, If there be vehement pain, and much flatus, you may give those other Medicines which are prescribed in the Cure of the Chollick, not omitting Purges, which being opportunely given, take away the Cause.

That which comes from Inflamation of the Intestines, is to be cured by often Blood-letting, if strength permit, both in the Arm and Foot, and by applying of Cupping-glasses with Scarrification to the Groins. Also Emollient Clysters and cooling, are to be given, made thus:

Take of *Althæa Roots two ounces*; *Mallows and Violets, of each one handful*: *Guord seeds half an ounce*: *Line and Fleabane seeds, of each two drams*: *Water Lillies and Roses, of each one pugil*: *Chamomel Flowers half a pugil*: *make a Decoction, in a pint whereof dissolve two ounces of Oyl of Roses*; *Cassia one ounce*: *make a Clyster, and in progress of time ad Oyl of Violets and Chamomel.*

The

The aforeſaid Emollients muſt be boyled in Oxycrate.

Or give new Milk with a little Sugar, and the white of an Egg, or the Mucilage of Fleabane ſeeds one ounce, to aſſwage pain.

Or you may make a Clyſter of Oyl of ſweet Almonds, Barley Cream, ſtrained from the Decoction of it, adding a little freſh Butter and Sugar.

A Clyſter may be made of ſimple Oxycrate, and be every day given, which is excellent againſt the Inflamation of the Guts.

Anoint with Oyl of Violets, ſweet Almonds, and Chamomel, with Mucilage of Linſeed, Fænugreek ſeed, and Quinces, with Axungia of Hens and Ducks, and ſweet Butter.

Alſo make a Fomentation of the Decoction of thoſe Simples which were preſcribed for a Clyſter.

Alſo Foment in the beginning with Oxycrate, and after let the Simples aforeſaid, be boyled in Oxycrate.

And make a Catataplaſm of the reſidence of thoſe things in the Decoction with Barley Meal, Fœnugreek, Lin-ſeed, and Butter, with Axungia's and Oyls aforeſaid.

Alſo a Bath of warm Water, in which cold and Emollient things have been boyled, is moſt convenient.

After bleeding, give two ounces of Oyl of ſweet Almonds to appeaſe pain, and if it be very great uſe Narcoticks.

If there be no vomiting, you muſt provoke it with a draught of warm Water with Oyl of Violets, for ſo the upper parts will be purged, and the Humors will be revelled from the part affected. In the whol time of Cure, you muſt give Juleps and Emulſions preſcribed in the Inflamation of the Stomach.

Let his Drink be Barley Water: and in the beginning let him abſtain from all Nouriſhment for twenty four hours, that ſome of the Matter may be conſumed; then give him Chicken Broth. This Diſeaſe is to be attended with diligence, for it is for the moſt part deadly.

The chief buſineſs in the Cure, is by abſtinency; and this is taken from the example of thoſe that are wounded in the Guts, for they are almoſt famiſhed for forty daies. Therfore let men in this diſeaſe for four or five daies, take only three ſpoonfuls of Broth every day, that vomit may be hindered which doth encreaſe the Diſeaſe.

Moreover, Food bringeth no comfort to the ſick, for it turneth not to nouriſhment, but is plainly corrupted, and the Chyle which goes from the Stomach into the Guts, is mingled with the excrements retained, and encreaſeth vomiting.

He may drink more freely, becauſe it goes more eaſily to the Liver, and it may be fit to oppoſe the Diſeaſe, if it be well tempered Oxycrate, and in a ſmal quantity.

Laſtly, It comes ſometimes but ſeldom, from the circumvolution of the Inteſtines; and this is either from Wind, which tortureth them; or from a Hernia called Interocele, or Rupture.

That which comes from Wind, is cured by the ſame Medicines which Cure the flatulent Chollick. But if after long uſe of theſe Medicines, the belly will not be opened, but all things taken are vomited up, that there is little hope of health, the laſt Remedy muſt be uſed, which *Hippocrates* propounds 3. *de morbis*, namely, That a pair of Smiths Bellows be applied to the *Anus*, and that they blow into his Belly. Then give an Emollient Clyſter with Troches of Alhandal to bring out the faeces. This is good not only againſt the *Ileos* from contorſion of the Inteſtines, but in that which comes from a grievous obſtruction, for by dilating the Guts it takes away the obſtruction. *Amatus Luſitanus*, *Curat. uli. Cent.* 1. teſtifieth that he cured one deſperate by this means: as alſo *Epiphanius Ferdinandus* in his Phyſical Hiſtories, Hiſt. 74. reports that the ſon of *John Altimar* of *Naples*, a moſt expert Phyſitian, was ready to die of this Diſeaſe, and taken as it were from the Graves mouth by this means. But *Aurelian* diſalloweth it, becauſe the wind coming from the Bellows may much hurt with its cold. But this may be avoided if the Bellows be filled with wind by the fire.

Parœus alſo propounds another unuſual Medicine, by which he boaſteth that he cured many at deaths door, namely, by drinking three pound of Quick-ſilver in Water alone, for with its weight it doth untie the Gut, and open, and ſends down the hard excrements, which Remedy is commended by others, who ſay that it may be taken without harm.

But we may wel fear ſo great a quantity, leſt it extinguiſh the Native heat with its coldneſs, and coagulate the Blood in the Veins; therefore in a deſperate caſe it is better to give a leſs quantity. Some give two ounces in a rear Egg, and think good to repeat it if the firſt Doſe do not ſucceed well, but you may ſee in our Obſervations, that one ounce hath done well.

But when the Illiack Paſſion comes from the Guts falling into the Cods, all the care is to place them right, which muſt be done by the gentle hand of a Chirurgion, long fomenting the part affected, firſt with an Emollient Decoction, and Relaxing Oyls, giving often Emollient and Carminative

Clysters, so placing the Patient that his Head be low, and his Thighs high, for some having been hung by the Heels, were quickly cured.

If the Hernia comes with Inflamation of the Intestine, it is cured with a fomentation of cold water. If wind stretch the Gut, discuss with a Fomentation of Spirit of Wine. See the examples of both Cures in our Observations.

Chap. 3. *Of Astriction, or binding of the Belly.*

BY Astriction of the Belly, we do not understand all kind of supression, by which nothing is let forth downwards, as in the *Ileos*. But only a dull and slow dejection, by which the fæces and reliques of Meat are seldom, and not according to the quantity of Food thrown forth; therefore they are necessarily indurated, because of their long continuance being dried with heat, and some moisture is alwaies drawn from them by the Meseraick, which reach not only to the thin, but thick Guts. It is a Symptome of the Expulsive faculty diminished, or the retentive encreased, and it is the cause of many diseases; therfore the Excreta and Retenta are reckoned among the six things not Natural, which not keeping the Law of Nature, produce divers Diseases, so it being bound, sends vapors to the Head, and produceth Catarrhs, and other Diseases of the Brain, disturbs the Concoction of the Stomach, and the actions of other parts.

The Causes of this Symptome are many: And first, hardness of the fæces, and driness, are not only Effects, but also Causes of them, because being hard, they are more difficult to be voided, and do less provoke the expulsive Faculty. They become dryer and harder chiefly, and oftenest from the excessive heat of the Liver, which powerfully draws away all the moisture contained in the Intestines, and leaves the fæces dry. This is also caused by violent motion, especially riding: also by few Excrements through want of food, or because they have no acrimony to prick the Intestines, as it happens in cold Meats; and when the Choller doth not go to the Guts, as we observe in the Jaundice. And lastly, Many diseases of the Guts may cause this constriction, as a cold and dry Distemper, Tumors, Obstructions, Numbness of the Anus, and Palsey, and many others.

The Signs depend upon the knowledg of the Causes, which must be taken from their proper Fountains.

The hot distemper of the Liver is to be taken out of its proper Chapter. Also Tumors, and other Diseases of the Guts, have their proper Diagnosis, or signs, and so the external Causes, as little Meat, or coldness thereof, riding, and the like, are known by relation of the Patient.

As for the Prognostick: The Constriction of the Belly is more or less dangerous, according as the Cause is greater or less. For if it come of Inflamation, or other Tumor of the Intestines, it is very dangerous: but from other Causes less. It useth to be contumacious and long when it comes from the fæces indurate; and thence come often Chollicks, which return after they have been cured, by reason of the new dryness of the fæces; as also because though the Belly seems to have been made sufficiently soluble by purging, and many liquid Excrements are discharged, yet there remains sometimes many hard Excrements in the Guts, which breed new pains, and cannot be taken out, but by many Clysters given after Purging.

The Cure of this Disease depends upon taking away the Causes, which are to be taken from their proper Chapters. But because it is commonly long, especially when it depends upon a hot distemper of the Liver, and dryness of the Guts; and in the mean time the Belly bound brings many inconveniences. We will speak of its Cure by its self, which is generally done by Emollients, and Laxatives made thus:

Take of *Althæa, or Marsh-mallow, and Lilly Roots, of each two ounces: Mallows, Marsh-mallows, Mercury, Violets, and Brank Ursine, of each one handful: Lin-seed and Fœnugreek of each half an ounce: Annis seed one dram and an half: sweet Prunes three pair: Chamomel and Melilot flowers, of each one pugil: boyl them to a pint and an half. Dissolve in the straining Oyl of Lillies and Lin-seed, of each two ounces: fresh Butter one ounce and an half: Diacatholicon, and Diaprunis simple, of each six drams. Make a Clyster to be given as often as need requireth.*

Sometimes instead of this use the following:

Take of *the Decoction of Sheeps entrals one pint: fresh Butter two ounces: Cassia, Diacatholicon and Diaprunis simple, of each half an ounce: red Sugar one ounce: Make a Clyster.*

Also twice in a month, or thrice, you may give one pint of common Oyl alone for a Clyster.

And because Nature will grow dull by too much use of Clysters, and at length will never officiate that way; but when she is provoked by one, you must endeavor to mollifie the Belly with other means.

For

For this end, ſweet Prunes and roaſted Apples with Sugar, may be taken one hour before dinner, as *Galen* ſheweth 2. *de facult. alim. cap.* 31. For if they be taken immediately before dinner, they will not work. Or take Chicken Broth, or other Broth, in which have been boyled, Beets, Borrage, and ſome Apples, or one ſpoonful of Oyl of ſweet Almonds newly drawn without fire, with as much Syrup of Maiden-hair, or two ſpoonfuls of this Syrup following:

Take *of the Mucilage of Fleabane ſeeds, and of Quinces drawn with Mallows Water, one pound and an half: white Sugar one pound. Make a Syrup according to art.*

That the Prunes may work better, let him drink half a glaſs of *Vinum Lymphatum*, or Wine and Water, before and after he taketh them, freſh Butter taken an hour before Dinner the bigneſs of a great Nut, and drink Wine and Water will do the ſame thing.

Once in a week let him uſe one of theſe following Medicines:

Take *of Caſſia new drawn one ounce: Cream of Tartar one dram: Make a Bolus.*

Take *of Manna one ounce, or an ounce and an half: Mix it with Broth, and take it in the morning.* Or,

Take *of Oyl of ſweet Almonds, and Manna, of each one ounce: Diſſolve them in Broth to be taken two hours before dinner.*

Take *of pulp of Caſſia two ounces: Tamarinds and Manna, of each one ounce: the pouder of Senna half an ounce: Cremor Tartari two drams: With Syrup of Roſes ſolutive make an Opiate. Let him take half an ounce or an ounce.*

Or diſſolve in the Decoction of Prunes half an ounce, or an ounce of Manna: let him take it one hour before dinner as all the aforeſaid, for ſo they will work better.

Ptiſans of Succory, Agrimony, and Sorrel, caſt into Water that begins to warm, and infuſed one night, either drunk alone, or with Wine, for ordinary Drink doth keep the Body looſe.

This following Broth doth moſt certainly looſen the Belly, and keeps it ſo.

Take *of Beets and Mercury, of each one handful: Boyl them in Broth, and take it one hour before dinner.* Or,

Take *of Conſerve of Damask Roſes with Manna and Sugar, of each equal parts, one ounce for a doſe.*

Laſtly, A Bath, or Tub with a Decoction of Emollient Herbs is very profitable to moiſten all the parts Natural and mollifie the Belly.

Chap. 4. *Of Lientery, and Cœliack Paſſion.*

LIentery is a kind of Flux of the Belly, in which the Meat is quickly ſent through the Belly, as it was taken unchanged. But in the Cœliack Paſſion the Meat comes forth crude, and imperfectly concocted, whence it appears that theſe two Diſeaſes differ only in degrees, ſo that Lientery is referred to the act aboliſhed, and Cœliack Paſſion to the act diminiſhed. For although the Meat is ſent forth, either altogether unconcocted, or imperfectly concocted, yet theſe Diſeaſes are not to be referred to concoction hurt, but rather to the retention; for they are either il concocted, or not at al, becauſe they are quickly ſent forth, and are not long enough retained to be concocted. Hence it is collected, that though this Diſeaſe be reckoned among the Diſeaſes of the Guts, yet the Stomach is much affected, and ſomtimes more than the Inteſtines: Hence *Galen* 6. *de loc. aff. cap.* 2. ſaith that a Lientery and Cœliack Paſſion come both by fault of the Stomach and Guts.

Many Cauſes of theſe Diſeaſes are propounded by Authors; all which we may refer to three Heads; the cold diſtemper of the Stomach and Liver, the provocation of thoſe ſame parts; and a great debility of the retentive faculty from ſome deadly diſeaſe.

The cold diſtemper generateth great plenty of flegmatick and glutinous humors, which covers and daubs over the wrinkles of the Stomach, ſo that it cannot retain the food. Hence we may admire why *Galen* 6. Aph. 1. doth ſpeak againſt the old Greeks, who called this Diſeaſe *Lienteriam*, or ſmoothneſs of the Inteſtines therefore, becauſe the internal ſuperficies, or the Stomach being made ſmoother, doth not retain the Meat; whereas the Stomach doth not retain the Meat til a perfect concoction be made ſo much by the roughneſs of the inward coat, as by an innate propriety of aſtringing. For as we muſt confeſs that the principal cauſe of retention is the faculty; ſo alſo muſt we acknowledg that the faculty doth want inſtruments fitly diſpoſed, without which it cannot act: and therfore ſince the inward Tunicle of the Stomach is made rough and wrinkled, that the Meat may be retained in the Stomach, it is no doubt but if that roughneſs be taken away while the wrinkles are filled up with flegm, the retention of the Stomach wil be hurt, ſo that the Food wil ſlip away unconcocted. The like is in the Womb whoſe inward Tunicle is rough and wrinkled, that it may the better retain the Seed for Conception; but if it be covered with glutinous Humors, it doth not retain, and the Seed preſently comes forth, whence many Women are barren.

But

But let us note, That if any wil ſtrictly examine this word, he ſhal find that this Symptome is rather to be called the Smoothneſs of the Stomach than of the Inteſtines: neither doth it comprehend al its ſorts, but only that which comes from Flegm, which becauſe it is moſt uſual, the reſt have their denomination from it.

The provocation of the Stomach and Guts is by ſharp Humors which by twiching thoſe parts ſtir them to ſend them forth too ſoon, as it is in the Bladder, which being pricked by Acrimony, doth often piſs: Hence comes the Strangury, *Galen* 6. Aph. 1. ſaith, That by thoſe ſharp humors there is an Ulcerous Diſpoſition in the Stomach, as the Aphthæ, or Thruſh is in the mouth of Children.

The great imbecillity of the Retentive Faculty in great and deadly Diſeaſes often cauſeth a Lientery, as you may ſee in a Dyſentery, which when nature is conquered degenerateth into a Lientery; the Stomach being drawn to conſent with the Guts which are ſo grievouſly affected, and its Faculties being overthrown; ſo alſo in Malignant Feavers there happeneth often a Lientery wherby the broth as ſoon almoſt as taken is caſt forth unconcocted; and the ſame is when Poyſonous and Hurtful things are taken.

There is alſo another Cauſe different from the former, which peculiarly makes a Cœliake Paſſion, namely, The Obſtruction of the Meſaraike Veins which hinder the paſſage of the Chylus to the Liver; whence it muſt needs be caſt forth by the Belly, but that this may be, it is neceſſary that al the Meſaraick Veins, or the greateſt part of them be ſtopped, as in Children who have the Struma, or Kings Evil, whoſe Melentery is found ful of Glandles, by which the Meſaraike Veins are ſtopped: and theſe continually have a Chylous and Cœliake Flux: They eat much and grow leaner til they fal into a Maraſmus.

Ætius and *Celſus*, and many of their followers, do propound another Cauſe of the Lientery, namely, A Smooth and Thick Scar in the Guts remaining after a long Dyſentery, by which the mouths of the Veins being ſtopped, the diſtribution of Nouriſhment is hindered, and thence comes a Lientery, which Cauſe we cannot entertain for then al the Guts ſhould have been Ulcerated, and the Scar in them al ſhould ſtop al the meſeraiks which is not agreeable to reaſon: becauſe it is impoſſible that al the Guts ſhould be ulcerated, and the man not die.

The chief Signs of theſe Symptomes do appear by what is ſaid, for if crude meat and unchanged deſcend quickly and often through the Guts it ſignifieth a Lientery; but if it be ſomewhat changed and ſeem like Chylus; it ſhews a Cœliack Paſſion.

The Signs of the Cauſes are thus gathered,

If Lientery or Cœliake Paſſion come of a cold diſtemper and Flegmatick humors, there wil be ſowr belchings, the excrements of the belly are Flegmatick, there wil be thirſt and want of pain: if the Flegm come from the Head, as it often doth, the excrements are frothy, and the Flux is greater after ſleep; And there are other Cauſes which alter the Head, and other Signs of a Catarrh.

If it come from Irritation, or provocation, there is ſomtimes a gnawing in the Stomach, a heat in the Hypochondria, there is great thirſt, ſharp excrements and chollerick.

As for the Prognoſtick, Thus,

Lientery and Cœliack Paſſion laſting long is dangerous, becauſe it catcheth away the nouriſhment from the whol body, from whence comes an Atrophy, or a Dropſie: and if it follow great and acute Diſeaſes, it uſeth to be deadly.

The Cure of this Diſeaſe is to be altered according to the variety of the Cauſes that produce it.

And Firſt,

That which cometh from Flegm may be Cured by thoſe Remedies which were propounded for the Cure of Want of Appetite coming of a cold Cauſe; Chuſing thoſe things which are moſt Aſtringent to ſtay the Fux of the Belly.

Therefore you muſt begin with Purging of the peccant humor with Medicines made of Aloes, Rhubarb, and Myrobalans.

Clyſters are here of little force, while the Stomach is chiefly diſtempered; except an immoderate Flux do require them: and then they muſt be Aſtringent and ſtrengthening according to the Forms which ſhal be propounded in the following Cures.

After Purging ſufficiently you muſt ſtrengthen the Stomach with Opiats, Pouders, Fomentations, Plaiſters, and other Remedies mentioned in the place above quoted, in which (as I ſaid) you muſt not omit Aſtringents, as Maſtich, Citron peels, Coriander ſeeds, Snake-weed Roots, Tormentil, Coral, &c.

And beſides others, the Opiate following which is greatly Commended by *Amatus Luſitanus* is Convenient, by which he ſaith he Cured an Old man, after many other Medicines failed.

Take of *Conſerve of old Roſes ſix ounces: of the beſt Treacle ſix drams: Syrup of Quinces as much as will make an Opiate, of which let him take half an ounce in the morning, not drinking preſently after.*

That

That which comes of Choller is to be cured by those Remedies which were laid down against Chollerick Vomiting; as also by those which shal be described in the Cure of a Chollerick Diarrhœa.

That which comes from the imbecillity of the Retentive Faculty in a deadly, or at least dangerous Disease, is to be cured first with Fomentations applied to the Region of the Stomach, thus made:

Take of *the Roots of Snakeweed, Tormentil, and dried Citron peels, of each two ounces: the Leaves of Mints, Plantane, and Sea Wormwood, of each one handful: Nutmeg, Cloves, and Cinnamon, of each three drams: red Roses four pugils, beat them and cut them according to art, and fill two bags pinked therewith, and steep them in equal parts of Iron Water, and red astringent Wine; or in Wine alone, if there be no great Feaver, and let them be applied to the Stomach warm one after another.*

Afterwards use this Oyntment, or some Emplaister made of those which are prescribed for Chollerick Vomiting.

Also anoint the whol Belly with Oyls, or astringent Liniments.

Give Clysters of Broth in which red Roses have been boyled, dissolving therein Sugar and Yolks of Eggs, and sometimes *Confectio de Hyacintho*, if the Patient be very weak.

And finally, You may give at the Mouth, strengthening and astringent things, as in the Cure of Vomiting before mentioned; as also thus, which shal be shewed for the flux of the Belly.

In a Cœliack Passion the Food is sent forth crude and imperfectly concocted. It only differs from Lientery in degree, and is cured with the same Remedies.

But if the stools be altogether Chylous, this Disease doth not depend upon the fault of the Stomach, but upon the obstruction of the Meseraick Veins, which is usual, especially in Children. And therefore it is to be cured by Remedies which open obstructions and strengthen the Liver, because that is commonly also weak; but you must use no astringents, least another kind of flux should follow. These Medicines are at large set down in the Cure of the Diseases of the Liver.

Chap. 5. *Of Diarrhœa.*

Diarrhœa is that kind of flux of the Belly, by which the excrementitious Humors are sent forth without Blood or Food, and without the Ulceration of the Intestines.

By the Conditions of Diarrhœa properly so called, is distinguished from other kinds of fluxes, because in Lientery and Cœliack Passion, the Food is cast forth unconcocted, or half concocted; in a Dysentery and Tenesmus, Blood is mixed with the Excrements, as in the flux of the Liver, called *Hepaticus*, and in the *Hæmorrhoidal*.

Many are the Differences thereof; which that they may be cleerly explained, are to be referred to three Heads: The first whereof respects the Matter which is voided; the second the place from whence it comes; the third, the Manner, and efficient Cause which produceth the flux of the Belly.

In respect of the Matter voided, this flux is divided into a Chollerick, Flegmatick, Melancholick, and serous, or watery.

In respect of the place from whence it comes; either it comes from the whol Body, or some peculiar Part, as the Brain, Stomach, Guts, Liver, Spleen, Mesentery, Womb, and other Parts.

Thirdly, In respect of the Manner and Efficient Cause; one Diarrhœa is Critical, another Symptomatical; one comes from an internal Cause, as a distemper, or evil disposition of the internal parts; another from an external, as from some Medicine or Poyson.

These Differences are seldom found single, but they are often complicated in one and the same flux. So a Chollerick flux is from the Liver or the whol Body, a Flegmatick from the Brain or Stomach, a Melancholick from the Spleen, and a Serous from the whol Body.

Also these Differences are complicated from a divers mixture of Humors, so that sometimes Choller, Flegm, and Water, are sent forth by the same flux.

There is another kind of Diarrhœa different from the rest, which is called *Synteffice*, or *Colliquativa*, coming from the melting away of the substance of the Body, and Humors by the violent hot distemper of the solid parts: such as happeneth sometimes in the Inflamation of the Bowels, in a strong burning Feaver, hectick, or pestilential; in which a fat Matter as it were mixed with Oyl or Grease is voided.

Lastly, *Fluxus stercorosus*, or a dungy flux, is another kind, in which much liquid excrement is often voided, which comes from excrementitious Meats corrupted in the Stomach, or a great plenty of Excrements heaped up in the Intestines.

The Knowledg in general is manifest, namely, when more liquid Excrements are voided, and oftener than usually Nature doth allow.

The Signs of these Differences which are taken from the matter are manifest to the Senses, namely, Whether they be Flegmatick, Melancholick, Cholerick, or Serous.

The Parts Sending have a more difficult Diagnosis or way of Knowledg, yet they are thus Distinguished:

If the Humors flow from the whol body, there either is, or hath lately been, a continual Feaver, or some other disease of the whol body, as Cachexia, evil Habit, or Leucophlegmatia, or white Dropsie; or there hath been over-eating or drinking, and there is no sign of any Disease of any peculiar part.

If it be Critical, it is a benefit to the Patient, and is easily endured; and thence the Disease is either Cured, or Diminished.

Sometimes there hapneth a Critical Diarrhœa without a Disease in some bodies which use to lay up evil Humors; and being strong, do throw them forth at times when they abound and burden nature as *Galen* taught, 7. meth. Cap. 11. of which Flux *Celsus* maketh mention, *lib.* 4. *cap.* 19. in these words, *It is healthful for to go often to the Stool in one day, and in many dayes together if there be a Feaver, and if it cease before the seventh day; for the Body is purged, and that which inwardly would have hurt, is now sent forth.*

Among Critical Fluxes, the Serous is one; which comes without a Disease aforegoing, in them who have much Water in their Veins, and that chiefly in the Harvest time, or Autumne: namely, when the night and morning cold of Autumne, finding the passages external and pores of the skin open, by reason of the heat of Summer aforegoing doth therefore insinuate it self deeper into the body, pressing forth internally the Serous Humors contained in the Veins, which Nature afterwards being over-burdened with, sends by the Meseraick Veins into the Intestines, and many times into the Uriters.

Hence it is that many in the beginning of Autumne, and in the first cold weather, do make abundance of Urine for many dayes together.

But if a Diarrhœa be Symptomatical, it troubles the patient much, and weakeneth him; and the Disease upon which it comes, is encreased; or at least is in the same state.

This Symptomatical Flux in burning Feavers and Malignant, is often melting; and hence it is known, because the Excrements appear unctious, and the body forthwith becomes lean, and consumed, and almost in a Marasmus.

If the Diarrhœa comes from the Brain, the Stools are frothy, as *Hippocrates* taught, Aphor. 30. Sect. 7. which is not alwaies so; For Flegm may flow from the brain without Wind, which is the only cause of froth: as also Wind may be mixed with Humors that are bred or contained in the stomach or intestines, from whence the Excrements may be frothy, though they come not from the Head.

Therefore we must joyn other Signs to this, namely, If the Brain have any manifest Disease, as a Catarrh, Deafness, Lethargy, Apoplexy, or great Heaviness, Pain, or Sleepiness; and if the Flux be more at night than day.

If it come from the fault of the Stomach, there wil be the Signs of the Concoction of the Stomach Hurt: As if the Food be corrupted, and have a sharp and stinking quality, by which the Expulsive Faculty is stirred up to expel them.

Also there wil then be the Signs of a Hot Distemper of the Stomach: So, if the Stools be Crude and Flegmatick, and if Concoction be slow and diminished, we argue that the Concoction of the Stomach is hurt by a cold Distemper: and lastly we know that the fault is in the Stomach, if the Patient did before fill himself with evil Food which would easily corrupt.

The Flux of the Belly comes from the Guts, when they are ful of Worms, and then there wil be signs of Worms which you may take from their proper Chapters.

If from the Liver, The Stools wil be Cholerick, because Choller is bred there; and there wil be Signs of a Hot Distemper, Inflamation, Obstruction, and other Diseases of the Liver.

If from the Spleen, The Stools wil be commonly black or blackish, a distention in the left Hypochondrion, a heaviness also or pain there, and other signs of the Spleen Distempered wil appear.

If from the Mesentery, There wil be extension, stretching, or pain in that part: But Humors gathered in the Melentery, come commonly from the Liver and Spleen.

If from the Womb, There wil be stoppage of the Courses, or the Symptomes of the Womb affected, which use to be more violent, and the Flux also at that time when the Terms ought to flow.

The

The Prognoſtick of a Diarrhœa is made thus,

A Flux of the Belly which is eaſily endured, and in which the Patient finds refreſhment, is good: On the contrary, that which is painful and weakneth, is evil: The firſt is to be accounted Critical, the laſt Symptomatical.

When the Liquid Excrements grow thicker, it is good: For it ſignifieth, That the Faculty Worketh well by Concocting of evil Humors: which is done by making them thick.

Thin Excrements with pain often voided are evil, for they ſignifie great ſharpneſs of Humors which do violently pul, ſtimulate, prick, and gnaw the Guts.

Liquid Stools without Feeling when they are voided, are evil: For they either ſignifie Diſturbance of Mind, or Doting, or Diſſolution of the Natural Heat, which is followed by the loſs of Senſe.

Liquid Stools beginning with an acute Diſeaſe, and continuing with the ſame, is evil: for it ſignifies great plenty of Matter, or an evil quality therein, which forceth Nature to ſo ſudden a flux.

If a ſtrong Diarrhœa comes upon him who hath the Leucophlegmatia, it cauſeth recovery, *Hipp.* Aph. 29. Sect. 7. For there is an Evacuation of the Matter, which was in the whol Body. But this wants a limitation. The Aphoriſm is true, if this flux happen in the beginning of a Diſeaſe while the ſtrength is good; otherwiſe it doth not take away the diſeaſe, but the Patient.

If a Woman with Child have a flux of the Belly, ſhe is in danger to miſcarry; *Hipp.* Aph. 34. Sect. 5. For the food which ſhould nouriſh the Infant, is for the moſt part carried away, and the ſtrength is abated; as alſo the Ligaments of the Womb are relaxed by a continual flux of Humors thither; as alſo the Child and the Womb are infected by the vapor of thoſe excrements which are continually voided.

Yellow Stools like Yolks of Eggs; green, like Verdegreece; livid, black, of divers colors, or very ſtinking, are evil: For the reaſon which we gave in the Chapter of Vomiting.

As to the Cure: Since a Symptomatical Diarrhœa comes commonly from corrupt Humors, Chollerick, Flegmatick, Melancholick, or Serous, and eſpecially from Chollerick, which provoke the expulſive faculty of the Inteſtines by their ſharpneſs. You muſt begin the Cure by Evacuation of the Humor offending, which muſt be done by a Medicine which doth aſtringe by purging, leſt that flux ſhould be encreated by motion of the Humors; and you may make it thus:

Take of *the beſt Rhubarb one dram: Citrine Myrobalans half a dram: Yellow Sanders half a ſcruple: Infuſe them in Plantane Water, diſſolve in the Liquor ſtrained half a dram: the pouder of Rhubarb, and one ounce of Syrup of Roſes. Make a Potion.*

You may ad Diacatholicon, or other Medicines, according to the condition of the Humor to be purged.

Alſo Vomiting is ſomtimes good, becauſe it Revelleth and Evacuateth the Matter of the Diſeaſe.

If there be ſigns of blood abounding, and ſtrength, you muſt firſt let blood. And if there be a Feaver, you muſt open a Vein, though there appear no Plethory, or fulneſs.

Before and after Purging, give cleanſing Clyſters, ſuch as theſe:

Take of *whol Barley two pugils: Bran and red Roſes, of each one pugil: Liquoris ſcraped, and Raiſons whol, of each one ounce: boyl them to a pint: Diſſolve in the ſtraining of white Sugar one ounce; Yolks of Eggs two. Make a Clyſter.*

After the Body is ſufficiently emptyed, you muſt give aſtringents, and ſtrengtheners, both at the Mouth, and by Clyſters, as alſo to the Belly; the Forms whereof you may take out of the Cure of Dyſentery.

Beſides, You may conveniently uſe theſe that follow:

Take of *Chalybeat Vinegar one part: Chalybeat Water two parts: the Leaves and Fruit of Myrtles, Quinces, Medlars, Cervices, of each two handfuls: Cypreſs Nuts ſix pair, boyl to halfs. Foment the Belly warm with the ſtrained Liquor often.*

Take of *Oyl of Maſtich, Quinces, and Myrtles, of each one ounce: Sanguis Draconis, Frankinſence, and Gum Traganth, of each one dram: Wax as much as will make an Unguent to anoint after the Fomentation.* Or,

Take *Crums of toaſted Bread infuſed in Chalybeat Water, and Quinces roaſted in the Embers, or Marmalade, of each three ounces: Frankinſence, Maſtich, Sanguis Draconis, of each two drams: With Syrup of Quinces and Wormwood, make a Cataplaſm.*

Take of *Maſtich two drams: Boyl it in three pints of Water for ordinary drink, Iron Water is alſo good; but in a hot Diſeaſe, it is good to uſe the Tincture of Roſes, or Conſerve of Roſes mixed with Spring Water, or Water wherein Gold hath been quenched, mixed with Syrup of Quinces.*

Amatus Luſitanus reports of one that was cured of a Chollerick Diarrhœa by taking much cold

Water in the Summer time. We also once prescribed to a Sanguine man who was troubled with a Chollerick Diarrhœa in the midst of Summer with great thirst, Sal Prunella in his ordinary drink, and Juleps made of Lettice and Purslain Water to be taken thrice in a day, and he was cured in twenty four hours.

If the Humor be very sharp, and adust or burnt, the Patient must be purged sparingly with mild Medicines, otherwise the Disease will encrease, and he is to be cooled and moistened; as also to be blooded a little.

In the same case a warm Bath is very good; the Example whereof is in our Observations.

Plantane boyled in Broth, is excellent.

And least a Diarrhœa turn into a Dysentery, you must give Clysters of Chalybeate Milk, and Emulsions of the cold Seeds, and of white Poppy Seeds, to asswage the sharpness of the Humor.

As also this Syrup following.

Take of *the Juyce of Quinces six ounces*: *the Juyce of Endive and Sorrel, of each three ounces*: *Sorrel and Plantane Seeds, of each two drams*: *red Coral one dram*: *Plantane Water four ounces*: *Boyl them to the Consumption of half*: *strain and press them well*; *put to it as much Sugar to make a Syrup to be taken two drams first and last.*

In al Diarrhœa's, after universal Medicines, this following Bolus is good.

Take of *Conserve of old Roses half an ounce*: *Candied Quinces one dram*: *the pouder of Tormentil one scruple*: *With Sugar make a Bolus to be often repeated. Or if the Disease be old you may make an Opiate of the same, or the like, in a greater quantity to be taken at many times.*

Or to astringe more powerfully give this Pouder:

Take of *Sanguis Draconis, Frankincence, Mastich, Mummy, Terra Sigillata, Lapis Hæmatitis, or Blood-stone, Troches of Amber, of each one dram*: *true Bole three drams*: *make a Pouder, of which give two drams in convenient Liquor.*

Rhubarb twice infused, and then twice or thrice washed in Rose Water and dried, is good.

The Lozenges of the three Sanders, with four times the quantity of Rhubarb given twice in a day, the weight of two drams, do take away the Matter, and strengthen the Bowels.

The Leaves of Fleabane laid upon fire to that the smoak may be taken through a hollow Chair, do stop the flux of the Belly by a specifical quality. As also if the same Herb be beaten with Vinegar, and applied to the Stomach.

Also the smoak of Mullin taken through a hollow Chair, is excellent; the example of which is in our Observations.

Syrup of Coral is excellent, and much more the Tincture or Magistery of the same.

The Conserve of the wild Rose, or sweet Bryar Rose, is good against a Chollerick flux, especially if it be mixed in astringent Opiates.

But when there is danger of weakness through a long and often flux, you may give Laudanum with Mastich and Terra Sigillata.

When it is very violent, a Clyster of Broth and new Treacle is excellent.

Pils of Bdellium taken twice or thrice in a week, or every other day, are good against al old fluxes.

For the same is the often use of Medlars; as *Forestus* confirms by experience, obs. 1. lib. 22. in these words: *One that had a constant Flux, and spent all he had upon Physitians, came to me for counsel, whom I advised to eat Medlars, though green, as many as he could, by which he was speedily cured. As it was with a Zeland Merchant that came to* John Spirinchius, *a Physitian of Lovan, who having been long sick, and of a Dysentery at last, and could not be cured by any, was at length by his advice cured only with Medlars, and gave the Physitian three hundred Crowns for his advice.* Thus Forestus.

But we must observe that the Body before the use of Medlars be clensed from Excrements.

In an old Diarrhœa, the following Medicines are excellent:

Take of *the shavings of Ivory three drams*: *Confection Alkermes one dram*: *Sugar dissolved in Rose Water four ounces. Make Lozenges.*

Take of *Crocus Martis six grains*: *Bezoard Mineral half a scruple*: *Conserve of Roses two drams*: *Spirit of Vitriol three drops*: *Mix them in a Bolus to be given twice a day, long after and before Meat.*

Take of *the Juyce of Persicaria Maculata, and of the great Housleek, of each three ounces*: *boyl them till the third part be consumed, and give them in the morning, they do certainly cure any flux though very old.*

Mercurius Diaphoreticus given some daies together, twelve grains at a time, taketh away all the impurities of the Body, which use to beget fluxes.

The Decoction of Juniper Berries in Wine given three daies together, is good; and also one dram of the Pouder of Grashoppers given in white Wine. These two by deriving the Matter of the flux to the Ureters.

The

The Decoction of Juniper is thus made:

Take of *Juniper Berries one handful: red Wine one pint and an half: boyl them to the conſumption of two thirds. Let him take the ſtraining three daies together.*

The Water of Brimſtone Mines cure an old Diarrhœa by purging the whol Body, and by ſtrengthening the Stomach. Of which there is an example in our obſervations.

If a Diarrhœa come from a Catarrh, you muſt look to the Brain, as the part that ſends it, with the Medicines preſcribed in the Cure of a Catarrh. But if it depend upon the Obſtruction or weakneſs of the Liver or Spleen, you muſt cure them as ſhal be ſhewed in their proper places; and then there is little or no uſe of aſtringents. *Platerus* in the Cure of the Hemorrhoids, ſaith that hot blood given as a Clyſter, doth wonderfully cure a flux.

Chap. 6. *Of* Dyſenteria, *or Dyſentery.*

A Dyſentery is an often and bloody looſneſs of the Belly, with pain and torment depending upon the ulceration of the Inteſtines.

The word *Dyſenteria* is taken commonly among the Antients for every bloody flux of the Belly: but ſtrictly and properly it is taken only for the bloody flux, which comes from an Ulcer in the Inteſtines.

Gal. 3. de ſymp. cauſ. cap. 2. nameth four kinds of bloody fluxes, which he commonly calls Dyſenteries.

The firſt is when any part of the Body is cut, or when any exerciſe is omitted, or any bleeding is omitted, as uſual bleeding at the Noſe and Hæmorrhoids, that by reaſon whereof the blood abounding is ſent by the Meſeraick Veins to the Inteſtines, and ſo evacuated by the Belly.

The ſecond is, when by reaſon of the weakneſs of the Liver, Watery blood like that water wherein fleſh hath been waſhed, is voided; as it is in the Hepatick or flux of the Liver, of which we ſhal hereafter ſpeak.

The third is when Melancholick and ſhining blood is caſt forth, which by reaſon of the long continuance in the Liver or Spleen is burnt, and mixed with Melancholy. Shining ſignifieth burning, becauſe blood which groweth black by cold doth not ſhine, but loſeth that brightneſs or ſplendor which it had before.

The fourth Difference, is when the Patient at ſome ſhort diſtance voids blood with Humors or Excrements, with which ſometimes there is mixed Pus or Matter, and that with pain and torment, by which we may conclude that there is an Ulcer of the Guts. And this is properly called a Dyſentery, of which only we here diſcourſe.

The Internal Cauſes of a Dyſentery, are ſharp and ulcerating Humors, as yellow Choller, green like Leeks or Verdegreece, and black; as alſo ſalt flegm bred in the Head from great heat, or in the Belly by putrefaction, and ſo brought to the Inteſtines, where cleaving a long time, it doth ulcerate.

Here is a great Doubt propounded by Authors; How yellow Choller in a ſhort time ſhould cauſe a Dyſentery? When green Choller in a long time maketh only a Diarrhœa, which never turneth into a Dyſentery, ſince the green is made of the yellow by aduſtion, and hath more ſharpneſs.

Mercatus anſwereth, That there muſt be a clamminеſs, by which it may remain long in the Guts to corrode and gnaw them, as wel as a ſharpneſs. And therefore if yellow Choller be ſuch, it cauſeth a Dyſentery; on the contrary, if green Choller be more fluid, and ſtay leſs while in the Guts, it makes but a ſimple Diarrhœa.

Sennertus ſaith that this anſwer is probable; but it doth not ſatisfie, becauſe oftentimes there are fluxes, in which there is clamminеſs with ſharpneſs, and yet there is no Dyſentery. And contrarywiſe, often times there is no clamminеſs in Chollerick Humors which cauſe a Dyſentery, and therefore he thinks that the Humors which produce a Dyſentery have a peculiar occult quality, with which the Inteſtines are offended and ulcerated, as the Lungs are with the fiſh Lepus, and the Bladder with Cantharides, and no other part. And he proveth that malignant quality in that a Dyſentery is contagious for the moſt part, ſo that the infections which come from the vapors riſing from the excrements of thoſe that have a Dyſentery, do only infect the Guts of them that are infected, and not upon other parts. The ſame happeneth in other Epidemical and infectious Diſeaſes, in which the poyſon doth go only to ſome peculiar part; ſo their Pleureſies, Peripneumonia's, or Impoſthumes in the Lungs, and Squinzies which are infectious. So the Poyſon of a mad Dog doth only infect the Head. This is more cleer to be ſeen in Purging Medicines, which have a peculiar vertue to move the Humors in the Body, and bring them to the Guts, which wil not only, being taken at the Mouth, purge by ſtool, but laid to the Navil are taken by vapor at the Noſe; it is probable that they piercing into the Veins and

Arteries by the Pores of the Skin and extremities of the Vessels, do stir up motion, and Fermentation or working in the Humors, because the bad Humors are separated from the good, and by pricking or stimulating of Nature, they are driven to the Intestines by the force of the Medicine, directing the expulsive faculty to those parts. By the same reason, but after another manner, do Sudorificks, or Sweating Medicines, and Diureticks, or such as provoke Urine work; the former forcing the Humors to the Skin, the latter to the Bladder. From which we may collect that the infection of a Dysentery, by what manner or part soever it is admitted into the Body, doth cause a certain fermentation or working in the Humors by giving them a Disposition like it self; which being an enemy to the Guts, doth provoke the flux of the Humors to them, by which they are ulcerated; and they being infected with the like disposition, do infect the Humors and Nourishment; from whence comes a true and proper Dysentery.

It is demanded of divers Authors, What is that snotty and white Matter which is voided in such great plenty in Dysenteries, mixed with Blood and other Humors? Some think that it is the fat of the Guts; others that it is that with which the Intestines are lined for the better passage of the excrements; others, that it is flegm from the Head or other parts; others, that it is Pus or Matter from the Ulcers. But we conclude, That it is nothing else but a preternatural excrement of the Guts; for they being decayed from their Natural Constitution, cannot convert their proper Nourishment into their own substance, but by an imperfect way change it into that Matter; which when it is unfit for nourishment of those parts, is expelled forth, and then the parts wanting again Nourishment, attracteth or draweth new, which is changed as the former, and there must needs be a great encrease thereof, because the part affected continually draweth Blood from the Veins, which is changed into this slimy substance, by which it is deceived of its expectation, and therefore again draweth new for its Nourishment, which it continually aimeth at, but cannot turn into its own substance, but into this slimy Matter, of which there is so great an encrease. The same thing is done in other parts, and especially in great and profound or deep Ulcers. For the part Ulcerated when by reason of its evil disposition, it cannot be wel nourished, draws blood continually from the Veins, which is changed into Pus or Quittor, by which means the whol body by degrees consumeth. Nor doth this betal only parts ulcerated, but others that have no Ulcer or Imposthume; so that although the aforesaid Excrement be like Quittor, yet is not true Pus or Quittor; for that comes only from an Ulcer or Impostbume. This chiefly appears in an Ophthalmy or Inflamation of the Eyes, in which when there is no Ulcer or Impostbume, there is a continual Excrement like Quittor, which comes only from the distemper of the part, and the depravation of the Homiosis, or quality by which it makes Nourishment like it self. The same befals men in Asthma or Ptisick, and other Diseases of the Lungs, for their Lungs being distempered, do il concoct their own Nourishment, but turn it into an Excrement like Quittor, which is expelled by coughing, and yet they have no Ulcer in their Lungs; as many learned Physitians wil conclude when they see the Matter.

The External Causes of a Dysentery, are al things that produce sharp and evil Humors, or give them being produced, a disposition to cause a Dysentery. The principal are, sharp Meats, or very subject to putrefaction, as Fruits soon rotten, and al unripe things, Waters that are drunk ordinarily, wherein there is Crudity or a Mineral, and Medicines which are deadly qualified, and evil Air, as *Hipp.* Aph. 11. Sect. 3. when the Winter is too cold or dry, the Spring too wet, and too full of South winds, then there wil be Dysenteries in the Summer. And Aph. 12. Sect. 3. If the South wind blow much in Winter, and it rain much: but if it be dry, and the North wind blow much, in the Spring, those seasons produce Dysenteries.

But the proper Distemper of the Air to produce a Dysentery is known in a contagious or Epidemical Dysentery, which sometimes is more dangerous than others. As also there is an Infection in the Excrements of those that have this Disease to them that smel them, and if they be cast into the Privy they infect most of the Family that sit over them.

The Signs of a Dysentery are taken out of the Definition mentioned, an often bloody Evacuation with pain and torments of the Belly, and sometimes a Feaver, watching, thirst, loathing of Meat and other Signs common to many Diseases.

But it is hard to know whether the thick or thin Guts are ulcerated. Usually if the pain be above the Navil, they say it is in the thin Guts, and if below, in the thick; but this is contrary to reason, because both the thin and thick Guts are carried both to the superior and inferior parts. Therefore this sign is rather to be taken from the quality of the pain, and the excrements. For if the thin Guts are affected, there is vehement pain, like pins pricking, because they are more Membranous, and of more exquisite sence. As also they go not to stool presently after the pain, and there is blood in every stool; for because the Blood and purulent Matter comes far before it be voided, it is more mixed with the Dung; but if the thick Guts are affected, the pain is less vehement and lasting, there is presently after a going to stool, the Blood and Matter swim upon the excrement, or are very little mixed, and in a great Ulceration there are as it were little pieces of flesh.

The

The Signs of the Cauſes are taken eſpecially from the Colour of the Excrements, when they are yellow, green, white, or black, to which you may ad the Signs of Humors abounding from the Age, Temperament, time of the yeer, and courſe of Life.

The Prognoſtick is thus made,

If the Thin Guts are Ulcerated there is more danger, for they are more Nervous, and being neerer the Liver they receive more pure Choller.

Dyſenteries coming from black Choller, or Melancholly, are deadly; *Hippocrates*, aph. 24. ſect. 4. becauſe the Ulcer grows Cancerous, which is ſeldom Cured outwardly in the body. But if this Melancholly comes by Criſis, of Judgement, it is not ſo dangerous. But you muſt beware leaſt you take Congealed blood for Melancholly.

A Dyſentery from Choller or ſharp Diet is eaſily Cured: from ſalt Flegm it is worſe than from Choller, becauſe by reaſon of the Clamminеſs it ſtayes longer in the Guts to ulcerate.

In long Diſeaſes of the Guts, Loathing of Meat is evil, and worſe with a Feaver: *Hippocrates*, Aph. 3. Sect. 6.

If in a Dyſentery there be as it were little pieces of Fleſh voided, it is deadly: Aphor. 26. Sect. 4. for it ſignifieth a deep Ulcer which takes away pieces of the guts.

Much Watching, Stools without mixture of Humors, black, ſtinking, much blood, a Lientery coming after, Hickets, Chollerick Vomits, pain of the Liver, Midriff, great thirſt, do commonly declare that it is deadly.

A Dyſentery coming to thoſe which have the Gout or a Diſeaſe in the Spleen, is good: *Hippocrates*, 2. progn. & aph. 46. ſect. 6. but this is rather a ſimple Diarrhœa which ſends forth the matter of thoſe Diſeaſes.

Old Men and Children more commonly in this Diſeaſe than Men of middle Age, *Hipp. 2. progn* Children becauſe of their tenderneſs, and their not obſerving rules: Old Men becauſe their ſtrength is ſpent, and becauſe there is a great overthrow of their natural ſtate thereby: for they do not eaſily produce excrements that are fit to cauſe a Dyſentery.

The Cure of this Diſeaſe is wrought by Medicines that aſſwage, cleanſe, and evacuate ſharp humors that Conſolidate and dry Ulcers and ſtop the flux.

At firſt you muſt evacuate the Humor offending leaſt it do more miſchief, and you muſt Purge often; and if you think it not ſafe to purge every day or every other day, do it every third or fourth day: Rhubarb is the beſt for this purpoſe, either given in ſubſtance with Broth, or made into a Potion, as in Diarrhœa, Or thus,

Take of *Plantane half an handful*: *Liquoris ſcraped, and whol Raiſons, of each three drams*: *Red Roſes one pugil*: *Tamarinds ſix drams*: *yellow Myrobalans rub'd with Oyl of ſweet Almonds, two drams*: *boyl them to three ounces*: *Diſſolve in the ſtraining, of Rhubarb infuſed with Lavender in Plantane Water one dram*: *Syrup of Quinces one ounce*: *Make a Potion*:

Or,

Take of *Tamarinds half an ounce*: *Citron Myrobalans, two drams*: *boyl them in Barley and Plantane Water, infuſe in the ſtraining, of Rhubarb one dram and an half*: *yellow Saunders half a ſcruple*: *to four ounces of the ſtraining ad one ounce of the ſyrup of Roſes ſolutive*: *make a Potion.*

The Decoction of Myrobalans made thus, and given in many Draughts, is Commended of many.

Take of *the rinds of Myrobalans Chebs, ten drams*: *Citron Myrobalans five drams*: *Currans two ounces*: *boyl them in twenty ſix Pints of Water, to the Conſumption of the third part*: *ſtrain them, and adde ten drams of Sugar, clarifie it, and put to it half an ounce of Cinnamon.*

Penotus Commends the following Potion as good againſt both Dyſentery and Diarrhœa.

Take of *the Bark of Guajacum beaten two ounces*: *boyl them to halfs in a ſufficient quantity of Water, adding of red Roſes, Pomegranate Flowers, and Plantane, of each two drams*: *boyl them for an hour, and then adde to the ſtraining of poudered Rhubarb one dram*: *Diacatholicon, three drams*: *make a Potion.*

Many give Parched or Torrified Rhubarb, that the Purging Quality may partly be taken away: But *Amatus Luſitanus* takes the ſecond Infuſion of Rhubarb, and ſaith, That in the firſt Infuſion al his ſharpneſs is taken away, and it is better ſo than Parched, for by ſo doing it is burnt.

The Preparation is thus made:

Take of *Rhubarb one dram and an half*: *infuſe it in three ounces of Plantane Water ſome few hours, ſtrain it, preſs it gently, and then infuſe it again in three ounces of new Plantane Water, and diſſolve in the ſtraining half an ounce of Caſſia*: *make a Potion.*

If you deſire, by reaſon of the abundance of crude Humors, to Purge more, then you may make Syrup of Roſes, or Diacatholicon, or other mild things, but beware of ſtrong.

Sometimes

Sometimes a Vomit is very good, if the Patient be inclinable, and the Humors ſtand in the Stomach; for it makes a revulſion of the Humors from the part affected. Which *Amatus Luſitanus* wiſely mentioned, Curat. 44. Cent. 2. in theſe words: *If the Phyſitian can draw upwards, and caſt out by Vomit a Humor that is Chollerick and ſharp, flowing to the Guts to make a Dyſentery, it would be contrary to the Precepts of* Galen, *in his Book of Medicinal Art, and Method of Cure, to carry the matter by the Guts which are full of Ulcers. But when the Phyſitian cannot do it although he ought to try his beſt skill, he muſt then uſe Purges, and eſpecially Rhubarb.* This *Hippocrates* taught, Aph. 15. Sect. 6. *After a long flux of the Belly, if Vomiting come of it ſelf, the diſeaſe is cured.* But *Galen* in his Comment upon this Aphoriſm, ſaith, *That this is the example of thoſe things which are done rightly by Nature, which a Phyſitian ought to imitate.* And *Mercatus* confirms the ſame in theſe words: *Divert the Humors another way by bleeding if thou canſt; alſo purge, and Vomit, eſpecially in ſalt flegm, for thus we have ſeen old Dyſenteries cured.*

Angelus ſala preſcribeth this following Vomit in a Dyſentery:

Take of *Salt of Vitriol half a dram, or a dram: Syrup of Quinces, and Bettony Water, of each one ounce: Cinnamon Water ten drams: Mix them and drink it off.*

There is great Diſſention among Authors concerning Blood-letting in this Diſeaſe. And it is the Opinion of the wiſeſt, that in a Feaver and Inflamation of the Inteſtines (which is commonly joyned with an Ulcer) that it ought to be in the beginning of the Diſeaſe, before the ſtrength be decayed by it: for ſo there is a revulſion of Blood, and ſharp Humors flowing to the Guts. And *Valeſcus de Taranta*, and *Amatus Luſitanus* in an old Dyſentery drew Blood. *Valeſcus* ſaith, *That a very old man had a Dyſentery three months; I being ſent for, when other Phyſitians oppoſed it, commanded a Vein to be opened, be preſently amended.* And *Amatus* ſaith thus; *That an honeſt Phyſitian went to a man, who had a Dyſentery thirty daies with a great Feaver, and after the uſe of divers Medicines was brought very low, and lean, his flux continuing with much Blood and drew Blood from the Liver Vein of his right Arm: and obſerve with what ſucceſs; Preſently, miraculouſly the blood ſtopped, though his flux continued. But by Clyſters with Sugar, and aſtringent Medicines, both internal and external, his belly was bound, and he cured.*

In the mean while give many Clyſters, firſt aſſwaging, mild, and cleanſing; then glutinous and aſtringent; and ſometimes in one Clyſter all together, or moſt of them.

Mild, gentle, and anodine Clyſters that aſſwage pain, are made of Milk, either alone, or with two or three yolks of Eggs, or with the Mucilage of Fleabane Seeds and Quinces, of each four ounces; with Sugar or Honey of Roſes one ounce; Goats Suet one ounce; or with Milk wherein Gold, Iron, or Flints have been quenched, that the ſerous part may be conſumed, and ſo it may be more glutinous.

In want of Milk, you may give Almond Milk, or Barley Cream, or Rice Milk, alone or together; as alſo the Broth of Mutton, Chicken, Capon, or a Sheeps Head, and mix the former things therewith. It is uſual to boyl Roſes, and the Herb Horſ-tail with a Sheeps Head. Or this following:

Take of *Marſh-mallow Roots one ounce: cleanſed Barley, or Rice one Pugil: Lin-ſeed and Quince ſeed, of each one ounce: Fleabane ſeed half a dram: Chamomel flowers one pugil: Boyl them in Milk or Broth, adding the Suet and Yolks of Eggs, and other things before mentioned.*

Or you may make it of Milk alone, boyled with Marſh-mallow Roots at the firſt, to cleanſe and aſſwage the pain.

If the Pain be great, you muſt mix Narcoticks; as Philonium Perſicum, one or two drams: Pils of Hounds-tongue one or two ſcruples: Syrup of Poppies one ounce and an half: Laudanum five or ſix grains, in your Clyſters.

If there be an Inflamation in the Guts, which may be known by conſtant pain, and increaſing when it is touched, alſo by a Feaver and dryneſs of the Tongue; let blood again, give Clyſters of Roſe Water, with Salt of Lead, and foment the Belly with Oxycrate, or Wine and Water.

Alſo you may give Salt of Lead at the Mouth to ten grains, with Conſerve of Roſes.

Cleanſing Clyſters are made of Barley Water, Bran, red Roſes, Sugar or Honey of Roſes.

But for the greater cleaning and glutinating the Ulcer, ad one dram of Turpentine diſſolved with the Yolk of an Egg. When the Ulcer is more foul, you muſt uſe greater cleaners, as Beets, Pellitory of the wal in the aforeſaid Decoction. The ſtrongeſt Cleanſers are, Centaury, Wormwood, Gentian, Brine or Pickle, from *Galen* 12. Meth. Cap. 1. and the like; the uſe of which is now very rare.

Zacutus Lucitanus durſt uſe Arſenick, and yet with good ſucceſs; as you may ſee Obſ. 18. Lib. 2. of his Admirable Practice of Phyſick.

Some Chymicks uſe of the Oyl of Wax in Clyſters one dram; and anoint the Belly with the ſame.

To glutinate or heal up the Ulcer, firſt uſe gentle Dryers in Clyſters, and a little aſtringent; then

ſuch

ſuch as are more drying and binding. Therefore make them firſt of Chalybeat Milk, in which Roſes have been boyled, or of Barley Water, or Water of parched Rice, and red Roſes one pugil, adding to both Clyſters two Yolks of roaſted Eggs, ſometimes Honey of Roſes; and when you will have it work better, one ounce of the Juyce of Plantane.

To bind and glutinate more, make it thus:

Take of *the Roots of Comphry and Mullein, of each one ounce: Plantane and Comphry leaves, of each one handful: red Roſes, and parched Barley, of each one pugil: Myrtles two drams: Make a Decoction in Ciſtern Water; in one pint of the ſtraining, diſſolve of Honey of Roſes one ounce; one white of an Egg, or one ounce of the Mucilage of Gum Traganth, Goats Suet two ounces: the Juyce of Yarrow and Knot-graſs one ounce. Make a Clyſter.*

Take of *Snakeweed Roots, or Tormentil, one ounce and an half: Shepheards-purſe, Knot-graſs, Horſtail, and Mouſear, of each one handful: Pomegranate flowers, Acorn cups, Cypreſs Nuts, of each two drams: parched Rice one pugil: make a Decoction in Forge Water: in a pint of the ſtraining diſſolve two ounces of the Juyce of Plantane, and two Yolks of roaſted Eggs. Make a Clyſter.*

Angelus ſala wonderfully commends the following Clyſter:

Boyl a Sheeps Head cloven in two, till the fleſh come from the bones, add to the Broth ſtrained of the tops of St. Johns Wort two or three handfuls; Tormentil Roots groſly bruiſed two ounces: Infuſe them three or four hours upon the Embers. Let the ſtraining be twice or thrice given as a Clyſter.

The Juyce of Plantane alone, or with the Milk or Barley Water, is good.

Gum Traganth two drams, or the Infuſion of it in Roſe or Plantane Water, is good to put in Clyſters; or it makes a very good one if it be mixed with Juyce of Plantane and Goats Suet inſtead of Gum Traganth. Or with it you may with profit uſe Gum Arabick, Frankinſence, Maſtich, and Sarcocol. All which being diſſolved in the aforeſaid Liquors, do work by glewing, neither do they exaſperate the Ulcer as the ſtrong Aſtringents. *Amatus Lucitanus* doth much approve Clyſters made of them, becauſe they do cover, as with a Plaiſter, the internal Superficies of the Guts againſt the gnawing of the Matter; he makes them thus:

Take of *Barley Water ten ounces: one white of an Egg well beaten: Gum Arabick and Goats Greaſe, of each half an ounce: Oyl of Roſes two ounces: Bole-Armenick and Gum Traganth, of each one dram: mix them for a Clyſter.*

But leſt thoſe Emplaſtick Clyſters ſhould faſten the ſharp Matter, and ſhut it up by their clamminеſs, you muſt uſe cleanſing Clyſters alſo, which muſt not be long retained; and you muſt ſometimes uſe cleanſing Clyſters intermixed with aſtringent.

In the aſtringent you may put Acacia, Hypociſtis, or Conſerve of Sloes, Sanguis Draconis, Bloodſtone, the Juyce of Maddir taken out with Roſe or Plantane Water, Bole-Armenick, Terra Sigillata, or ſealed Earth, the Troches of Amber, and the white Troches of *Rhaſis* to one or two drams. Other Pouders are hurtful, becauſe they ſettle in the Liquor, and provoke the part to pain.

And it is better to infuſe the aforeſaid Pouders in Liquor, or in a Decoction, and to give them ſtrained.

While you give Clyſters, you muſt give at the Mouth, Medicines of the ſame Nature, and that oftener when the upper Guts are ulcerated, to which the Clyſters cannot reach.

If there be no Feaver, you may profitably, when you intend to cleanſe, give Goats Milk; and when you intend to glutinate, Cows Milk, both with Sugar of Roſes. But Chalybeat Milk, that is, Steel infuſed, doth knit or glutinate better; three ounces thereof with Juyce of Plantane, and Sugar of Roſes, of each one ounce, make an excellent Medicine. Or boyl Comphry Roots in Steeled Milk.

Or make Bread of the fineſt Barley with Yolks of Eggs, and ſet it into the Oven after the Bread is drawn: Crum Milk and Sugar therewith til it is as thick as a Pultis; of which let him take five or ſix ſpoonfuls twice or thrice in a day.

Veal broth boyled very long doth aſſwage pain in the Ulcers.

And Cream of Rice doth heal them up.

Lerius reports in his Hiſtory, That many troubled with Dyſenteries, in a long voyage almoſt ſtarved, and were cured with Rice boyled in Milk with Yolks of Eggs, and Juyce of Ground Ivy.

Alſo you may boyl Rice in Almond Milk, in which Gold hath been quenched.

Cream of Barley with Sugar doth cleanſe and cool.

Broth made of Burnet with Butter, given three daies together morning and evening, doth much further the Cure, and the more if the Decoction of Burnet at the ſame time be given for ordinary Drink.

The Rinds of two greeniſh Oranges boyled in eight pints of Water for ordinary Drink, doth half the Cure.

Of

Of the Pouder of a dead-mans Skul one dram twice or thrice given in Broth or other convenient Liquor doth quickly cure perfectly.

Two spoonfuls of the Mucilage of Gum Tragacanth drawn with Rose Water or Gum Arabick half a dram, may be dissolved in al his Broths; as also one spoonful of the Gelly of Harts-horn is good.

After the Body is wel Clensed, give astringent Decoction to compleat the Cure; which must be made of the Roots of Snake-weed, Tormentil, Comfry, Plantane Leaves, Yarrow, Shepherds-Purse, Horse-tail, Mouse-ear, Agrimony, Plantane and Sorrel Seeds, Sumach, Grape-stones, Red Roses, &c. in Cystern Water; dissolving therein the Syrup of Quinces, Myrtles, or of dried Roses, as also somtimes Acacia Hypocistis, Conserve of Sloes, Bole Armenick, Spodium or burnt Ivory.

The Juyce of Quinces boyled to the consistence of a Syrup or Rob, without an addition given a spoonful or two often is very profitable.

The like Juyces may be made of Pears, Cornel, or Dog-tree Berries, and other sharp Fruits.

Take *the Fat Guts of a Sheep, boyl them till the Liquor come to half a Porringer, then put a little sweet Oyl thereto and let him drink it; if the Dysentery be not very stubborn it cureth it at the first or second draught.*

Oyl and Rose Water given in equal parts do the same.

Let two yolks of hard Egs, and mixed with Rose Water, be taken with Sugar and a little Nutmeg twice or thrice.

The Juyce of Plantane only given, three or four ounces at a time, or mixed with other proper things, is excellent; and if there be an inflamation it allayeth it.

Hollerius saith, That the Juyce of Ground-Ivy taken, hath saved many a mans life.

Juleps of Waters or Decoctions and Astringent Syrups are to be often given.

Syrup of Coral, as also the Tincture and Magistery thereof are very good, which must be taken often in a spoon; Or these following,

Take of *Syrup of Grapes, Myrtles, and of Juyce of Plantane, Quinces, and dried Roses, and Syrup of the Juyce of Purslain, of each one ounce: mix them for the use aforesaid.*

In the end of a Dysentery the Juyce of Wormwood and Mints wel purified, and made into a Syrup with Sugar, is very available: For Mints mixed with Wormwood hath great force to strengthen the Stomach.

And if the Dysentery came by eating much Fruit, in the beginning Syrup of Wormwood with Cinnamon or Treacle Water is excellent, if you at the same time use Fomentations and Emplaisters to strengthen the Stomach.

A Quince made hollow and filled with the shavings of Virgins Wax, roasted under the Embers, given for some few days together, is a most proper Remedy.

Quercetanus makes the same Medicine of Pomum Curtipendulum made hollow and filled with Gum Arabick and Wax, of each one dram, then roasted, and after 'tis eaten let him drink a draught of astringent Decoction.

Others roast a yong Pidgeon stuft with Wax, and give it for a dinner.

The use of Medlers, according to *Forestus*, cures old Dysenteries, lib. 22. obs. 1. which we mentioned in Diarrhœa.

Bruyerinus, lib. 8. de re cibaria, cap. 12. writes that he was Cured of a desperate Dysentery by eating raw Service-berries, by the advice of an Old Woman.

Nor let us omit the Oak Grape mentioned by *Martin Ruland*, which he saith is under the Earth upon the Roots of an Oak in Spring time, of a binding taste outwardly like Purple, inwardly white and like Milk, which dieth in Summer and turns to a stick, and therefore must be dried in the shade, and poudered in the Spring: He saith, That there is no more excellent Pouder to stanch Blood and Dysenteries than this. Also *Encelius, Bauhinus*, and *Skenkius* mention the same.

In every Flux of putrid Humors let the Guts be strengthened with bread twice baked, first boyled in Vinegar and then dried; after it is twice or thrice thus prepared, pouder it, and thicken Broth therewith.

Also there are many Pouders for this: As,

Take of *Snake-weed and Tormentil Roots, of each one dram: Red Coral and Pearl prepared of each half a dram: make a Pouder to be taken one dram at a time in Broth, or the like: You may make it more Astringent with Red Roses, Myrtles, Pomegranat Flowers, Harts-horn burnt, or Ivory burnt, or Troches of Spodium: Or for more Binding, with Sanguis Draconis, Acacia, Galls, Bole Armenick, Sealed Earth, Blood-stone: And if you desire to glutinate, also ad Fleabane-seeds, Starch, and Gum Tragacanth.*

The

The Eaſtern Bole, given one dram in Broth, doth cure the Dyſentery if ſufficient Purging went before. Or,

Take *Pouder of Tragacanth one dram*: *Nutmegs, Coral prepared, of each half a dram*: *mix them, and let it be given at twice or thrice with a rear Egg, or Broth.* Or,

Take of *Gum Arabick one dram*: *Coral and Bole prepared, of each half a dram*: *mix and uſe it as the former.* Or,

Take of *burnt Harts-horn, Bole Armonick, both Corals, all the Saunders and Maſtich, of each half a dram*: *Frankinſence and Tragacanth, of each half a ſcruple*: *mix them for a pouder of which take half a dram often.*

Foreſtus doth highly Commend the following Pouder,

Take of *Citrin Myrobalans and Rhubarb a little parched, of each one ſcruple*: *make a Pouder for one Doſe.*

Herculeſ Saxonia ſaith, That al new Dyſenteries are preſently, and ſurely Cured by this Pouder:

Take of *Cuttle-bone burnt two drams*: *Spunge dipt in Pitch and burnt in a Pot, and of Egg-ſhels the inward skins taken away, of each one dram*: *make a Pouder, the Doſe is one dram in a convenient Liquor.*

The Pouder of Elder-Berries is by Experience approved, it is preſcribed by *Quercetanus* in his Diſpenſatory, and there you may ſee the uſe of it.

You may give Opiates made after this manner,

Take of *conſerve of old Roſes and Quinces, of each one ounce*: *conſerve of Comfry Roots half an ounce*: *Coral prepared one dram and an half*: *Crocus Martis, Bole Armonick, ſealed Earth and Plantane ſeeds, of each one dram*: *Spodium two ſcruples*: *with ſyrup of dried Roſes or Myrtles make an Opiate*; *of which give the bigneß of a Cheßnut twice or thrice in a day*; *Or with an equal weight of Sugar you may make a Compound to be uſed often.*

Mycleta Nicolai is good for the ſame.

Crato wiſely admoniſheth, That before the ſeventh day, before the Ulcers of the Guts are wel clenſed, you give no aſtringents at the mouth, nor externally, but after the ſeventh day you may begin with gentle aſtringents.

Montanus doth wholly forbid them, and uſeth only Clenſers, Aſſwagers of pain and thickners: But when the matter of the Diſeaſe is wel evacuated, the weakneſs of the retentive Faculty by which the Flux is nouriſhed, may be wel taken away with aſtringents.

Therefore it wil be profitable, after ſufficient Purging to give for many days Bole, Terra Lemnia, pouder of Elder-berries, or other aſtringents and dryers with Sugar, till the Patient be wel: but if too much binding ſeem to hurt, you muſt purge again, then bind and after purge; and you muſt obſerve that thoſe Earths do avail too wayes, namely by Binding, and by Oppoſing the evil quality which is in the Diſeaſe: And the Obſtruction which is feared by their uſe is taken away by Sugar mixed with them.

To allay Pain, and heal the Ulcer, this Electuary is beſt.

Take of *the mucilage of Quince-ſeeds, Comfry Roots, and Gum Tragacanth, all extracted with Roſe Water, of each one ounce*: *Starch one dram*: *Red Coral two drams*: *Bole Armonick prepared one dram*; *Pomegranate Flowers half a dram*: *Rob, or conſerve of Services, or Quinces two ounces*: *Sugar of Roſes one ounce*: *make it like an Electuary*: *the Doſe is two drams.*

Narcoticks, or things that bring reſt given at the mouth do wonders, for they take away pain, ſtop the Flux, provoke ſleep, and refreſh the ſtrength: but they are better when they are mixed with Aſtringents and Strengthners. As,

Take of *old conſerve of Roſes two drams*: *Laudanum three grains*: *Confectio Alkermes, half a ſcruple*: *make a Bolus.*

In a Malignant, and Epidemical, or Common Dyſentery, Medicines of Bezoar and Sudorifick, or Sweating Medicines, are powerful; for it is obſerved that by theſe Remedies, that the matter hath been diſcharged, and the Dyſentery cured: Therefore obſerve at firſt the nature of the Humor; for if it be Malignant, as in a Common Epidemical Diſeaſe it is, you ſhal in vain try other Medicines, except at the ſame time, and in the beginning you give Antidotes or Cordials. Here you may uſe al things proper to a Malignant Feaver: And beſides thoſe things that provoke Swear, as Bezoar and Aqua Theriacalis, or Treacle water; Harts-horn, ſealed Earth, Bole Armonick, Unicorns-horn, Coral, Amber, Scordium, St. Johns-wort, Plantane, Tormentil, Burnet, and many others are very good.

Outwardly to the whol Belly apply Oyl of Quinces and Roſes; or if you wil have it more aſtringent Oyl of unripe Olives, or put the third part of Vinegar to them, and boyl them to the Conſumption of the Vinegar: If the Stomach be Affected alſo, adde Oyl of Maſtich, and Wormwood.

After Anointing, Sprinkle the part with some Astringent pouder, made of Myrtles, Pomegranate peels, Galls, Cypress Nuts, Acron Cups, Red Roses, Pomegranate flowers, Frankinsence and Mastich; to which for the more binding, ad Bole Armenick and Terra Sigillata, or Sealed Earth.

Of the same Pouders without the Oyls, you may make an Ointment for the same Use, with a little Wax: Or, You may use Unguentum Comitissæ alone, or with other Ointments.

The Cataplasm prescribed before for Diarrhœa, and this following, if you will Bind strongly, may be used:

Take of *Bole six drams*: *Frankinsence six ounces*: *Sanguis Draconis, Mastich, and Mummy, of each two drams*: *make a Pouder, which you may apply to the Belly beneath the Navel if you mix it with Vinegar and the white of an Egg and lay it upon a Cloth.* Or,

Take *three ounces of Spiders Webs, and one white of an Egg well beaten*: *fry them in a pan, and apply them hot to the Navil.*

A Cataplasm of Treacle and sealed Earth to the Belly, is good in an Epidemical or contagious Dysentery.

This following Cataplasm to strengthen the Liver, is much commended of *Solenander* in every flux, both of the Liver, called *Hepaticus*, and in a Dysentery, and old Diarrhœa. Nor must you fear Astringents, saith he, because they are tempered with things to strengthen the Liver.

Take of *Liver-wort and Schænanth, of each one handful*: *Indian Spike half a pugil*: *Mastich, and Mace, of each half an ounce*: *Lignum Aloes three drams*: *Myrobalans Chebs, and Emblicks parched, of each one ounce*: *Bole, sealed Earth, and Blood-stone, of each six drams*: *Coriander seeds prepared one ounce and an half*: *Spodium or burnt Ivory, two drams*: *Roses one ounce*: *the Species of three Sanders without Camphire half an ounce*: *Rust of Iron prepared one ounce*: *Barley flower two ounces*: *Oyl of Mastich and Myrtles, of each as much as is sufficient*: *make an Emplaister to cover the whol Belly, from the Cartilage called* Ensiformis *or* Xiphoides, *to the* Os Pectinis, *or the Bone at the bottom of the Belly.*

You may also make a Fomentation for the whol Belly of a Decoction of astringent things made in Iron Water, with a little red Wine and Vinegar. Or,

Take of *red Roses two handfuls*: *Wormwood and Mints, of each one handful*: *Nutmeg and Cypress Roots, Mastich and Galangal, of each one dram*: *With a linnen cloth make a bag as big as the belly, which being warmed in red Wine, or Vinegar, may be laid upon the belly.* Or,

Take of *Wormwood, Mints, Plantane, Oak Leaves, and tops of Brambles, Horstail, and Knot-grass, of each one handful*: *Chamomel flowers two pugils*: *red Roses half a handful*: *Myrtles one dram*: *Seeds of Sumach, Plantane, and Coriander, of each six drams*: *Nutmegs three*: *make a Decoction in steeled Water, and red Wine for to foment the Belly.*

Rulandus doth apply a bag of Bran boyled in Vinegar.

If the pain be great, apply a linnen cloth wet in steeled Milk that is warm.

But if Fomentations wil not Cure, you may use Waters to sit in called *Insessus*. These are commended by *Matthew de Gradi*, *Savanarola*, and *Jachinus*, who saith that they are a great secret for the Cure of Children, for by their actual heat they do drive the Humors somwhat towards the Skin; and by their astringent quality stop the flux. But you must not use them if the Body be very full of evil Humors; or if the Dysentery be malignant, and joyned with a Feaver. They are made of Oak buds, green Cypress Berries, green Pine-nuts, or Leaves, Barks, and other such like boyled in Water, of the aforesaid Decoctions for Fomentations.

You may make Fumigations that the Patient may receive the vapor of them through a hollow Chair.

Especially a Decoction made of Mullein, and the Fume thereof received, is commended in this Disease, and also for a Diarrhœa.

Faventinus commends a Fumigation made of Turpentine cast upon a hot Iron, taken up into the Body twice a day.

And he commends also this Fomentation:

Take of *Balm one pound*: *Mullein one handful*: *Put them in a long bag; boyl it well in red Wine and strong Vinegar, and apply it to the Fundament.*

Rulandus useth a Decoction of Acorns in Vinegar for a Fomentation.

And *Faventinus* propoundeth this following Lotion as a secret to stop the Dysentery:

Take of *the dross of Iron, and filings of Steel, both prepared in Vinegar, of each one pound*: *then boyl them in two pints of very strong Vinegar to the consumption of half. Let the Patient put his feet and his hands half an hour every morning and evening therein.*

In a long Disease, and when there are Ulcers in the Guts, Quick-silver is good, if it be mixed with Oynt-

Oyntment of Roſes, and the belly anointed therewith. As alſo the Clyſters aforementioned for filthy Ulcers.

At the ſame time, you may give Milk, and Syrup of Myrtles.

Alſo one dram of true Baliom given in a Wafer doth wonderfully heal al inward Ulcers.

For aſſwaging pain, apply the Caul of a new killed Sheep to the belly, and bind it on, eſpecially to Children, and repeat it often.

If the Liver, Stomach, or Brain, cauſe this flux, you muſt uſe proper Medicines to them, alwaies making choice of thoſe that do aſtringe and ſtrengthen.

For his ordinary Drink, give him Spring Water with Conſerve of Roſes, the Tincture of Roſes, a Decoction of Oaken Leaves, or Water wherein *Terra ſigillata* is infuſed, or wherein red hot Gold hath been quenched with Syrup of Quinces, Myrtles, or dried Roſes. Or when there is no Feaver uſe a weak Decoction of Maſtich with the Syrups aforeſaid. According to *Crato*'s Judgment, you muſt not uſe any chalybeat or ſteeled Drink; for it doth not aſtringe, as commonly they ſuppoſe, but troubleth the belly. Others commend the Decoction of Gramen or Dogs Tooth, becauſe it is good to dry and divert by Urine.

Laſtly, 'Tis worth the Obſervation, which *Ætius* ſpeaks, Lib. 3. Cap. 8. and *Paulus*, Lib. 1. Cap. 35. that old fluxes are dryed up by Venery. Which *Hippocrates* ſaid formerly, 7. Epid. in the end: *Exceſſive Venery doth cure fluxes of the belly.* *Amatus Luſitanus* learned this Truth by Experience, Curat. 41. Cent. 2. *One troubled with a Dyſentery* (ſaith he) *very violently, was married, and the firſt night he lay with his Wife, was cured.*

Let this be added for a Concluſion, which is related in the Cure of Diarrhœa, out of *Platerus* in his Cure of the flux of the Hemorrhoids; Hot Blood of either Man or Beaſt given in a Clyſter, doth wonderfully ſtop and cure the flux.

Chap. 7. *Of Teneſmus.*

TEneſmus, is a continual deſire to go to ſtool, and voiding of nothing but Slime or bloody Matter.

The immediate Cauſe of this Diſeaſe, is an Ulcer in the ſtreight Gut called *Inteſtinum rectum*; from which, Quittor or filthy Matter continually floweth, and ſtirreth up the expulſive Faculty, by which means there is a continual deſire of going to ſtool. Moreover, there is voided a ſlimy Matter mixed with blood, from the depravation of the *Homoioſis* (or quality that converts things into its likeneſs) of the ulcerated part, becauſe it cannot wel concoct its proper Nouriſhment, and make it like it ſelf, but turns it into another ſlimy ſubſtance; as we ſhewed more at large in Dyſenteries, and other Ulcers of the Guts.

But in regard we ſaid in the Chapter of Dyſentery, That al the Inteſtines might be ulcerated in that diſeaſe; thence it ſeems to follow, That the Ulcers of the ſtraight Gut called *Rectum* belong to a Dyſentery. Yet Cuſtom hath ſo prevailed, that when the Rectum is only hurt, it is called by the name of *Teneſmus*: And becauſe when other Guts are affected, if the Rectum ſuffer, there is alſo Teneſmus or needing, although the diſeaſe be then called a Dyſentery; therefore Dyſentery and Teneſmus are of the ſame Nature, and have the ſame Cauſe, and differ only in reſpect of the part affected. And therefore we need not repeat the Cauſes, becauſe they are the ſame with thoſe that produce a Dyſentery.

For the Knowledg of this Diſeaſe, there is no more required but to diſtinguiſh it from a Dyſentery, which you may learn from the definition. For in a Teneſmus, there is a continual needing; but in a Dyſentery it is by fits: beſides, in that, after great ſtraining, there is voided only a little ſlime, bloody or mattery; but in a Dyſentery, both Excrements and Humors are continually voided.

The Signs of the Cauſes are the ſame with a Dyſentery.

As for the Prognoſtick, *Celſus* Lib. 4. Cap. 19. ſaith that a Teneſmus is eaſily cured, and that of it ſelf it never kils any, yet *Galen*, 5. *de uſu partium*, *cap.* 4. reckons it among the chiefeſt Diſeaſes of the Belly; and truly it may very wel be accounted grievous in reſpect of its troubleſomneſs and long continuance; yet it is not dangerous except it come of Melancholly, for then it tends to a Cancer ulcerated: beſides, it brings great inconveniences, as Miſcarriage or Abortion to Women. So *Hipp.* Aph. 27. Sect. 7. ſaith, If a Woman with Child have a Teneſmus, ſhe wil miſcarry. For the continual ſtraining at ſtool doth much diſturb the Womb, which is ſo neer to the ſtraight Gut. Beſides, the ſame Muſcles which ſerve to throw out the Excrements, are imployed for delivery; therefore when they daily compreſs the lower Belly, they cauſe Abortion. Laſtly, the Ulcers of the *Rectum Inteſtinum* being neer the *Anus* or Fundament, if they continue long, turn to an incurable Fiſtula.

The Cure of a Teneſmus, little differs from the Cure of a Dyſentery. And therefore firſt, the ſharp Humors that come from the Liver and other parts, are to be purged with Medicines that leave an Aſtringent quality, as chiefly Rhubarb, which muſt be ſo often given till the Humor ſeem to be ſpent.

If there be an Inflamation (which is chiefly known by a Feaver) or if much blood, you muſt open a Vein. And in caſe it continue after bleeding, and cauſe a ſtrangury or difficulty of Urine (as it often doth) it is very good to open the Hemorrhoids with Horſ-leeches.

Alſo you muſt uſe aſſwaging Clyſters when there is much pain; and cleanſing, glutinating, and aſtringent, according as the Ulcer requireth; the Forms whereof are to be found in the Cure of Dyſentery.

But in the uſe of Clyſters, obſerve firſt, that you give them often, and in a ſmal quantity, only half a pint, becauſe they wil be hardly kept any time, by reaſon of the continual needing. And the pipe muſt be warily conveyed in, leſt the pain be encreaſed.

And you muſt diligently apply Fomentations, Inſeſſions or Baths to ſit in, Fumigations, Suppoſitories, and Oyntments.

You may make a Fomentation thus,

Take of *Mullein & Wormwood, of each ſix handfuls: boyl them in new Milk and put them into two Bags, which apply to the Anus and whol belly one after another very warm.* Or,

Take of *Chamomel Flowers, and Roſes, of each one handful: Red Wine two Pints: infuſe them two hours upon hot Embers: Foment the Fundament as hot as can be ſuffered with four times doubled cloathes: After let the Patient ſit upon a ſponge dipped and ſtrained from the ſame Liquor.*

Or, Fill two Bags with Barley Bran and boyl them in Vinegar: Let the Patient ſit one while upon one, another while upon another as hot as he can.

If he void much Blood, make the Fomentation thus,

Take of *Mullein Leaves and Roots two handfuls: Red Roſes one pugil: Pomegranate peels, and Galls, of each half an ounce: boyl them in two parts of Iron-Water, and one of Red Wine for a Fomentation: which you may make ſtronger if you ad half an ounce of Allum.*

Inſeſſus, or Baths to ſit in to aſſwage Pain, are made of Emollients boyled in Water, or Broth of Sheeps Heads and Feet, to which you may ad Violets, Nightſhade, Gourds, and Mellons ſliced, but for healing of Ulcers you muſt make them of Aſtringents afore-mentioned.

Fumigations are good to dry the Ulcer made of Frankinſence burnt, or the Decoction of Savin made in Oxycrate, or other things mentioned in the Cure of a Dyſentery, the Fume whereof muſt be taken ſitting in a hollow Chair. But this following is Commended by *Foreſtus.*

Take of *Maſtich one dram: Frankinſence one ſcruple: Myrtles one dram and an half: Red Roſes two ſcruples: make a Pouder for a Fumigation.*

Suppoſitories are good in this Diſeaſe, they muſt be gentle and mild, leaſt they exaſperate the part which is ſo ſenſible: They are fitly made of Goats Suet cut into the form of a Suppoſitory; for they appeaſe the pain & heal the Ulcer: but they wil be better againſt Pain if you mix the ſeed finely poudered of Poppies or Henbane, & tye them in a knot in Paper like a Suppoſitory: But far beſt if you inſtead of theſe things put three drops of the Oyl preſſed out of theſe Seeds to every Suppoſitory: or one grain of Opium diſſolved in half a ſcruple of Oyl of ſweet Almonds.

The Ulcer wil be ſooner healed, if you firſt diſſolve the Suet, either alone, or with white Starch, Gum Tragacanth beaten, and firſt ſteeped in Plantane Water, or elſe with ſome Narcoticks: Or, thus,

Take of *Gum Tragacanth as much as is ſufficient, ſprinkle it with Plantane Water that it may only ſwel and not diſſolve; then ad as much of the mucilage of Fleabane ſeeds, or Quince ſeeds, and mix them with the white of an Egg roaſted; then with melted Wax make them into a Suppoſitory: You may alſo ad Narcoticks: as likewiſe to Cure the Ulcer better, the Pouders of Ceruſs, Tutty, Bole, Pomegranate Flowers, and the like, which dry without Acrimony, and ſharpneſs; And theſe muſt be very finely Poudered and ſifted, leaſt the Part be Exaſparated.*

You may apply Oyls and Oyntments as in a Dyſentery, to the Belly and Fundament: As Oyntment of Roſes, Populeon, or of the Mucilages, of the whites of Eggs, Oyl of Roſes, and the like, to take away Pain and Inflamation: and other things that ſhal be mentioned in the Chapter of Hæmorrhoids, or to Cure the Ulcer, the white Oyntment of Rhaſis or Pompholygos, melted in Hydromel, or in Honey and Water.

Laſtly, In a more deſperate Condition, uſe Narcoticks both inwardly and outwardly; but three or four grains of Laudanum is beſt given with Maſtich and Terra Sigillata, or mixed in a Clyſter made of a Decoction of the Flowers of Chamomel.

CHAP.

Chap. 8. *Of* Fluxus Hepaticus, *or Flux of the Liver.*

A Flux of the Liver, is that in which ſerous and bloody Humors like water wherein fleſh hath been waſhed, are voided

This Diſeaſe is produced from the Liver being weak and out of tune; by reaſon whereof it cannot breed good blood, but turneth the Chylous Matter into thin and ſerous blood, which becauſe it is not fit to nouriſh, is ſent by Nature into the Inteſtines, from whence comes this flux of the Liver.

This weakneſs and diſorder may come from any diſtemper: For by the exceſs of any of the firſt qualities, the native heat, and its power to make blood, is dejected. Yet this hath a doubt riſing from Experience, becauſe we ſee often, that great diſtempers of the Liver, and exceſs in the firſt qualities, do produce other diſeaſes, and not this. And again, this flux is many times without the exceſs of the firſt qualities. That therefore the Nature of this Diſeaſe may be declared, we muſt ſay with wiſe *Varandæus* my Maſter, There is ſomthing more than an ordinary diſtemper for producing of this diſeaſe. And it is occult or hidden, conſuming the radical moiſture in the Liver, which alſo deſtroyeth the Natural heat.

This evil diſpoſition, and occult diſtemper may come by burning and ſwooning Feavers by a hot diſtemper of the Bowels, which melteth the Oyly ſubſtance by occult corruption, and corruption of Humors, by a great coldneſs from flegm and Melancholly abounding, which doth oppreſs and corrupt the Natural heat; and it may come by outward Cauſes, as great draughts of cold Water, Snow, or Ice, extraordinary eating of raw Sallets, Poyſon, and Medicines that purge too vehemently. By drinking of too much new Wine, ſalt, ſharp, and peppered Meats, and ſtrong things which parch the ſubſtance of the Liver. To theſe you may add al other Cauſes which by too much cooling or heating do diſſolve the ſtrength and tone or order of the Liver.

Hitherto is declared a true and proper flux of the Liver which hath this ſign, there are Liquid and ſerous ſtools, like waſhings of fleſh, from the weakneſs of the Liver, which cannot ſanguifie or make blood well, or from a malignant diſtemper which ſpoileth the Natural heat and moiſture.

There is alſo a baſtard flux of the Liver, which comes of a ſimple diſtemper without any fault of the radical moiſture; by which diſtemper the faculty is not hurt, but the work hindered, ſo that inſtead of pure blood, there comes impure and corrupt, or the good turns into evil, when in a true of the Liver there is never any good blood in the Liver.

The Blood is corrupted, either by the mixture of Choller, or Melancholly, or ſome other impure Matter, or from its too long ſtaying in the Liver, and the parts adjacent, by which it is made thicker or burnt, or rotteth; or from the fault of the Spleen, which doth not ſuck away the droſſie blood; and in this baſtard flux, ſomtimes thick, ſomtimes black, and ſomtimes blood is voided mixed with Humors of divers colors.

The ſigns of this Diſeaſe may be gathered from what hath been ſaid. For in a true flux there appear moiſt ſtools like waſhings of fleſh, which is not in other bloody fluxes, if in a Dyſentery at any time, it is ſeldom, and then there is choller, flegm, and excrements of divers colors voided: and in a Dyſentery there is pain and torment of the belly, but in this none.

The Signs of the Cauſes are known by their proper Characters: For if the weakneſs of the Liver come from a hot diſtemper, there went a burning and conſuming Feaver before, or there is green vomits or ſtools, thirſt, and a Feaver, foulneſs of Body, and want of appetite, and ſtinking Evacuations; but if it come from a cold cauſe, the ſtools are leſs ſtinking, neither is there thirſt or conſumption; the whol Body is colder and blewiſh.

Somtimes there comes a Feaver from the putrefaction of Humors, which changeth the ſaid ſymptomes; but you muſt examine the Cauſes afore going, which will declare both diſtempers. Alſo in this cold diſtemper the Patients deſire much ſtrong Wine.

A moiſt and dry diſtemper are known by the contrary effects. A moiſt cauſeth more and oftener ſtools, very thin; but a dry, little and thicker ſtools, but there is alſo great thirſt.

Laſtly, The external Cauſes are known by the relation of the Patient, and thoſe that are with him.

A baſtard flux of the Liver hath almoſt all ſigns of a Dyſentery, only there is no pain of the belly, nor pieces of fleſh in the ſtools as in a Dyſentery.

The Prognoſtick of this Diſeaſe uſeth to be evil and deadly; for when a principal part is very ill, by conſumption of the radical moiſture, whoſe reparation is ſcarce to be hoped for, we can expect for the moſt part nothing but deſtruction, eſpecially when the Diſeaſe comes of heat.

When

When this disease comes in Feavers, there presently follows a melting of the Body, and great putrefaction, which presently kils the party: For in malignant and pestilent Feavers the danger is encreased according to the evil condition of the Cause. But when this Disease comes of a cold distemper, it useth to last longer, and turn into an incurable Dropsie.

Lastly, A bastard flux of the Liver, although it be dangerous, yet is it less than a true, because it comes only from a simple distemper and evil disposition of the Humors, the tone and strength of the Liver remaining sound, and may be cured by taking away the Causes that defile the Blood.

The Cure of this Disease is wrought by Medicines that strengthen the Liver, correct its distemper, and stay the flux. And because it comes oftenest of a hot distemper, therefore we wil first speak of the Cure of that distemper, because it comes seldom of a cold Cause, and is to be cured as a Dropsie.

First therefore (although Evacuations seem to be needless by reason of the greatness of the flux) you may give Rhubarb either alone, or with Myrobalans, as in the Cure of Dysentery, because it doth strengthen the Liver, and the rather if you find any filth in the stools: for many Patients have been cured by only one scruple of Rhubarb given many daies together in Conserve of Roses.

Clysters are here of little worth, because the Liver is affected; yet sometimes you may give one of chalybeat or steeled Milk, or of a gentle astringent Decoction, lest the Guts should be too much relaxed.

But you may make Juleps to strengthen the Liver, and correct its distemper, thus:

Take of *Succory, Graminis (or Dogs Teeth) and Sorrel Roots, of each one ounce: Endive, Succory, Plantane, and Dodder, of each one handful: Sea-wormwood half a handful: red Sanders one dram and an half: the shavings of Ivory and Spodium, of each two scruples: Coriander seeds prepared one dram: red Roses one pugil: boyl them to one pint and an half; dissolve in the straining Syrup of Quinces, and simple Syrup of Vinegar, of each two ounces: Make a Julep for four Doses to be taken morning and evening.* Or,

Take of *Plantane Water four ounces: Syrup of dried Roses one ounce: Spirit of Vitriol as much as will make it moderately sharp: make a Julep to be repeated often.*

He may also take of these Syrups following, often in a spoon:

Take of *Syrup of Myrtles, Quinces, and dried Roses, of each one ounce: the Syrup of Succory simple or compound with Rhubarb, one ounce and an half: mix them.*

There is an excellent Syrup made of the Tincture of Roses, made in Rose Water, and with Sugar of Roses brought into a Syrup.

Also this following Pouder given to the quantity of half a dram or a dram once or twice in a day in a rear Egg, Broth, or other fit Liquor may be used with profit.

Take of *Plantane and Sorrel seeds, of each one dram: Endive, Purslane, Dodder, and Coriander seeds, of each one scruple: red Roses, and Troches of Spodium, Gum Tragacanth torrefied, of each half a dram: the inward skins of Hens Gizzards dried, half a scruple: make a very fine Pouder.*

Or the Lozenges made of the three Sanders, with a double quantity of Rhubarb given to two drams at a time, are good to strengthen the Liver; as also this following Opiate:

Take of *Conserve of Succory Roots one ounce: Conserve of old Roses half an ounce: the pulp of Currans six drams: Crocus Martis one dram: prepared Coral, shavings of Ivory, and Harts-horn, of each one scruple: with the Syrup of dried Roses make an Opiate, adding half a scruple of Spirit of Vitriol, of which let him take the bigness of a Chesnut three hours before meat. You may also add the Liver of a Wolf prepared, which is a specifical proper Medicine according to divers Authors.*

Raisons of the Sun, because they are good for the Liver, are commended in this disease, therefore you may eat them in great plenty with their stones: which that they may be better taken, may be beaten first in a Marble Mortar.

Or make a Rob or Syrup of Raisons, boyling them in red Wine, if it be not too hot, and then straining out the Juyce, and boyling it again til it is thick: which you may use alone, or in some of an Opiate, with these following:

Take of *Currans half a pound, boyl them to the thickness of a Pultis in old Wine; pass them through a sieve, and mix with the straining, candied Citron peels half an ounce: the pouder of the three Sanders, and Diamargariton frigid, of each one dram: Coral prepared, and red Roses of each four scruples: the Liver of a Wolf prepared three drams: make an Opiate.*

The Syrup of Coral is very excellent to strengthen the Liver, and stay the flux thereof: but the Tincture thereof is far better: As also the Extract or Magistery given in Plantane Water.

The Juyce of yong Nettle tops given either by it self to two ounces, or with Water and Vinegar every morning for three daies together, stops the flux, and purifieth the corrupt blood.

But

But becauſe in this Diſeaſe the Body is much conſumed, a reſtoring diſtilled Water that wil alſo ſtay a flux, either muſt be given often by it ſelf, or with all other Drinks.

Take a *fat Capon and a Partridg, and pulling of the Feathers and the Guts out, fill their Bellies with Succory, Agrimony, and Snails, of each one handful: Conſerve of Roſes three ounces: Plantane and Coriander ſeeds prepared, of each two drams: Citron Myrobalans one dram: Blood-wort half a handful: the Troches of Amber and of Spodium, of each four ſcruples: the pouder of the Electuary de Gemmis (or precious Stones) the three Sanders, and Diamargariton frigid, of each one dram: Sprinkle them all with aſtringent Wine, and putting them into the bellies of the Fowls: boyl them in a cloſe veſſel in four pints of Water til half be conſumed: then put them al into a glaſs Limbeck with three ounces of good Wine; diſtil them in* Balneo Mariæ *for the uſe aforeſaid.*

For Drink, let the Patient take the Tincture of Roſes, or the Decoction of Succory, and Dogs-tooth, with Syrup of Quinces, and ſome few drops of Spirit of Vitriol.

Things made of Barley, Almonds, and Rice, are beſt in his Meats.

Outwardly to his belly apply thoſe things which were preſcribed in the Cure of Dyſentery, with ſome things for the Liver, as Wormwood, Roſes, all the Sanders, Spodium or burnt Ivory, &c. Which anointings of the Belly muſt reach to the region of the Liver.

You may alſo apply the following Epitheme to the Liver:

Take of *Endive and Succory, of each one handful: Dodder, and both ſorts of Wormwood, of each half a handful: red Roſes one pugil: red Sanders one dram and an half: Spodium two ſcruples: boyl them to one pint and an half, and diſſolve in the ſtraining two ounces of Roſe Vinegar: boyl them again gently, and make an Epitheme.*

Let the ſame part be anointed with the following Oyntment:

Take of *Cerat of Sanders two ounces: Oyl of Quinces, and of Wormwood, of each three drams. Mix them for a Liniment.*

Laſtly, If the Patient be troubled for want of ſleep, as is uſual, becauſe this kind of flux is moſt in the night, you muſt uſe Narcoticks, ſuch as were propounded for the former fluxes.

Chap. 9. *Of the Worms.*

ALthough Worms breed in divers parts of the Body, yet becauſe they are more uſual in the Gut than in other parts, therefore we wil ſpeak only of thoſe.

By ſome it is queſtioned, to what kind of Diſeaſe that is preternatural the Worms are to be referred? But we can take away al occaſion of doubting, by ſaying that after a divers conſideration they may refer to all kinds of Diſeaſes; for as they prick and pull the Guts, or obſtruct them, and produce other diſeaſes, they may be ſaid to be cauſes of diſeaſes. But as they are ſubſtances added to thoſe which ought naturally to be contained in the Guts, they are reckoned by *Galen* in the number of thoſe Diſeaſes which are in the number encreaſed wholly againſt Nature, as the ſtone alſo. And laſtly, as they are ſent out preternaturally by the belly, or the mouth, they are to be referred to the fault in Excretion, or ſending forth.

Galen in his Comment upon the Aphoriſms, Aph. 26. Sect. 3. propounds three kinds of Worms: The round Worms, which are often bred in the Guts, and get often up into the Stomach; the Aſcarides, or little Worms like ſmal thrids, which uſe to lie in the inferior part of the thick Inteſtines, and over againſt the Sphincter Muſcle; and the broad Worms, called *Faſcia*, becauſe they are long and broad like Childrens Swathing bands. This kind is more rare to be ſeen than the reſt, and a Phyſitian ſhall ſcarce ſee them in his practice twice or thrice in a yeer, yet there are great Controverſies among Authors about them; ſome ſay it is one Worm only; ſome that it is made of many united, which they call *Cucurbitinos*, or Gourd Worms, and ſay that they are parts of the broad Worm; others make a fourth kind, containing the Gourd Worms; but we do not intend here to ſhew their Reaſons and ſeveral Experiences they have ſo much boaſted of: the curious Reader may ſearch for his better ſatisfaction, *Rondoletius*, *Platerus*, *Sennertus*, and many others.

Moreover, There is a great Controverſie of the Cauſes of Worms: ſome ſay they come of putrid heat, others from the Natural, others ſay that both concur for the production of them.

The firſt ſay, That all Inſects or Vermine come from corruption, according to *Ariſtotle*. The ſecond ſay, That putrid heat is ſtrong, fiery, and deſtructive, and therefore is not fit to produce a live body. The third ſort, to reconcile the former, ſay that the Matter is diſpoſed by the putrid heat to generate Worms and the Natural heat doth turn it ſo prepared into worms by way of Concoction.

But this Reconciliation wil not hold, becauſe according to the axiome in Phyſicks it is the property of the ſame thing to diſpoſe the matter and bring in the form, and therefore the preparation of the

the matter, and the introduction of the form, ought to be from the same agent; besides, Worms breed in Carkasses where there is no native heat, we may say that the heat which is putrid, in respect of the matter putrifying, is native in respect of the Worms, because the natural and putredinal heat differ but in degree, but divers degrees of heat are required for the generation of divers Creatures; and therefore heat which is putrid in respect of us, may be natural in respect of another Creature: So the heat which is natural to a Lyon, would cause Feavers in us; and by consequence is putrefactive: Many flie to the heat of the Sun which is the universal Cause of al generation; but we must alwayes acknowledge a particular Cause from whence the effect is immediately produced, by the Concurrence and Co-operation of the universal Cause: but here is a greater difficulty, because it is a common axiome or theoreme, That nothing can beget a thing more Noble than it self; and therefore heat is not the chief agent in breeding of Worms which are in the prædicament of substance, and heat is but an accident; and whatsoever is spoken of the Sun, the form of a Worm is more Noble than the form of the Sun, because it is the form of a living Creature; and that of the Sun is *Forma mixta*, or the form of a mixed body only: This Doubt brings us into that large and weighty Disputation of an Æquivocal Generation, in the Circuit whereof very excellent Philosophers have Writ whol Volumns, to which we send our Reader, and chiefly to *Fortunius Licetus* his Book of the *Spontaneous Generation of Living Creatures*: Let it suffice in this place to say that many of their Opinions are brought to this, They believe Seeds of many things to be in divers Substances, which according to their divers Changings, come to light; even as the matter is more or less disposed by putrefaction, or other alteration to receive this or that form: and the Seed which is more agreeable to that Disposition is brought into act, and bringeth into the matter a form proper to its self. This Opinion doth not much differ from the old Philosophy, which teacheth, That Forms proceed from the power in the Matter: but they think it safer to hide the Seeds of things in their Matter, which are truly efficient, than to acknowledge only the power of the Matter, which hath no power to be an efficient, for we must find out some efficient with the power in the Matter which may raise a Form from it, or rather introduce, or bring a Form into it.

The material Cause of Worms is commonly sweet Flegm which groweth putrid, by which it gets a Disposition to be turned into Worms; but we think it no wayes necessary, that food which wil breed Worms, should be first turned into Flegm: For Worms may breed of their immediately being putrified, as we see in Flesh, Cheese, Chestnuts, Apples, Pears, Cherries, and other Fruits which bring forth Worms by being putrified: So it is in our bodies, especially in Children which are given to Gluttony and eat the aforesaid things, and take new commonly before the old is Concocted. Hence is it that they putrifie and breed Worms.

But let yong Physitians observe this, It is daily observed in Practice, That Sucking Children, that eat meat are most troubled with Worms, and because their Stomachs are not able to digest it, therefore it is corruption and turned into Worms; moreover, Milk is quickly digested in the Stomach, and presently sent to the Guts; and if it hath meat mixed with it which could not so suddenly be digested, it wil be sent into the intestines with the Milk, and therefore corrupt and breed Worms. And observe, That Worms never breed of Milk only, so that as often as you consider the Disease of an Infant, take notice, Whether it have the Worms or no, which Women alwayes proclaim and say al their Diseases came from thence, as they ascribe al the Diseases of Women to the Mother; and the Physitian may certainly pronounce that the Child hath not the Worms, if it live only upon Milk, and have eat neither meat nor Broth: *Galen* in his *com. aph.* 26. *sect.* 3. taught this, saying, That in Children that Suck milk only no Worms do breed; the Reason whereof is not plain. Many say, That in sucking Children the Heat is not strong enough to breed Worms. And this is confirmed by *Galen* in the place cited; where he saith, That strong Heat is required for the Generation of Worms; and thence he saith it comes that Worms are more in Youth, than Infancy; which also *Hippocrates* teacheth in the Aphorism aforesaid; and which he seems to gain-say in *lib.* 4. *de morbis*, where he saith, That Worms breed in Children before they are born; but these have not stronger heat than they that suck: And *Hippocrates* gives another Reason why Children in the Womb should have Worms, because their Excrements are reteined; but when they are born they do not breed Worms, because then their Excrements are not reteined. But this wil not satisfie, because oftentimes in Children that Suck the Excrements are reteined, and yet they have no Worms while they live only upon milk; therefore since the aforesaid Reasons do not content solid wits, we expect the new Thoughts of Wise men touching this matter; and in the mean while, we wil briefly declare our Opinion, and leave to the Judgment of the Learned: We say then, That Milk putrifying doth grow sowr, and then is unfit for to breed VVorms, but rather hindereth them; for it is known that al sowr things do kill VVorms: Hence it is that the Juyce of Lemons is so ordinarily given against them, and in ordinary drink a little Spirit of Vitriol to sharpen it doth wonders.

It is Commonly thought, That among the Material Causes of Worms, Sweet things are the chief; which is to be doubted of, because it is confirmed by a Common Axiome, That Sweet things do easily

turn

turn into Choller, and Choller by its bitterneſs doth kil Worms: but we can eaſily anſwer this doubt thus; In Chollerick Bodies, and ſuch as are ſharp with heat, ſweet things do eaſily breed Choller, becauſe by over Concoction, they grow bitter, as we ſee dayly in artificial Concoction: but in other Conſtitutions that are not Chollerick, ſweet things do not breed Choller, but rather flegm, when they are ſent too ſoon from the Stomach into the Guts, and ſo being crude, and only half concocted, they putrifie, and become a fit Matter to breed Worms.

But there is yet a difficulty concerning Sugar and Honey, which ſince they have a ſubſtance not ſubject to Putrefaction, but rather that doth preſerve other things from it, cannot breed Worms. This Reaſon convincing, we ſay that Sugar and Honey will not breed Worms, becauſe their ſubſtance is incorruptible; but being once bred, they do feed and maintain them, becauſe the Worms loving ſweet things, do ſtir themſelves at the approach of Honey and Sugar, and get into the Stomach, where they grow with ſpeed; from whence thoſe Symptomes do ariſe which are proper to Worms.

The ſigns of Worms in the Guts are divers; not all in all people alike. The uſual and moſt ordinary ſigns, A ſtinking Breath ſomwhat ſowr, as the women call it, and ſtools like Cow dung, of a gray color like Potters Earth diſſolved. Other ſigns are leſs uſual, as a continual Feaver, which is often in a day, more violent from the motion of the Worms, with heavineſs, cold ſweat ſometimes, and fainting, loathing, vomiting, and unquenchable thirſt. The Pulſe is unequal, the Cheeks are by turns red or blew, the Eyes ſhine, the Noſe itcheth, the Teeth gnaſh, and ſometimes chatter, there is a ſmal dry Cough, much Spittle: ſometimes there is heavineſs of head, and ſleepineſs; ſometimes doting, and Epileptick Convulſions. There is often a pain in the Belly, by gnawing, ſometimes by inflamation and diſtenſion or ſtretching forth like men in dropſies: ſometimes there is ſtarting in the ſleep, and ſome tremble, and riſe up, and fall aſleep again; ſometimes all the body pineth, and the Patient hath a Dogs Appetite, inſatiable, which is moſt uſual in the flat worms, which eat up all the Food. Moreover, If Gourd Worms, called *Cucurbitini*, be voided, they are a ſign of flat. The Aſcarides are known by the itching of the Anus, or Fundament, and the Excrements are many times filled with them.

For a Concluſion, The conſuming, putrefaction, and eating away of the Gums, is to be reckoned among the ſigns of the Worms, which is confirmed by this following Obſervation: A certain Boy was a long time troubled with eating away of his Gums, many Medicines both internally and externally were applied, and all in vain; at length he died: The body being opened, there were found ſo many Worms, that in ſome places the bowels were eaten through, and many were found in the empty places of his Belly.

As for the Prognoſtick: Many Worms are worſe than few, great than little. Many times they are dangerous, and bring great Diſeaſes; as a ſtrong Feaver by fits, ſwooning, ſpeechleſsneſs, doting, epilepſie, chollick, and dogs appetite.

In the beginning of a diſeaſe, it is evil for VVorms to come forth, either alive or dead, eſpecially if they come forth alone, and without dung; for when they are alive, and come forth, they ſignifie great crudity, or want of nourithment; but dead, they ſignifie great putrefaction, by which they are killed.

VVorms in the declining of a Diſeaſe, coming forth with the Excrements, ſignifie Health, if concoction appear; for it appears then, that Nature ruleth and maſtereth the Excrements.

The Cure of the Worms is by driving them out, becauſe they are wholly againſt Nature. And this is done by purging Medicines, which kill VVorms, and evacuate the Matter that breedeth them.

Rhubarb is the beſt, which you may give in a Flux or Feaver. But you muſt firſt give things that kill them, or at leaſt that drive them to the inferior Inteſtines by things taken at the Mouth, or thoſe things that draw them down by Clyſters.

The uſual forms whereof, are theſe:

Take of *Dogs-tooth, and Purſlane Water, of each one ounce and an half: Syrup of Lemmons one ounce: Confectio de Hyacintho one dram: the Pouder againſt Worms, one ſcruple. Make a Potion; give it preſently, and then this Clyſter:*

Take of *whol Barley, Bran, and red Roſes, of each one pugil: Liquoris and Raiſons, ſcraped and ſtoned, of each half an ounce: Boyl them to half a pint, or three quarters of a pint: Diſſolve in it ſtrained, red Sugar one ounce, and one Yolk of an Egg. Make a Clyſter.*

You may ad Caſſia, or Diacatholicon, if you deſire it ſtronger.

After thoſe Medicines have been given once or twice, give this Potion:

Take of *Rhubarb one dram: yellow Sanders half a ſcruple: infuſe them in Water of Dogs-tooth or Purſlain, two or three ounces: ſtrain them, and diſſolve in it, the pouder of Rhubarb, and pouder againſt the Worms, of each one ſcruple: Syrup of Roſes one ounce: Mix them for a Potion.* Or,

Take of *the pouder of Rhubarb and Coralline, of each half a dram, more or leſs, according to the age: Dogs-tooth Water two ounces: Syrup of Violets one ounce. Make a Potion.*

If the Feaver be not great, two drams of Hiera Picra more or less, are to be mixed in a Potion: for by its bitterness it killeth and expelleth Worms excellently.

If these things will not Cure them, use these following:

Take of *Dogs-tooth, and Sorrel Water, of each one ounce: Endive, Succory, Sorrel, and Purslane, of each one handful: the tops of St. Johns-wort, Scordium (or Water Germander) and Centaury the less, of each one pugil: Coralline three drams: boyl them to a pint; dissolve in the straining three ounces of Syrup of Lemmons. Make a Julep for three or four Doses, to be taken twice in a day.*

Take of *the Oyntment de Artanita, or (Soubread) three ounces: Quick-silver one dram: mix them, and anoint the whol belly.*

Then purge again, and often, till the body be clensed.

And you may ad to the former Decoction, Senna, Agarick, Rhubarb, &c. and give it but once in a day.

Rondoletius highly commends the Electuary Diacarthamum, as an excellent Remedy to expel Worms, and to purge Flegm and corrupted Chyle, of which worms breed and are nourished; as also he commends the infusion of Agarick in Oxymel. Which Remedies are proper, if there be no Feaver.

But because often times the diseases of the worms in some Children cannot be cured without much labor and time, there are many Remedies found out by Authors, both internal and external.

Among the Internal, first we will treat of Pouders, whereof there are divers Forms in Authors.

The chief are these following; the dose whereof, is from one scruple to a dram, according to the age of the Patient in some convenient Liquor.

Take of *Worm-seed half an ounce, Coralline three drams: Harts-horn two drams. Make a Pouder.* Or,

Take of *Worm-seeds, Coralline, and Harts-horn burnt, of each equal parts.* Or,

Take of *Hiera simplex two drams: Worm-seed, Scordium, the lesser Centaury, and Coralline, of each one dram. Make a Pouder.*

Take of *Rhubarb and Agarick, of each one dram: Troches of Alhandal one scruple: Diagridium half a scruple: Coralline and burnt Harts-horn, of each half an ounce: Myrrh, Zedoary, and Tansie flowers, of each one scruple: Salt of Wormwood and Tartar, of each half a dram. Make a fine Pouder.*

In the use of these Pouders, observe that they which are made of hot things, are to be given seldom, and in smal quantities to hot Natures, and in Feavers.

VVomen use to give to Children troubled with the worms, VVorm-seed made up with Sugar, or mixed with Honey; which is an excellent Medicine, because the worms desiring sweet things, take in the Honey, and withal the VVorm-seed, whereby they are destroyed.

But because VVorm-seed is very hot, it may be made temperate by infusing it two hours in Vinegar, and after mixing it with boyled Honey into the form of an Opiate, which *Amatus Lusitanus* doth praise as a principal Medicine against VVorms.

Burnt Harts-horn is commended by *Forestus*, given with Raisons, or otherwise, and some have been cured with that alone. But it is chiefly good for them who have the worms, and a flux withal. In which diseases coming together, he commends also the Juyce of Plantane, and the Decoction of Knot-grass given to drink. To which may be added Topicks applied to the Belly, partly astringent, and partly having vertue to kill worms.

Women do use common Oyl given with Wine, for that Oyl stops the pores of the Worms, and so choak them for want of breath, and VVine kills them by its sharpness. But when there is a Feaver, it is better to give Oyl with the Juyce of Lemmons or Pomegranates; or which is better, Oyl of bitter Almonds with the said Juyces, or Orange flower water.

Stocherus in his Empirical Medicines, commends the Oyl that is taken out of a dried Hazel stick, if it be given but a drop or two at a time to a child; or to a youth, three or four in a crum of Bread; *For* (saith he) *it doth immediately kill them, and cast them forth by stool; also by but touching of Worms or Lice out of the Body, it killeth them.* The best Authors will have this Oyl of Hazel to be the *Oleum Heraclinum*, by which *Martin Ruland* did cure Children of the VVorms in a moment, by anointing only their Lips and Navils, as you may see in his Centuries.

But we have found by Experience that the Oyl of Juniper given but a drop at a time in Broth, to be excellent for children so troubled, if they have not a Feaver.

But Quick-silver would exceed all, if we durst give it inwardly; which great Doctors say may be done. Some of whom I wil mention, so that they who please to try it, may have Authority for it.

Mathiolus in his fourth Epistle to *Stephanus Laureus*, the Emperors Physitian, saith, *Because Quick-silver (as* Dioscorides *saith) doth no otherwise kill, but by tearing the Guts with its great weight:*

weight: we fear not that it will do it in a smal quantity, especially because its weight and roundneß will easily carry it through the Body. Therefore let us not wonder why Brassavolus *that famous Physitian of our Age, hath written that he gave Quick-silver to Children without any inconvenience. And also a* Padua *Physitian used it with good succeß, but never would tell us the way of giving and preparing of it. And I, though I never gave it, have seen Midwives give a scruple, or half a dram to Women that had hard labor, without inconvenience, and alwaies with good succeß.* Thus *Mathiolus.*

Fallopius in his Tractate of the French Pox, Cap. 76. *If* (saith he) *Quick-silver be drunk down, it doth not so much as when it is used with an Oyntment; I have seen Women to cause Abortion take a pound thereof without hurt. I give it to Children for the Worms, and it doth bring no symptome, but only kill the Worms.*

Platerus in the Cure of the Worms, saith the same; *Give a drop or two, or half a scruple of Quick-silver, and it kills the Worms, or makes them crawl out of the Body, and it may be done without hurt, as we shewed elswhere.*

Fabricius Hildanus in his 71. Observation, Cent. 2. saith, of a woman troubled with the Worms, sent to him by *Gilbert Saracenus*, thus: *Having reckoned up many Medicines to these* (saith he) *I added the excellent Medicine of Quick-silver, a dram and an half strained through Leather, and yet she was not freed of them.*

John Baptista Zappata, in his Book of Womens Secrets, Chap. 5. tells many famous Stories of the Cure of Worms by Quick-silver, when Aloes and VVormwood would not do it. He shews two waies of giving it.

The first is this:

Take of *Quick-silver one dram, but a scruple or two for little Children: Benjamin half a scruple: four or five drops of Aqua vitæ, mix them in a glaß mortar with a glaß pestle; then put to it a little Conserve of Roses or Violets for a Bolus, which let the Patient take in the morning by it self, or with a little Bread.*

The second way is this:

Take *a little course Sugar, and three or four drops of Spring Water: mix them in a glaß mortar till they are like Honey: then put to it as much Quick-silver as was aforesaid: mix them together, with six or seven drops of Oyl of sweet Almonds, which will keep the Quick-silver from coming again to its body: And with a little Conserve of Roses, make a Bolus.*

Baricellus in his Book called the Genial Garden, saith thus: *Quick-silver, which some account poyson, is safely given against worms, and it is accounted so certain a Medicine in* Spain, *that the Women there give three grains thereof to children which pewk up their milk. I cured a Widdow which vomited nine dates together by reason of Worms, and scarce eat in three daies, neither could retain any thing she took; to whom I gave two scruples of Quick-silver, with a little Conserve of Quinces, and she voided downwards above an hundred Worms, and was cured the same day, and went about her buſineß, to the great admiration of her Parents, being formerly weak and lean. I have given it also to others, and with good succeß alwaies; and I keep continually at home, Quick-silver infused in Water, which Water I give to children for Worms; nor did I ever receive any discredit thereby.* Mathiolus *used the same,* Horatus Augenius, *and many other famous men, who all do extol the benefit of this Medicine. You may give it to Children in substance, one scruple, and to youths two scruples or a dram. It is mortified and corrected with red Sugar, in a glaß mortar, wherein it must be so long stirred that it be invisible, and least it should return to its former condition, you may add thereto two drops of the Oyl of sweet Almonds. Give it with Sugar of Roses Violets, or Quinces, fasting.* Thus *Baricellus.*

Sanctorius in meth. vitand. error. lib. 5. cap. 11. saith, *That except we use strong Medicines to kill worms, as washed Aloes, or a scruple of Quick-silver, with a little Turpentine and Aloes made into a smal Pill, we do nothing.*

They who fear to use Quick-silver crude, may give it prepared, as *Mercurius dulcis*, not only thrice, but six times calcined (for by often preparation the malignity of it is abated) with some few grains of Diagridium, to carry it sooner out of the Body, and expel both the Worms, and the Matter of which they breed.

You must enlarge or diminish the quantity, according to the Age of the Patient. As for example, to a Boy of eight or ten yeers old, it may be thus given:

Take of *Mercurius dulcis twelve grains: Diagridium six grains: Make a Pouder to be given with a roasted Apple and Sugar, or the like.*

For ordinary drink, the Water made of Quick-silver, which was formerly mentioned, is very profitable, or that in which Quick-silver hath been shaken in a glass half full, for the space of one hour.

Also VVater wherein melted Tin hath been often quenched. But if you will rather use

Qu'ckſilver, it is better to let the Water boyl with it, and ſo it wil be ſtronger.

Alſo Spring Water made ſharp with ſome few drops of the Spirit of Vitriol or Sulphur, is of no leſs force. For ſharp things do properly kill VVorms, and the Water is to be made more or leſs ſharp according to the age of the Party.

The Decoction of Dog-tooth with Coriander ſeed prepared, is uſed vulgarly for ordinary drink, mixed with Syrup of Lemons or of Pomegranats; Or you may put Sugar and a little Vinegar in the Decoction.

While the aforeſaid Remedies are uſed, you muſt give Clyſters often the whol time of the Diſeaſe, firſt made of ſweet things to attract and draw down the VVorms, as at firſt we ſaid: which may be made not only of a Decoction of Liquoris, Raiſons, and Figs, but alſo of Chicken-broth and Sugar, and Honey of Roſes, or of Milk if there be no Feaver, otherwiſe it wil be eaſily Corrupted.

But if we conjecture that the VVorms are already in the thick Guts, becauſe then they can ſcarcely aſcend into thin Guts, you may give Clyſters to kil them, made thus:

Take of *Dog-Tooth Roots, one ounce: Beets, Mallows Pot Mercury, and Purſlain, of each half an handful: Coralline one pugil: Coriander ſeeds prepared, and Wormſeed, of each two drams: boyl them in a Quart of Water, in one Pint of the ſtraining diſſolve two ounces of Oyl of Roſes, Caſſia newly drawn, ſix drams: Hiera Picra, two drams: Honey of Violets one ounce: make a Clyſter.*

If you wil have a ſtronger,

Take of *Gentian Roots one ounce: common Wormwood and Southernwood, of each one handful: the leſſer Centaury half an handful: Lupines half an ounce: Wormſeed two drams: make a Decoction: In as much of the ſtraining as you think fit, diſſolve the Oyl of Wormwood one ounce and an half: Salt one dram and an half: make a Clyſter which muſt be repeated, and in the laſt that the Worms may be brought forth after they are killed, diſſolve of Benedicta Laxativa, and Hiera Picra, of each three drams, or half an ounce.*

If there be a Flux of the Belly, give this following Clyſter:

Take of *Tormentil Roots, and of Round Birth-wort, of each one ounce and an half: Pomegranate Peels and Myrobalans, of each one ounce: Peaſe a ſmal handful: Myrtle berries one dram: Red Roſes one pugil: make a Decoction and diſſolve in the ſtraining of Oyl of Mints or of Wormwood, one ounce: make a Clyſter.*

Outwardly may divers Topicks be applied, not only thoſe that were mentioned, but theſe following.

Take of *Gentian Roots one ounce: Birth-wort Roots ſix drams: Orange Peels one ounce: Coloquintida one dram: burnt Harts-horn two drams: Saffron half a dram: make a Pouder, which mix with Oyl of Wormwood, or Bitter Almonds, and with a little Wax make an Unguent.*

Alſo common Oyl boyled with the Pulp of Coloquintida is powerful.

Alſo Oyl of Wormwood, and St. Johns-wort, muſt be applied to the whol Belly, morning and evening.

Take of *Oyl of Wormwood, Mints, and bitter Almonds, of each half an ounce: the Juyce of Wormwood and Rue, of each two ounces: Tormentil, white Dittany, and Zedoary, of each half a dram: Ox Gall three drams: Aloes one ſcruple: Pouder them, and with a little Wax make an Oyntment:* Or,

Take of *Coloquintida ſix drams: Pouder it, and with an Ox Gall lay it to the Navel, by which both the Worms are killed, and the belly kept looſe.*

Take of *Myrrh ſeven drams: Maſtich eight ounces: Aloes eighteen ounces: common Salt one pound: bruiſe them all and Diſtil them by a Retort with a gentle Fire, and great diligence; firſt you will have a Water, than an Oyl; with which if you anoint the Navel of a Child, all putrefaction will be clenſed which is in the Myſentery.*

Alſo you may make a Cataplaſm thus,

Take of *the meal of Lupines two ounces: Myrrh and Aloes, of each two drams: Ox Gall as much as is fitting: Oyl of Wormwood two ounces: make a Cataplaſm for the Belly.*

If a Looſeneſs hath Continued long, apply this following Cataplaſm:

Take of *Oyl of Quinces and Wormwood, of each one ounce: the Juyce of Purſlain extracted with Vinegar, one ounce and an half: Peaſeflowr an ounce: Lupine flowr half an ounce: Red Coral and burnt Harts-horn, of each three drams: mix them together with as much Turpentine as wil make a Cataplaſm.*

A Cataplaſm alſo made of only Hiera Picra, is moſt powerful.

Sometimes you may uſe Fomentations, when there is a great ſtretching and puffing up of the Belly. Made thus:

Take

Take of *Wormwood, Southernwood, Tanſie, Scordium, Mallows, and Violets, of each one handful: beaten Lupines half an ounce: Centaury one pugil: boyl them in Vinegar and Water, and Foment the whol Belly hot therewith very often.*

Finally, For Flat VVorms and *Aſcarides*, or Arſ-Worms, Clyſters made of bitter things are good; to which you may ad the Purging things aforeſaid, while the filth of which they breed be purged away.

Chap. 10. *Of the Immoderate Flux of the Hæmorrhoids.*

ALthough the moderate Flux of the Hæmorrhoids be healthful, and preſerveth a man from many and grievous Diſeaſes, as *Hippocrates* taught in Epidemii, and in his Aphoriſms, as from a Pleuriſie, Peripneumonia, or Inflamation of the Lungs; Nephritis, or the Stone in the Kidneys; Madneſs, Melancholly, and innumerable other: Yet the immoderate Flux is moſt dangerous, and brings other pernicious Diſeaſes, as Weakneſs of the whol Body, Coolneſs of the Bowels, and eſpecially of the Liver; an Atrophy or want of nouriſhment, an evil Habit, and Dropſie by the loſs of Natural Heat, by ſpending too much Blood which is the treaſure of Life, and the cheeriſher of the whol Body.

And this Immoderate Flux hath the ſame Cauſes which uſe to provoke other ſorts of Bleeding: namely, Blood offending in Quantity or Quality; when it offendeth in Quantity, and is brought in great plenty to the Hæmorrhoid Veins, it doth violently dilate them and open their Orifices, by the ſtrength of the Expulſive Faculty: but ſomtimes too much Blood coming thither, doth oppreſs the Retentive Faculty.

Hence it comes that ſhe being Defective in her duty, there is a great Flux which muſt be reſtrained by art.

But while Blood offends in Quality, as ſharpneſs or thinneſs, it ſtirs up the Expulſive Faculty, to caſt forth by thoſe Veins not only the unprofitable but profitable Blood, the Blood Cauſing this Flux is made ſharper by a mixture of Choller, or ſharp Water.

This immoderate Flux is known by the loſs of Strength, and a Senſe of Weakneſs coming from a long Flux and loſs of Blood: As alſo from an evil yellowiſh colour of the whol Body, as if it were the Jaundice.

If the Diſeaſe come from Quantity of Blood, there went before Cauſes of increaſe of Blood, and the Patient bears it wel in the beginning, and is more cheerful; but afterwards the Flux continuing, he grows weak, and dejected.

But if it comes from ſharpneſs and thinneſs of the Blood, there went before Cauſes that breed choller or ſharp Water, the body is of a Chollerick Conſtitution and burnt: the blood floweth violently, and it is very red, ſhining, and as it were flaming, when otherwiſe offending only in Quantity it uſeth to be black and Melancholly.

The Prognoſtick is gathered eaſily from what hath been ſaid, when we reckon up thoſe grievous Diſeaſes which come from this.

For the Cure, The Blood muſt be ſtanched, or moderated at leaſt, which muſt be done by Revulſives, Derivatives, Thickners, and Aſtringents.

And firſt, Phlebotomy is a Revulſive Remedy in every Flux of blood, therefore in the Hæmorrhoids thus flowing, draw blood from the Arm; and more plentifully if there be ſigns of fulneſs and much hath not been loſt, otherwiſe take but little, and at divers times.

Alſo Frictions and Ligatures of the Superior parts do revel the blood, as alſo Cupping Glaſſes applied to the Shoulders, Breaſts, and Hypochondria, which for the better Revulſion may have Scarrification in the Shoulders, but they muſt be often applied to the places afore-mentioned.

Alſo a Gentle Purge doth derive the Chollerick Humors which make the blood ſo violent in the Guts; and this muſt be made of Purging things that have an Aſtringent Quality, as Rhubarb, Myrobalans, and Tamarinds, ſuch as were preſcribed againſt Vomiting of Blood: And *Mercurialis* teacheth, That Tamarinds have an eſpecial power to ſtop this kind of bleeding, whether they be taken boyled or in ſubſtance.

Alſo ſharp French Pruens which are ſomwhat like Tamarinds being often eaten afore meat, are good: and their uſe is convenient to keep the body looſe, and if theſe wil not ſuffice you may ad other things which were propounded for the Cure of a Belly bound, becauſe by uſe of Aſtringents the belly wil be bound, and by it raining to diſcharge the Excrements that are hard, the Veins wil be more open and bleed more.

Afterwards

Afterwards you must use those things that thicken the Blood, and astringe the loose Veins, such as were prescribed for vomiting and spitting of blood, in form of a Julep, Pouder, Opiate, and the rest; coming to Narcoticks, as is there said, if great need require.

And besides those Remedies, the Pills of Bdellium are much commended by Authors; which *Rondeletius* rejecteth, because the Apothecaries have not true Bdellium, and use Myrrh instead thereof, which causeth bleeding. But *Solenander* opposeth him, saying by Experience, that he hath found these Pills make of ordinary Bdellium, so cleerly to produce their effect, that he wil not doubt of the composition. Except some should think that the Myrrh is made dull by drying things, and astringents that are mixed therewith. To this we may add what *Bauderon* in his Dispensatory, and other Modern Writers say, That we have true Bdellium brought from *India* at this day, which is hard to be distinguished from Myrrh.

The use of these Pills, is after this manner:

Take of *Pills of Bdellium one dram: the Troches of Amber, and Terra sigillata, of each one scruple: With the Mucilage of Quince seeds extracted with Rose Water. Make a mass of Pills, of which let him take a scruple twice a day, before Dinner and Supper.*

At the same time you must use Topicks made after divers forms.

A Fomentation of Mullein boyled in Smiths VVater, or astringent VVine, is best; for that Plant is proper for the pain and bleeding of the Hemorrhoids. But you must diligently observe in the use of Fomentations, that they be either cold, or moderately hot.

A more compound Decoction may be made thus:

Take of *Snakeweed Roots half a pound: Plantane, Mullein, Bramble and Oak buds, of each two handfuls and an half: Sumach berries, Pomegranate flowers, green Galls, and Pomegranate peels, of each one handful: Myrtles half a dram: red Roses two pugils: Allum one ounce: boyl these in three parts of Forge water, and one of old red Wine, for a Fomentation.*

Martin Ruland commends a Fomentation made of two bags, applied hot by times, made of red cloth, and filled with beaten Acorns and Oak Leaves, and boyled long in strong Vinegar.

Of the Decoction before mentioned, with a greater quantity of every Simple, you may make a Bath to sit in, which the sick man must use somwhat cold, as is said of a Fomentation.

Unguentum Comitissæ is very good, if you anoint the Back and Hemorrhoids therewith: or you may make for the present this following:

Take of *Oyl of Roses, Olives, and Myrtles, of each two ounces: the Juyce of Plantane and Mullein, of each one ounce and an half: red Wine Vinegar one ounce: boyl them till the juyces are consumed: then add of Bole, Sanguis Draconis, Frankinsence, and dross of Iron finely poudered, of each one dram: Wax as much as will make an Unguent.*

Rondoletius approves rather of those Oyntments which are made without Oyl, because they are more astringent: and they are thus made:

Take of *the Juyce of Plantane, Shepheards-purse, and Mullein, of each two ounces: the simple Syrup of Vinegar three ounces: boyl them gently; then add of Bole, Terra sigillata, and Snakeweed Roots poudered, of each one dram and an half: Sanguis Draconis one ounce: Ceruss washed two scruples: mix them in the form of a Liniment.*

If the Hemorrhoids be ulcerated, you may make this following:

Take of *Oyl of Roses two ounces: Frankinsence and Aloes, of each one dram: Sarcocol, Sanguis Draconis, and Bole, of each half a dram: Spodium, and Carabe, of each one scruple: white Starch three drams: Juyce of Plantane one ounce. Make an Unguent.*

The Fat of an Eel, which comes out when it is roasted, put to the Oyntments, makes them better by a proper Vertue.

Also you may with profit apply a Cataplasm to the said parts, made thus:

Take of *Bole, Aloes, Mastich, Frankinsence, and Sanguis Draconis, of each half an ounce: the stones of Myrobalans, and Galls, of each one dram: mix them with the white of an Egg, and Juyce of Plantane. Make a Cataplasm.*

Or the Hairs of an Hare burnt, and Spiders webs mixed with the white of an Egg, will make a Cataplasm, which you must apply to the Vein where it is open, if it appears, or put it gently in.

Suppositories are good for this use, because they are put up into the part.

The Form of them is,

Take of *Colophony, and Frankinsence, of each three drams. Bole half an ounce: Ceruss and burnt Lead, of each one dram: Acacia half a dram: pouder them finely, and make them into a Suppository with Goats Suet.*

Make Injections into the part by a Syringe of the Juyce of Plantane, and other things mentioned for a Fomentation. The Blood of any Creature newly drawn, and injected while it is hot, doth wonderfully restrain any flux of blood from the belly.

The

The Lungs of a Sheep being hot and bloody, being ſat upon, have great power to ſtop this Blood.

Alſo Fumigations made of the Decoctions of the Fomentations aforeſaid, are good for the ſame end. To which you may ad thoſe things mentioned in a Dyſentery. As alſo this following:

Take of *Frankinſence, Aloes, Maſtich, red Roſes, Myrtles, and Wormwood, of each half a dram: Troches of Carabe one dram: Make a groſs Pouder to be caſt upon the hot coals; and let the fume thereof be received in a large funnel by a hollow chair, tying a wooden or ſilver pipe to the narrow hole, and putting it into the Fundament.*

A Fumigation made of Mullein, is the beſt of all.

If you can apply Remedies to the Veins that bleed, it is beſt therefore that they may appear And therefore let the Patient be laid upon a Table, and ſtrain as if he were at ſtool till they appear; uſing an Inſtrument if there be need. And then apply the afore mentioned Cataplaſm of the Hair of an Hare and Spiders Webs, or other very drying Remedies; Bole, Allum, or burnt Vitriol. Alſo to touch the Vein with Oyl of Vitriol, is good; or in extream danger with *Aqua fortis*.

Which things, if they prevail not, *Hippocrates* in his Book of Diet, in acute Diſeaſes, and of the Hemorrhoids, ſhews the way of tying, cutting, and burning of them; which operation is out of faſhion now, as being moſt painful and perilous. Although *Maſſaria* ſaith that he once ſaw it, the ſtory whereof will be profitable to be related; for by that you may learn the way of working, and the event. The Hiſtory is this: Frederick Corſicus *of* Vincentia, *firſt had the pain, then the immoderate flux of the Hemorrhoids: And when he had in vain tried many things, went to* Padua; *where the Phyſitians by a common conſent, concluded that the blood muſt be ſtopped. But when many means inwardly and outwardly, were in vain uſed, in the end finding no Remedy, they concluded to try this Manual Operation: But having no fit Chyrurgion, they ſent for a Neapolitan, who profeſſed this Art, and he cut, tied, and burnt the Hemorrhoids of* Fabricius *thus: Firſt he bound him ſo that he could no waies move; then he ſeparates the Hemorrhoids from the Inteſtine; then with a Needle, he paſſeth through, and ſeweth them, and tieth all about ſtrongly: then cutting off the part of the Vein which is above the ſewing, he burns it with a hot Iron. It was a painful Operation from the Ligature, Section, and Burning: So that* Frederick *had a Feaver, and great pain. But the Chyrurgion gave him a few Medicines by which he was freed both from feaver and pain in a few daies to the admiration of all men there, and recovered from bleeding. But it is not to be omitted, how he being too confident, and neglecting bleeding and purging, which he ſtood after in need of, keeping no orderly diet; the next yeer he was taken with a peſtilent Feaver, and died. From whence we may obſerve the Precept of* Hippocrates, *Aph. 12. Sect. 6. That one Hemorrhoid muſt be kept open. Except the Patient, as* Aetius *obſerveth, had rather prevent the danger that comes by ſtopping of it by a good diet, exerciſe, bleeding, and purging.*

But in an ordinary Cure by Medicines, you muſt conſider the Liver and Spleen, becauſe the Meſeraick Veins are inſerted into them, eſpecially if they be hot or weak. And therefore not unprofitably do we apply Epithems, or cooling and ſtrengthening Oyntments, ſuch as we preſcribed in the flux of the Liver, and ſhal more at large be laid down in the hot diſtemper, and inflamation of thoſe parts. Sometimes the Obſtruction of the Bowels, and Meſeraick Veins do cauſe this Diſeaſe; which are to be taken away for the Cure of the Patient. And we have ſometimes done it with Pills of Steel, which are preſcribed in the Obſtruction of the Liver.

The whol time of Cure, let the Patient drink ordinarily Iron Water, or the Decoction of Yarrow.

At the ſame time, above all things you muſt rectifie the blood, which is the chief cauſe of this flux. Therefore if it be ſharp and Chollerick, it is often to be corrected with the infuſion of Rhubarb and Tamarinds. If it be hot and thin, with thickening and cooling Medicines: if watery, with dryers: if much, with a ſlender Diet. For it is vain to think of ſtopping of the blood, except the original of the evil be firſt taken away. Which *Solenander* obſerved, Conſ. 22. Sect. 4. in this following Hiſtory. *I remember* (ſaith he) *that I had one* Ann, *a Dukes Daughter, of a great flux of the Hemorrhoids; and becauſe ſhe was far ſpent, I took much pains to ſtop the flux. But when I perceived that the firſt day after they were ſtopped, ſhe began to ſwel about the Heart. Being ſent for again, the ſeventh day I opened the Veins again; nor could I ſafely ſtop them before I had given gentle Evacutions, and altering and ſtrengthening things for the Liver.*

After you have cured the flux of the Hemorrhoids, you muſt prevent their return: which is done by good Diet, and bleeding twice or thrice in a yeer, and with an ordinary Purge of a Magiſtral Syrup, or other Medicine, with an iſſue made in the Leg, and the like; which are to be altered according to the divers diſpoſitions of Bodies. Moreover, Mineral Waters of Vitriol, Allum, and Iron, are very convenient.

Fonſeca commends the Decoction of the Maſtich Tree, or the Infuſion of it in VVine, for a Prevention, thus made:

Take

Take of *the shavings of Mastich wood two ounces: infuse them in twelve Pints of Wine twenty four hours in a warm place, then strain it and drink of it a whol month for ordinary drink: for it hath strength to stop the Hæmorrhoids, and strengthen the Stomach.*

Chap. 11. *Of the Pain of the Hæmorrhoids.*

THe *Hæmorrhoid* Veins that are in the end of the *Rectum Intestinum*, or streight Gut, somtimes do swel and cause very great pain.

This swelling comes of the same Cause with the Flux or bleeding of the Hæmorrhoids; namely, Of blood offending in Quantity or Quality, which if it findeth not away, and cannot open the ends of the Veins, there it settleth, and by filling of the Veins causeth a Tumor with Inflamation, and pain. The principal Cause why blood cannot get out of the Veins, is the thicknes of it, because it is Melancholly: for commonly the Hemorrhoid Veins, especially internal, are said to receive Melancholly from the Spleen, and somtimes to purge it forth.

Authors give many differences of Hemorrhoids, from their greatnes, number, figure, and place: whence some are called great, others little; some more, some les; some are like Grapes, Mulberries, Warts, or Bladders; thence termed Uval, Moral, Verrucal, or Vesical. Some are External, some Internal.

From these things the knowledg of them is easie; for from a Tumor in the outside of the Fundament, from its greatnes, color, and consistence, the differences are known. And they are to be distinguished from other Diseases which use to be in the Fundament, as *Rhagades*, Clefts; *Condylomata*, Swellings with Inflamation; *Thymi*, Kernels; *Fici*, Piles, and the rest.

Rhagades are certain Ulcers like Clefts in the Hands and Lips, from vehement cold. They have no likenes with the Hemorrhoids; but we will explain them with the rest, although they are properly to be referred to external Diseases, that you may with the knowledg of the Hemorrhoids know all diseases of the Fundament.

Condylomata are certain Tumors of the Skin, which being wrinkled, if it swel by Humors, it is called *Condyloma*. It is distinguished from a Hemorrhoid, because a Hemorrhoid is greater, black, and round in a Vein; but this is long, of the same color, and not in the Veins.

Thymi are carnous swellings, which are not only in the Fundament, but Privities of Men and Women, like Warts, and like the flowers of Thyme, from whence they have their name. These are little, white, or reddish, without pain; but the Hemorrhoids are greater, black, for the most part painful.

Fici are also fleshy Swellings, but greater than *Thymi*; also they are blew and painful, and therefore more like Hemorrhoids: but they are distinguished from them, because they are all flesh; but the Hemorrhoids shew the Veins full, and enlarged at the ends. Moreover, *Fici* for the most part ulcerate, and are malignant, so that they are like a Cancer.

Those Caruncles, or pieces of flesh which grow in the Fundament, are like these *Fici*, called *Cristæ*, or Tufts, usual in *Italy*, but unusual among us, because they come from an impure and unnatural Lechery: they look like the Combs of Cocks, and thence they have their name: Because they are nothing like the Hemorrhoids they need no distinction. But let this be for a Conclusion, All the aforesaid Diseases are cured only by Chyrurgery, so that a peculiar way is not to be layed down here.

As for the Prognostick, The Swelling Hemorrhoids, they are seldom dangerous; but somtimes so inflamed, that you may fear a Gangrene; or else they extreamly torment the Patient.

Hemorrhoids, if they come to Suppuration, or an Ulcer, often times leave a Fistula, which is many times incurable, by reason of the tendernes of the part, and the great moisture which hindereth the healing of it.

For the Cure hereof, first let blood in the Arm, and make a Revulsion from the part affected. Which being sufficiently done, you may also open the Vein in the Ancle for revulsion.

The same is done by Cupping of the Hypochondria for Revulsion, and the Hipps for Derivation.

Strong Purges are not good in this case, because they draw the Humors to the part, and encrease the Tumor. But you must constantly keep the Body open, because hard Excrements, and voided with straning, encreate pain. An Infusion of Cassia given morning and evening, is good for this, thus made:

Take of *Lettice, Bugloss tops, Mallows, of each one handful: Liquoris scraped, and Raisons stoned, of each half an ounce: Bugloss, Borrage, and Violet flowers, of each one pugil. Boyl them to eight ounces. In the straining infuse Cassia new drawn one ounce; strain it, and clarifie*

it,

it; and then put thereto one ounce of Syrup of Violets. Give it twice a day as aforesaid.

Sometimes to assuage the sharpness of the Humor you may give the Emulsions of the cold Seeds, made with the aforesaid Decoction.

In the mean while, divers Topicks are to be used to appease pain, take away Inflamation, and discuss the Humor. Or Oyl of sweet Almonds newly drawn, and which is better, the Oyl of Peach Kernels, or Gourd Seeds, Poppy, or Henbane Seeds.

Oyl of Box-tree is best, because it is stupifying: And as it cures all Tooth-ach miraculously, so doth it mitigate all other: and this, if you lay but a drop with a little Lint upon the Hemorrhoids; or if you mix it with Lin-seed Oyl, in this proportion, that there be half an ounce of that, and one scruple of Oyl of Box.

Quercetan highly commends the Oyl of Nuts in which Sows or Hog-lice have been boyled. You may also boyl Hog-lice in common Oyl, and it will much assuage pain.

Plain Oyl of Eggs, or made in a Leaden Mortar, doth the same.

Divers Liniments and Oyntments may be prescribed for the same: Some whereof do only appease pain; some discuss the Tumor, and dry; others heat the Ulcers. And you may apply them with Lint.

Take *one Yolk of an Egg; as much Oyl of Roses, or Violets as will make a Liniment: To which if you put Populeon, it will assuage pain better; and when the pain is very violent, you may add a little Opium.* Or,

Take of *Hens Grease half an ounce: the pap of an Apple roasted in the Embers one ounce: Saffron half a dram: Populeon half an ounce: With the Yolk of one Egg make a Liniment.* Or,

Take of *Oyl of Violets two ounces: Populeon half an ounce: With one whol Egg make an Oyntment: or let the white of an Egg be beaten with Breast-milk, and applied to the part, with clouts dipped therein.* Or,

Take of *the Mucilage of Fleabane seeds two ounces: Oyl of Violets three ounces. Make a Liniment.* Or,

Take of *the Mucilage of Fleabane and Fœnugreek seeds extracted with Wine, of each two drams: Fresh Butter three ounces: Goats Suet one ounce. Mix them in a Leaden Mortar for a Liniment.*

Or Butter alone, set in a Leaden Mortar in the Sun till it wax black, is an excellent Medicine.

Also fresh Pomatum is very Anodine.

Take of *the Juyce of Purslain and Honey, of each four ounces. Mix them in a Leaden Mortar into the form of a Liniment.*

Take of *Unguent of Roses two ounces: Quick-silver two drams. Mix them into a Liniment.* Or,

Take of *white Diachylon mollified with the Oyl of Chamomel two ounces: Saffron one scruple: Opium three grains. Make an Unguent.*

Horstius much commends an Oyntment made of wild Flax, with its flowers boyled in Hogs grease. To which being strained, and a little cooled, you must add the Yolk of an Egg, and apply it to the part with Lint. He saith that it assuageth these kind of pains miraculously, and that he had from *John Wolf* that famous Physitian of *Hesse*, who refused to discover it to his Prince, the Landgrave of *Hesse*, till he promised him every yeer a fatted Ox.

These Liniments following are good to discuss the Tumor, and assuage pain.

Take *Leeks and roast them in a wet cloth in the embers, and beat them with fresh Butter, and they will take away pain and swelling.*

A red Onion doth the same boyled with the pap of a Lilly, and beaten with Oyl of Myrtles.

Take *the Oyl of Peach Kernels, and bitter Almonds, of each two ounces: Liquid Storax and Bdellium, of each two drams. Dissolve them in* Oleo, *and mix them for a Liniment.*

The Balsom of Sulphur made of the Flower of Brimstone, and Spirit of Turpentine, is good to assuage pain and swelling, and to clense the Ulcers of those parts. And better, if instead of Oyl of Turpentine you use the Oyl of St, Johns-wort, and of Eggs. Also when there is great swelling with Inflamation, you may use Oyl of Roses, or of Violets instead of the Oyls aforesaid.

Also Cataplasms are good for the same purpose. Of which the most common for taking away all pains, is that of white Bread and Milk boyled, adding Oyl of Roses, and Yolks of Eggs.

Aquapendens commends a Cataplasm of Plantane, Pellitory of the wall, and Mallows boyled in Water, and after with Oyl of Roses; to which, when he would have it more drying, he adds Barley Meal, and Millet Meal: And if the pain be great, he makes it of Milk. He commends also the Cataplasm of Leek Heads, boyled in Common Oyl or Oyl of Myrtles, or made of Pilewort boyled in Water.

Green Elder Leaves boyled to slime in Water, and then spread upon a cloth as big as the Palm of your Hand, and applied hot to the Patient lying upon his Belly; if it be often renewed for many hours, and the part first anointed with common Oyl, or the Decoction of the same, is very excellent.

The Leaves also of Elder stamped and applied cold, do take away the pain the third dressing.

Also Purslain stamped and applied, asswageth pain and swelling, heats the Ulcers, and consumeth proud flesh.

A white Onion roasted in the Embers, and made with fresh Butter into a Cataplasm, doth asswage pain, and discuss the Tumor.

Let Fomentations be applied to the part to take away pain, made of the Decoction of Mullein, Mallows, Holyhocks, Pellitory, Lin-seed, Fœnugreek seed, Marsh-mallows, Chimomel flowers, and Dill boyled in Milk, or in the want of Milk, in Water and Oyl, or Tripe Broth.

You may make a Bath with a greater quantity of the same Ingredients.

Cold Water alone, is a good Fomentation, and a Bath also. But in Winter warm it.

Also foment in Rose Water in which Salt of Lead hath been dissolved, especially if the part be inflamed.

To take away swelling, it is good to foment with red Wine wherein Allum is boyled.

Polypody of the Oak, and St. Johns-wort boyled in equal parts of Wine and Water, doth sensibly abate the swelling of the Hemorrhoids, if the Decoction be squeezed in by degrees with a spunge, the Waters of hot Baths applied with Spunges, or to sit in, are also good.

Aquapendens applieth a Spunge dipped in Time Water and squeezed, and after bound upon the part; a Fumigation of the aforesaid Decoction while it is hot, or of Mullein boyled in Milk with Rye Flower, doth also appease pain. Or,

Take of *Houseleek two handfuls*: *boyl them in white Wine, and let the Patient receive the Fume through an hollow Chair.*

To consume and dry up the Piles, a Fumigation made of the Pouder of Darnel, Mullein, Pilewort, cast upon hot coals, is good, and better if you mix Brimstone therewith. Also it is made of Brimstone only, which taken in with a Funnel, drieth up the blind Hemorrhoids. Also a Fumigation made of a Fire-stone quenched in Vinegar.

And this following Injection is marvelous good for the same, if often used.

Take of *Juyce of Plantane, and Oyl of Violets, of each four ounces*: *Natural Balsom half an ounce. Make an Injection into the Anus.*

Amatus Lusitanus in the 91. Cure, Cent. 2. doth praise this following Suppository, in these words: *A Roman Lady which lived at St. Angelo's Bridg, having her Womb forth, complained also of the pain of the Hemorrhoids: And after we had used many choyce Medicines, by which she received no benefit, we gave her a Suppository of Goats Suet and Opium, by which she was cured perfectly. But we washed the part afterwards with strengthening things warm, as ought to be after stupefying Medicines have been applied.*

The same *Amatus*, Curat. 6. Cent. 3. commends this following Topick in these words: *A Reverend man was grievously troubled with the Hemorrhoids; and after divers means used by Physitians, was cured by us with this Medicine immediately.*

Take *an Orange, and make it hollow, and fill it with Oyl of Roses, and of Spike: then roast it, and apply it hot, repeated often, it is wonderful.*

The Lungs of a Goat are used commonly, applied hot to the part, or some slices made hot between two Dishes with a little VVater, to asswage pain.

Both the aforesaid Ballom of Sulphur, and these following Oyntments, are good for the Piles ulcerated.

Take of *new Oyl of Eggs two ounces: Stir them in a Leaden Mortar, and apply them.*

Take *four ounces of Oyl of Roses, and one ounce of Ceruss: With half an ounce of Litharge, and six drams of new Wax, and four grains of Opium. Make an Oyntment.* Or,

Take of *Frankinsence, Myrrh, and Saffron, of each one dram: Opium two grains: One Yolk of an Egg; Oyl of Roses, and Mucilage of Fleabane seeds, of each as much as will make an Oyntment.*

If they will not easily be dissolved, you must open them after convenient Revulsions, rubbing them with a rough cloth dipped in the Juyce of Onions, in which there was dissolved one dram of Aloes. This is *Hartmans* Secret. But they are soon opened, and with less pain, with a Pen-knife, or Horse-leeches.

Some special things are taken by the Mouth to asswage pain, and consume the Hemorrhoids. The chief are these:

The Decoction of Yarrow taken three daies as ordinary Drink, and the seed of three Leaved Grass given many daies together with the Yolk of an Egg, is also excellent.

The

The Pouder of Mullein given in Milk, or otherwiſe, is much approved againſt the Swelling of the Piles.

The Pouder of Yarrow and Tormentil, are commended to do the ſame.

The Juyce of Mullein by its ſelf, or mixed with Sugar of Roſes, or Penedies; or made into a Syrup with Sugar, is alſo excellent.

Finally, Pills of Bdellium taken often, do conſume the Piles, and take away the cauſe of them inſenſibly.

An Iſſue made in the Legg, is very good for them who are ſubject to this Diſeaſe.

The End of the Tenth Book.

THE ELEVENTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Liver.

The PREFACE.

THe *Liver (as other parts) is subject to all kind of Diseases: For as it is compounded of similary parts it hath divers distempers, and as it is an organical part, it is Affected with Tumors and stoppages, as also with solution of Continuity, which is Wounds and Ulcers. And although the Dropsie be in the whol Abdomen or Belly, as in an Ascites or Tympanites; or in the whol Body, as in Anasarca: yet the Original thereof for the most part is from the Liver. We intend here only to shew the chief Diseases which are most ordinary, and we shal Comprehend them in Six Chapters: The first whereof is concerning the Hot distemper of the Liver: The second of the Inflamation, Ulcer, and Imposthume of the Liver: The third of Obstruction of the Liver: The fourth of the Jaundice: The fifth of Scirrhus: The sixth of the Dropsie.*

Chap. 1. *Of the Hot Distemper of the Liver.*

MAny men have a Hot Distemper of their Liver, from their Birth; of which here we shal not treat, but only of that preternatural Disease which manifestly hindereth the Actions of the Liver.

This Distemper is either Simple, or Compound; either with Matter, or without; but for the most part it hath Matter joyned with it, because a Hot Distemper of the Liver useth to produce Hot and Chollerick Humors.

The Causes of this Distemper are Hot Weather, immoderate Exercise, much Anger, and other great Passions of the Mind, and especially hot nourishment, and Physick, or things Spiced, a pure and strong Wine drunken plentifully: To these you may ad the Heat of the Part adjacent as in strong Feavers, the Liver waxeth Hot from the heat of the Heart.

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The Signs of a Hot Distemper of the Liver, are Loathing of Meat, especially Flesh; Thirst, binding of the Belly, vehement heat in the whol body, especially in the palms of the hands and soles of the feet; leanness of the whol body, the Patient is worse for hot things, and better for cold: and if there be plenty of hot Humors, there wil somtimes be Vomiting and purging of Choller; there is a bitterness in the mouth, and for the most part a Feaver.

As to the Prognostick, A Hot Distemper of the Liver is not very dangerous, because it is not much contrary to the Constitution of the Liver, but it useth to be the Cause of many Diseases not only of the Liver, but also of other parts: It is hard of Cure, especially when the Stomach is cold, as often it is; for those things which are given to Cool the Liver hurt the Stomach and enlarge its Distemper.

The Cure consists altogether in the correction of the Distemper by cooling Medicines, and by the Evacuation of the Chollerick humors which comes from the Liver, encreasing the Distemper, and that Distemper it, and is the Cause of other Diseases.

And first, Opening of a Vein doth much cool the Liver, takes away some of the Choller, and opens the Obstructions which comes from Choller; therefore you must open the Liver Vein of the Right Arm, and let such a quantity of blood as is agreeable to the fulness and strength of the Patient, either at once, or divers times, according to the greatness of the Disease and the continuance of it, and that after a Clyster or Laxative Medicine hath been administred.

Then you must give a Medicine which doth gently Purge Choller, and Repeat it often at distance; or an Apozem for divers Doses; or the Magistral Syrup, or Syrup of Succory, Compound with a four-fold proportion of Rhubarb which is most convenient, because it doth innocently purge the Chollerick Humors, cooleth the Liver, strengthneth it, and opens Obstructions.

The Forms of these Medicines, are these that follow:

Take of *clensed Senna and Tamarinds, of each half an ounce: Annis seeds one dram: Succory and Sorrel, of each one handful: scraped Liquoris three drams: the three Cordial Flowers, of each half a pugil: boyl them to three ounces: and dissolve in the straining, of Rhubarb infused with a little Lavender Spike in Succory Water, one dram and an half: double Catholicon three drams: Syrup of Roses one ounce: make a Potion, give it in the morning with due custody.*

For the finer sort of People you may make Clarified Potions which are lately invented, which are in form of a Julep, but somwhat unpleasant to the taste, and in them there is prescribed a double quantity of Purging Medicines because the much strength of them is lost in the Clarifying, so that they do seldom work upon strong bodies; especially in a dry Country where the Humors are less flowing and not so obedient to purges; but in moist Countries, these kind of Medicines work successfully.

This following is an Example of Clarified Potions.

Take of *clean Senna one ounce: Annis seeds one dram: Succory Leaves and Maiden-Hair, of each one handful: scraped Liquoris half an ounce: boyl them to ten ounces, and infuse in the straining two drams of Rhubarb: Cassia new drawn, and double Catholicon, of each one ounce: bruised Tamarinds half an ounce: Coriander seeds prepared one dram: Syrup of Roses one ounce: strain them and clarifie them according to art: make a Potion.*

An Apozeme to Purge Choller is thus made:

Take of *Sorrel, Dogs-tooth, Succory, and Dock Roots, of each one ounce: Endive, Succory, Dandelion, and Maiden-hair, of each one handful: of the Four great seeds, of each three drams: scraped Liquoris one ounce: Succory, Bugloss and Violet flowers, of each one pugil: clean Senna two drams: Tamarinds one ounce: Mace, and Cloves, of each one dram: boyl them to a Pint and a Quarter: in the straining dissolve half an ounce of Rhubarb infused in the aforesaid Decoction with a little Cinnamon, of compound syrup of Succory, and Roses solutive, of each two ounces; make an Apozeme, clarifie it, and aromatize it with two drams of yellow Saunders, for four mornings draughts.*

A Magistral Syrup may be made of the ingredients of the former Apozeme, with a treble quantity of Purgers, and adding an equal proportion of Sugar to the Decoction.

A Syrup made of Juyces is most used amongst us, it is of great power in Chronical Diseases, which come from a Hot Distemper of the Liver, and from yellow and burnt Choller: And it is made thus:

Take of *the new made Juyces from their Faces, of Endive, Succory, Sorrel, Fumatory, Burrage, and Bugloss, of each three Pints: the Juyce of sweet Apples newly drawn and purified two Pints: fresh Polypody of the Oak, half a pound: clean Senna eight ounces: Dodder of Thyme three ounces: Agarick newly Trochiscated half an ounce: Mace and Cloves of each half a dram: infuse them, and boyl them according to art while there remains one Pint and an half of the straining, in which dissolve of Rhubarb infused with a little Lavender in the aforesaid Juyces and strained, one ounce; white Sugar one pound and an half: make a Syrup well boyled, clarified, and*

aromatized

aromatized with two drams of Triasantalon: keep this syrup in a Glass: give two ounces at a time, or three, twice or thrice every month with Chicken Broth wherein Endive, Succory, and Sorrel have been boyled; or in Whey.

These things following are excellent to cool the Liver. And first for ordinary Drink, use the common Ptisan made of Barley Water and Liquoris, or with Dog-tooth and Sorrel Roots. Or mix such a Decoction with Syrup of Lemmons, or Maiden-hair. Or they who are more dainty may take only the simple Spring Water, mixed with the aforesaid Syrups. And if you desire to cool more, you may put as much Spirit of Sulphur, or of Vitriol, as will make it a little sharp. And when the heat is very vehement, you may give a dram of Lapis Prunellæ therewith. There is also made a most pleasant Drink of Conserve of Roses mixed with Spring Water and strained: to which you may ad some drops of Spirit of Sulphur or Vitriol to make it sharp and red like VVine.

You may also make a Tincture of Roses thus:

Take of *red Roses dried one ounce: warm Water three pints: Spirit of Sulphur or Vitriol one dram and an half: Infuse them three or four hours: add to it being strained, three quarters of a pound of white Sugar. Keep it for your use.*

The Alexandrine Julep for this purpose, is made thus:

Take of *Spring Water one pint: Rose Water, Juyce of Lemmons, and white Sugar, of each four ounces: Boyl them with a gentle fire till they are skinned.*

These two last Remedies are used two waies, either for ordinary Drink, or as a Julep twice or thrice in a day.

Also divers Juleps to cool the Liver use to be prescribed; of which, the Forms following may be Examples.

Take of *Sorrel, Succory, Dog-tooth, and Dock Roots, of each one ounce: Endive, Succory, Sorrel, and Maiden-hair, of each one handful: Succory, Bugloss, and Borrage Flowers, of each one pugil: boyl them to a pint. In the straining dissolve Syrup of Lemmons three ounces: Make a cleer Julep for three Doses, to be taken twice in a day. If you will make it cooler, add a little Spirit of Sulphur or Vitriol to every Dose to make it sharp. And to make it colder yet, add a dram of Sal prunellæ.*

VVhen Herbs are wanting, you may make a Julep of stilled VVaters thus:

Take of *Endive, Succory, and Sorrel Water, of each three ounces: Syrup of Lemmons, and Pomegranates, of each one ounce and an half: Make a Julep for three Doses.*

You may also make Juleps that are good and pleasant, of Juyces: an Example of all which, may be this that followeth:

Take of *the Juyce of sweet Apples newly drawn, and taken from the faces, four ounces: the juyce of Lemmons three ounces: Rose Water two ounces: the Juyce of Pomegranates one ounce: white Sugar half a pound. Make a Julep for three Doses.*

Instead of Juleps, Physick Broth may be made for the dainty folk, of the Herbs aforesaid boyled with a Chicken. To which you may add one dram of Lapis Prunellæ, that it may cool the better; or make it sharp with some drops of Spirit of Vitriol.

Blood of Succory and Germander, brought into a Syrup as followeth, are good to clense the blood, open obstructions, and cool the Liver.

Take of *Succory Water made in Balneo Mariæ, as much as you please: the Leaves of Succory two parts: Germander one part: Steep them together, and digest them in Balneo Mariæ three daies: then strain them, and add to the Liquor, fresh Succory, and Germander: then digest them again three daies; then strain them: and let this way of Infusion be repeated eight or ten times. The Liquor will turn red like blood, to which you must put as much Sugar, and make it into a Syrup.*

Besides, You may make Opiates and Tablets to cool the Liver, and strengthen it, thus:

Take of *Conserve of the Flowers of Succory, Violets, Water-lillies, and Bugloss, of each one ounce: the powder of the three Sanders one dram and an half. With Syrup of Lemmons make an Opiate to be taken often.*

Take of *the Lozenges of the three Sanders, with a double quantity of Rhubarb, four ounces. Let him take every morning two hours before meat, one of the weight of two drams.*

Conserve of Hips of the Canker Rose, well clensed, and boyled with Sugar into the Form of a Marmalade, doth powerfully cool the Liver, if the Patient taketh it instead of the former Opiate.

The Tincture of Coral, made with Juyce of Lemmons doth cool and strengthen the Liver, if you give two spoonfuls thereof every day, or twice in a week at the least.

A Bath of warm VVater used often, doth more powerfully and profitably cool and moisten the Body than any other Remedy, especially in lean folk.

VVhey is good for the same, if it be used fifteen daies, or more, together. It is made best by boyling

ling the Milk, and powring in a little Vinegar or Juyce of Lemmons, and afterwards straining it.

Amatus Lusitanus prepareth it thus:

Take of *Whey one pint: very sharp Syrup of Vinegar three ounces: Mix them, and after a little boyling let it be taken as Mineral Waters, twice or thrice, and then walk upon it. The Ancients took it five pints at a time.*

Quercetan prepareth it thus:

Take of *Whey two pints: Juyce of Lemmons two ounces: the new made Juyce of sweet Apples three ounces. Clarifie them all together at the fire with the white of an Egg, and put to them a little Sugar. When it is strained, take six or eight ounces every morning, for fifteen or twenty daies together.*

And if the Body be lean and consumed, you may give Milk alone, especially if it be of an Ass, for many daies.

The Decoction of China prepared with the Juyce of Lemmons, is also good for this purpose, especially if there be Obstructions. It is made thus:

Take of *China Roots sliced one ounce: Spring Water six pints: the Juyce of Lemmons three ounces: Steep them twenty four hours: then boyl them till the third part be consumed; then strain them through a Hippocras Bag, and let him take six ounces thereof morning and evening, and mix it with Wine when he pleaseth.*

Lastly, Mineral Waters that have Vitriol, are good, because they open and cool.

If the Disease continue after all this, open the Hemorrhoids with Horse-leeches once or twice in a month.

And also use outwardly Epithems and cooling Oyntments to the Region of the Liver.

Make Epithems of Sorrel, Succory, Rose, or Plantane Water, or of Vinegar and Camphire: to which for the strengthening of the part, add a little Pouder of the three Sanders.

The Oyntments are, *Galens* cooling Oyntment, and the Cerat of Sanders.

Chap. 2. *Of the Inflamation, Impostbume, and Ulcer of the Liver.*

THe Inflamation of the Liver, is a hot Tumor arising from Blood, which is out of its Vessels, and sent into the substance thereof.

And as the Blood is either pure, or mixed with other Humors, so doth it produce divers kinds of Tumors. For if it be pure, it makes a true Phlegmon; but if it be mixed with Choller, Flegm, or Melancholly, it produceth an Erysipelous, Oedematous, or Schirrous Phlegmon. And if the said Humors predominate over the Blood, there is a Phlegmonous Erysipelas, œdema, and schirrus.

There is another difference in respect of the place in which the Inflamation is; it is either in the gibbous part, or Cavity of the Liver. Which is thus to be understood according to *Galen*, 5. *de locis, aff. cap.* 7. An Inflamation cannot be in either part of the Liver distinct, so that the other shal be free, because the flesh in the part is contained in all parts, and therefore when one part suffereth, the other also suffereth in some measure.

Moreover, That which *Galen* taught 13. Meth. Cap. 14. is worth observation: When the hollow part of the Liver is offended, it is necessary that the Inflamation reach to the Veins of the Mesentery, which come from the Gate Vein. And Experience teacheth that they who have died of this Inflamation have had, not only an Impostbume in the Liver, but also in the Mesentery.

We must also observe from *Hippocrates*, Aph. 45. Sect. 7. That an Impostbume sometimes is only in the Membrane which covereth the Liver, and sometimes in the substance, or Parenchyma of it: *For* (saith he) *they who have a hot Liver suppurated, if pure white quittor or matter flow from thence, do escape; for it is contained in the Tunicle: But if it be like Lees of Oyl, they die.* *Galen* in his Comment, saith thus: *They who have matter in the Tunicle of their Liver, and the substance not suffering, do all escape: but they who are corrupted in the very fleshy substance of the Liver, die; and there is good reason to be given why they do.*

The immediate Causes of this Disease are, too much Blood, or the boyling heat, thinness, and sharpness of the same; or the motion and stirring of it in the Veins; from whence by the aforesaid Causes, it is easily thrown into those parts which are most fit to receive it. The Liver is most fit to receive blood abounding when it is too hot, or hath any pain, for heat and pain do attract, or if it have any Natural or adventitious weakness: For all parts that are burdened with any Humor, do disburden themselves upon the weakest. Among these Causes you may reckon the obstruction of the Liver, by which the thick Humors are retained, and are inflamed by a Preternatural heat.

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The External Causes may be many, as too much heat of the body from immoderate Exercise, the Sun, or fire: but Meats sharp and spiced, immoderate taking of two much strong Wine, too much Letchery, Fear, a Stroak or Fall upon the Liver side, also hot Medicines applyed without reason thereto; as *Fabricius Hildanus* reports of one who having a cold distemper of the Stomach had Emplaisters and hot Oyntments of Pepper, Cardamons, Oyl of Cloves, and the like applyed to him, by which means the Inflamation of the Liver was encreased: for the Liver covereth the Stomach, and the Medicines which are applied to the Stomach, do first touch the Liver with their Vertue.

Cupping Glasses applied to the Region of the Liver wil do the same, of which *Fabricius Hildanus* brings an Example concerning one who bled at the Nose, to whom he applied great Cupping Glasses upon the Region of the Liver which stayed the blood; but a great Inflamation of the Liver followed.

The Signs of this Disease are many according to *Galen* and other Authors, which we shal lay down severally, because many errors are committed in the discovery thereof.

The First Sign is Heavines in the right Hypochondrion which comes from the Repletion and Distention of the Liver; because being of its own nature large and very compact, if it be filled with much Humor it wil grow very heavy: which the Patient apprehends when he turneth from one side to the other.

The Second Sign is Pain, which sometimes is perceived in one place, sometimes in two or three: in the Region of the Liver there is a weighty Pain; sometimes it is very extending in the lower Ribs when the Inflamation reacheth to the Ligaments of the Liver which are fastned to the Ribs: sometimes the Pain is communicated to the Throat, by the continuation of the Membranes, which have consent with the Membrane which covers the Liver.

The Third Sign is a Feaver, which is commonly at night, and is more or less sharp according to the Humor offending: for in a Chollerick Inflamation it is most burning; but in a Flegmatick, gentle; and in a Sanguine Inflamation, moderate between both.

The Fourth Sign is Difficulty of Breathing, because the Liver is tyed to the Diaphragma, or Midriff; and therefore by its weight forceth it downwards, as also presseth it with greatnes and swelling; so that both wayes the free motion of the Diaphragma is hindered.

The aforesaid Signs are Universal or proper to declare the Disease: there are many other equivocal Signs, which also do much avail to the knowledge of the Disease: As a dry Cough, a hard Pulse unequal, and like a Saw: the colour of the Tongue first red, and then black: great Loathing of meat: unquenchable Thirst: vomiting of Choller, and sometimes of Flegm: a pale Colour of the whol Body tending to the Jaundice, yellowish: red and flaming Urin, which is sharp: when the Patient lieth with his face upwards, he is more at ease than when he lieth on either side; because when he lieth upon the right side the Liver is pressed upon by the Stomach; when he lieth upon the left, it is extended by its own weight, hanging down; the Belly is bound, by reason of the Heat which consumeth al the moisture of the Chylus matter: Sometimes it is loose, namely, when a great weakness of the Liver is joyned with the inflamation; for then the Excrements are sent forth moist like the Water wherein Flesh hath been washed.

The Signs of the Differences are these; If the Gibbous or Convex part of the Liver be affected, there is a Tumor to be felt in the right Hypochondrion, and it makes the figure of the Liver like a half Moon: there is great pain in the Breathing, and it reacheth to the right side of the Throat, so that it seemeth to be pulled down: There is a greater Cough and Difficulty of Breathing, and greater weight.

But if the Hollow part of the Liver be affected, the Tumor is not so easily felt; but because as I have said, one part of the Liver cannot be inflamed, but the other must also suffer; when the part is touched and pressed down, some pain is perceived.

Moreover, Because this part lieth upon the Stomach, there is a greater loathing of Meat, vomiting, thirst, and loosenes of the Belly, from the food corrupted in the Stomach which is distempered by the neerness of the Liver to it.

The Signs of the Causes are these,

If the Inflamation come from pure blood, there is either a perfect Red or duskish colour in the face; the Pulse is great, soft, and watrish; the Urin is red and thick; the Body is full of flesh: there is sweetnes in the mouth, the party is yong and hath fed high.

If Choller predominate, the Face is yellow, the Pulse swift, hard, and unequal, the Urin thin and very yellow, sometimes flaming: the Body is lean and thin: the Eyes hollow: the Mouth bitter: there is vomiting of Choller, and Causes that bred Choller went afore.

But because the Inflamation of the Muscles of the Abdomen or Belly is very like the Inflamation of the Liver, there we must distinguish them by their proper Signs.

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In the Inflamation of the Muſcles of the Abdomen, the skin is ſo extended that if you lay hold of it you cannot move it; the humors of the ſtreight Muſcles are long and over the whol belly comprehending the Navel: and the inflamation of other Muſcles is in the form of them. On the contrary, the Inflamation of the Liver is in the ſhape of the part affected; and if you lay hold on the Muſcles, they yeild and the Tumor is ſomwhat deeper.

Moreover, The color of the whol Body is of much concernment for the diſtinguiſhing of thoſe Diſeaſes; for in the Inflamation of the Muſcles, it is freſh, and aknoſt in its Natural condition; but in the Inflamation of the Liver, it is pale, yellow, and like the Jaundice.

There is a famous Example of this in *Galen*, 5. *de loc. aff. cap.* 7. of one *Steſianus*, who when he was judged by other Phyſitians to have an Impoſthume in the Liver; *Galen* being ſent for, at the firſt view of his face, preſently ſaid that there was none, and ſearching his Belly, he found it in the Abdomen: He judged upon this ground, Becauſe the Patient had not his face ſo diſcolored, as uſeth to be in the Inflamation and Impoſthume of the Liver.

The like Example is in *Valeriola*, Lib. 4. Obſ. Cap. 5. of a certain Woman which was thought by another Phyſitian to have a Phlegmonous Tumor in the Liver. But ſaith he, *When ſhe ſent for me, I judged it not to be ſo, but in the Muſcles.* And a little after he ſaith, *When I firſt came, I touched the place, and I found a long ſwelling in the right Hypochondria, down to the very Navel; the Face was red, freſh, and of a Roſie color, mixed with white, continuing all the time of the Diſeaſe in the ſame ſtate; the Urine was very good, both in color, and in reſpect of the things contained: From all which it appeared, that not the Liver, but the Muſcles over it were affected; for when the Liver is affected, there is alwaies a diſcoloring of the face.* For *Galen* ſaith, that he knew many diſeaſed in their Livers by their colors, Lib. 5. de loc. aff. cap. 7. for the color in ſuch is commonly yellowiſh, white, and inclining ſomtimes to green.

Moreover, It is troubleſom to diſtinguiſh a Pleuriſie from an Inflamation of the Liver: as you may obſerve in *Galen*, 5. de loc. aff. cap. 7. in his Hiſtory of *Siculus* the Phyſitian, who was deceived in himſelf, ſuppoſing that he had a Pleuriſie; becauſe he had a Feaver, little and frequent breathing, a ſmal Cough, and a pain neer the lower Ribs: but *Galen* by his ſtools, which were like water wherein fleſh had been waſhed, knew that his Liver was inflamed, for ſuch a flux doth ſhew that the Liver is greatly diſordered. But this ſign cannot alwaies diſtinguiſh a Pleuriſie from an Inflamation of the Liver. For as *Galen* teacheth in the place cited, ſuch kind of moiſt and bloody ſtools come only when the Liver is inflamed, when it is alſo very weak, otherwiſe one ſign of the Liver inflamed is (by *Galen*) coſtiveneſs. Therefore when the Liver is not weak, you muſt look for other ſigns, by which you may diſtinguiſh them.

If then the Inflamation be in the Pleura towards the right Hypochondria, the pain wil be vehement and pricking, the breath more difficult, there will be no change of color, the Cough will be greater, and not dry, but commonly (eſpecially in the encreaſe of the Diſeaſe) with bloody Spittle, ſomwhat at leaſt diſcolored; and laſtly, the Pulſe will be hard, and like a Saw: But in the Inflamation of the Liver, the pain is leſs, joyned with heavineſs, the color is yellowiſh, there is a dry Cough now and then, the Pulſe is not ſo hard; and laſtly, there is a Tumor in the right Hypochondrion.

And if the Inflamation be in the Meſentery, the Tumor will appear beneath the Region of the Liver, there will be no change of color in the Face, the ſtools will be moiſt, in which at firſt there wil be thin and unconcocted Matter, afterwards concocted, in thoſe of whom there is hope of recovery.

The Prognoſtick of this Diſeaſe, is thus made:

Every Inflamation of the Liver is very dangerous, and for the moſt part deadly. And if it doth not kill preſently, it ends in a Dropſie, or Atrophy, or Conſumption. All the hope of recovery is from the ſtrength, as *Galen*, 10. meth. cap. 5.

An Inflamation of the Gibbous or bunchy part of the Liver, is more dangerous than that which is in the hollow part, by reaſon it is neerer the Heart, the Midriff, and hollow Vein.

An Inflamation coming from Choller, is more dangerous than that which cometh of pure Blood, becauſe then the Feaver is ſtronger, and other ſymptomes greater.

The Hiccoughs in an Inflamation of the Liver are evil, *Hipp.* Aph. 17. Sect. 7. For it ſhews the encreaſe of the Inflamation, and malignity, which doth by conſent diſturb the Stomach.

A Looſneſs joyned with an Inflamation of the Liver, is deadly, except the Matter voided be concocted, and the flux be Critical.

If the Inflamation of the Liver cannot be diſcuſſed, as it ſeldom can, and if the Faculty be ſtrong, it turns into an Impoſthume; otherwiſe it turns into a Gangrene or Sphacelus. The Suppuration for the moſt part wil be within twenty daies. And this Impoſthume is very dangerous, and few eſcape thereof. But if it be little, and only in one part of the Liver, and the matter white and even which comes forth by Urine or Stool, they eſcape. Alſo a Tumor in the Convex, or outward part of the Liver, which appears in the Skin as it were movable, may be opened with an actual Cautery;

and if the Matter coming forth be pure and white, they escape, for the Matter is contained in the Tunicle; but if it be like Lees of Oyl, they die.

After the Impostthume is broken, if the Patient live, there remains an Ulcer, which is very troublesom to cure; and if it be not superficial, it causeth a Dropsie or Marasmus.

Also an Ulcer may be in the Liver from sharp Humors that corrode it, especially if they be chollerick, and spread through the substance of the Liver, which putrifying by degrees, get a malignant and venemous quality.

The knowledg of this Ulcer, which comes from the sharpness of the Humors without Inflamation afore going, is difficult. But it may be known by some signs. And first, there is an ulcerous pain in the right Hypochondrion, and the Patient waxeth lean; and if it be in the hollow part of the Liver, there are stools with Pus or Matter, and sometimes with Blood, and pain of the Guts by reason of the sharpness of the Humors, like a Dysentery, which is distinguished from this Disease in this, Because there is a weight and pricking about the Liver. And sometimes Authors have observed that pieces of the Liver have been voided by stool. But if the Ulcer be in the gibbous or outward part, the Water is Mattery without any distemper of the Reins or Bladder. There is a smal Feaver in the encrease of the Disease, which turneth into an Hectick. The color is yellow, and sometimes there are smal pustuls which come from the aduction of Humors in the Face. There is a loathing of Meat, and especially of flesh, a stinking breath, and often fainting.

Concerning the Prognostick, It bringeth a lingering Hectick Feaver.

And if the Ulcer be not smal, superficial, and cured betimes, it is deadly.

Those Exulcerations of the Liver which follow Inflamations and Impostthumes, are more dangerous than those that arise without them.

The Cure of the Inflamation of the Liver, is the same with that of the Inflamation of the Stomach afore mentioned, and chiefly in respect of Phlebotomy, Purges and altering Remedies are to be given in the beginning of the Disease.

You must also give often Clysters, such as were prescribed in the Inflamation of the Stomach.

But afterwards, cooling, clensing, and opening Juleps, such as were described in the Chapter aforementioned, bewaring that they be not too sweet, for by sweet things, the Liver being inflamed, grows larger, as *Trallian* teacheth, Lib. 4. Cap. 10.

Let his Drink be the Decoction of Barley, Dog-tooth, with a little Liquoris, Syrup of Violets, or Maiden-hair.

In the Decoction you may ad to the former Juleps, the Roots of Smallage and Parsley, the Leaves of Agrimony, Maiden-hair, &c.

And afterwards Turpentine, washed Agrimony, or Parsley Water given twice or thrice, takes away the reliques of the Disease.

But if the Disease be stubborn, and last long, you must prescribe an Apozeme of opening and loosening things, thus:

Take of *the Roots of Smallage and Parsley, of each two ounces: new Polypody of the Oak three ounces: the Leaves of Agrimony, Burnet, Ceterach, Maiden-hair, of each one handful: Annis, Fennel, and Parsley seeds, of each one dram: Chamomel and Violet flowers, of each one pugil: clean Senna one ounce: Boyl them to a pint and a Quarter. Dissolve in the straining Rhubarb infused with a little Lavender in Succory Water, two drams: simple Syrup of Vinegar four ounces. Make an Apozeme for four Doses, to be taken every other day.*

Outwardly, many Topicks are good to be used the whol time of the Disease. And in the beginning, Epithems, Liniments, and cooling Plaisters, such as stop Fluxes, made thus:

Take of *Endive, Succory, Sorrel, Plantane, and Rose Water, of each three ounces: Vinegar of Roses one ounce: the pouder of the Electuary of the three Sanders, one dram and an half: Camphire half a scruple. Make an Epithem to be applied warm to the Region of the Liver.* Or,

Take of *the Leaves of both Endive, Succory, Plantane, Bugloss, Burrage, and Water-lilly flowers, of each one handful: Roman Wormwood half a handful: red Roses two pugils: red and yellow Sanders, of each two drams: boyl them to one pint and an half. Dissolve in the straining half a pint of Rose Water, Rose Vinegar one ounce; Camphire one scruple. Make an Epithem.*

If you desire to cool more, you may ad the Juyces of the aforesaid Herbs.

Take of *Oyl of Roses two ounces: Oyl of Wormwood half an ounce: mix them and wash them with Oxycrate, and anoint the place therewith after the use of the Epithem.* Or,

Take of *Oyl of Roses, and of Myrtles, of each two ounces: the Juyce of Endive and Succory, of each one ounce: Vinegar half an ounce: boyl them to the Consumption of the Juyces: then add the pouder of red Sanders, and Roses, of each one dram: as much Wax as will make an Unguent.*

Or

Or you may use the Oyntment of Roses alone, or *Galens* cooling Oyntment washed with Oxycrate.

In the progress of the Disease, when the Feaver and pain decrease, you must mix Dissolvers with Coolers, either in equal, or unequal proportion, as the Disease grows neerer to the state or declination, these must be wisely compoted. But that you may know what to make them of, we will shew you some Examples.

Take of *Oyl of Roses two ounces: Oyl of Wormwood one ounce: Oyl of Chamomel half an ounce: Powder of the three Sanders one dram: Spicknard half a dram: Wax, as much as will make a Liniment.*

Take of *clean Dates ten: whol Raisons three ounces: boyl them in Oxycrate; then beat them with Chamomel, Melilot, and red Rose Flowers, of each one pugil: Spicknard and Schœnanth, of each one dram: Smallage and Parsley seeds, of each half a dram: Endive and Purslain, of each one dram and an half: Oyl of Wormwood and Roses, of each one ounce: Barley meal two ounces. Make a Cataplasm.*

Or you may make one not so hot, thus:

Take of *Barley meal three ounces: red Sanders two ounces: Oyl of Roses three ounces. Mix them with the Decoction of Endive and Succory, for a Cataplasm.*

In the declination, when the Feaver is gone, you must use Dissolvers, with Emollients, lest any hardness should remain, and some Astringents to strengthen the part.

Take of *Marsh-mallow Roots three ounces: Cypress Roots, and Calamus Aromaticus, of each half an ounce: Mallows, Violets, and Agrimony, of each one handful: both the Wormwoods, of each half a handful: Fœnugreek, Annis, Fennel, and Line seed, of each half an ounce: Chamomel, Melilot, and Dill flowers, of each one pugil: Spicknard, Schœnanth, and Mastich, of each one dram and an half. Make a Decoction of them, and foment the part affected with it, somwhat hot.*

Take of *Oyl of Chamomel, Lillies, and sweet Almonds, of each one ounce: Oyl of Wormwood and Spike, of each half an ounce: the Powder of Schœnanth, Rosata Novella, and Wormwood, of each one dram: Wax so much as will make a Liniment to be used in the declination of the Disease.*

If the hardness of the part continue, it will be good to add to the former Liniment, Gum Ammoniacum dissolved in Vinegar. Or this Plaister:

Take of *the Emplaister of Melilot and Diachylon with Flowerdeluce, of each one ounce. Mix them, and spread them upon Leather, cut like a half Moon, to be laid to the part.* Or,

Take of *Gum Ammoniacum dissolved in Vinegar one ounce: Labdanum and Mastich, of each two drams: Oyl of Wormwood and Wax, of each as much as will make a Plaister.*

If the Inflamation tend to suppuration, which is known by encrease of the Feaver, and the pain, according to *Hipp.* Aph. 47. Lib. 2. there is great danger, and few escape in this case. Yet you must further the Suppuration with the aforesaid Emplaisters, which will dissolve the Matter which will be dissolved, and suppurate that which will be suppurated or ripened; as also with mollifying Cataplasms, and you must give inwardly Chicken Broth wherein Mallows, Marsh-mallows, Figgs, and Prunes have been boyled.

After the Impostume is broken, if white Matter flow by stool or urine, you must clense with Barley Water, or Whey with Honey of Roses, or with those Remedies which are prescribed for the Cure of the Ulcer of the Stomach. But if the Suppuration tend outwardly, you must open it with a red hot Incision Knife, according to *Hippocrates.* And if the Matter come forth white and concocted, there is hope of Cure; but if red, filthy, and stinking, the Patient is neer death.

Chap. 3. *Of the Stoppage, or Obstruction of the Liver.*

THe Obstruction of the Liver is a preternatural closing or straightness of the Branches of the Vena Porta, and Cava, that is, of the Gate and Hollow Vein, and sometimes of the substance of the Liver, hindering the passage of Natural Humors, and the distribution of the Nourishment, coming from some Matter which filleth their Cavities.

Hence it is that Obstruction is an Organical Disease, namely, in the way and passage obstructed, which hinders the distribution of Blood for the Nourishment of the parts. These waies or passages are not only the Veins which are disperied through the whol substance of the Liver; but also the Pores and insensible Passages, with which the whol substance of the Liver, and also of other parts, is very full; which being shut up by a preternatural Humor; neither can the heat of the Liver be cooled, nor can the thin vaporous Excrements be evacuated.

The Matter that Causeth the Obstructions, commonly is a gross Excrement, viscous and clammy, which being not able to pass freely, sticks in the passage, and is more and more thickned by the heat of the part, so that the longer Obstructions continue, the worse they are.

Sometimes plenty of Humors cause an Obstruction, as *Galen* sheweth, 10. meth. cap. 2. in these words, *Of Obstructions some come of abundance of Humors, and some from the Quality, as when they are gross or clammy; Blood letting is the best Remedy against those which come from plenty, and the use of attenuating things is best against those that come of Quality.*

This Obstruction which comes from plenty of Humors, happens chiefly in the Vessels and their cavities when being too full, they are so distended, that they cannot contract themselves for the sending forth of the Matter contained: As we may observe by the Bladder when it is stretched out by long retention of too much Urin, that it cannot contract it self; from whence there comes a stoppage of Urin, or difficulty of voiding thereof.

Not only Humors, but also sometimes many gross Vapors, which cannot easily be discussed (because the way is not open, as in the Chollick) may be the Cause of Obstruction, as *Galen* teacheth, 3. de loc. aff. which Causes are very rare, and absolutely denyed of some.

The Humors which stoppeth with its thickness is chiefly Flegm, which wil easily grow gross and clammy. Melancholly is next, which by its coldness, thickness, and drosiness, may cause Obstructions: Also Blood may do the same by its Quantity and thickness: And lastly, Choller staying long in the Liver grows thick, and breeds dangerous Obstructions. The Antecedent and Principal Causes, are al things that produce thick and clammy Humors, and thick and cloudy Air, Meats of gross Juyce, viscous, hard of Concoction, and distribution, astringent, cold, and not fit for to be eaten, as Pears, Quinces, Services, Medlars, Mushrooms, Cheese, Pulse, Pease or Beans, Beef and Pork, slymy Fish, and dryed in the smoak, Bread not wel baked, Rapes, Chesnuts, thick, red, and astringent Wine, and muddy Ale.

Also an evil Disposition of the Liver, especially a cold distemper, which may also produce Obstructions from good Juyce, as when it doth not wel Concoct, but turns the meat into a salt tartarous and mucilaginous or slymy Matter.

Also the Distemper of the Stomach may be a Cause of Obstructions, when it begets too crude a Chyle, which cannot after be wel ordered by the Liver, because the fault of the first Concoction is not amended by the second.

The Signs of this Disease are to be divided into divers sorts, some signifie the kind of the Disease, others the part affected, and others the cause that produce it.

The Signs that shew the kind of the Disease are common to al natural parts that are subject to Obstructions: for they shew only Obstructions lying in the lower Belly, and these therefore wil serve for the knowledg of the Obstructions of the Spleen, and Mesentery especially.

These Signs shew that there are Obstructions in the said parts,

The Excrements of the Belly being out of their natural condition, especially when they are moist, white, chylous, or bloody: white Urine, thin and watery, and as it were strained, because the thicker parts cannot pass through by reason of the Obstructions, but only the pure water comes through unmixed; and it may be yellow if there be heat.

Difficulty of Breathing, especially when the Patient walketh fast, or goes up a hill, or pair of stairs, because the Parts obstructed do draw the Midriff down-wards, and hinder its free motion; the Face is pale; there is leanness and dulness over the whol body; the Pulse is unequal; and lastly, there is such a sense of weight in the Hypochondria as they who have been feeding very hard; Therefore *Hippocrates*, 4. *de victus ratione in acut.* calls that heavines a fulness of the Hypochondria, attributing that Disease to the Hypochondria, which properly belongs to the Stomach: for as often as the Spleen and Liver are filled with evil Humors, and swel, they are pressed and feel a heavines, after the least eating of the lightest meats, as they who have over-gorged themselves. This Sign doth so surely declare the Obstruction of the Hypochondria, although there be neither pain nor apparent swelling, that *Prosper Martianus* in his Comment upon the aforesaid Book of *Hippocrates*, affirmeth, That he hath concluded that the Bowels were obstructed, before ever he handled the Hypochondria.

The stretching of the right Hypochondrion sheweth the part affected, together with the other signs, and sometimes pain, that is heavy and dul, which encreaseth after meat, especially if exercise immediately follow; sometimes a dry Cough; difficulty of Breathing by reason of the neerness of the Diaphragma, and a greater weight of that part than of any other.

The Signs of the Causes are if it come from Humors, the pain is more heavy, extending and fixed: if from Wind, it is sharper and more moveable: if from cold Humors, there is more sense of weight in the right side, the Face is more pale, there is no Feaver nor thirst; there was a cold and thick diet without exercise that preceded: if it comes from hot Humors, there is less weight, more thirst, the

Face

Face is yellow by reason of Choller, or red by reason of Blood, there is a Feaver and a pricking pain sometimes, and hot diet went before.

The Prognostick of this Disease is to be made thus,

A New Obstruction is easily taken away, an Old hardly.

An Obstruction of the Liver, except it be speedily and wholly taken away, useth to bring many Evils, namely, Putrefaction of Humors, Feavers, Inflamations, divers Fluxes of the Belly, constant and vehement, because the nourishment can pass to the parts: the Chollick, Jaundice, Evil Habit of body, Dropsie, Scirrhus, and other infinite Diseases, so that *Avicenna* calls Obstructions the Mother of Diseases.

An Obstruction made by Humors, is worse than that which comes of Wine.

That which comes of Crude and Flegmatick Humors, or of Wind, is sometimes cured by a Feaver; because the Heat doth discuss the Flatus, or Wind; makes Flegm thin, and more apt to flow.

The Cure of an Obstruction is to be begun with an universal Evacuation of the whol body; by a Potion agreeable to the nature of the Disease: Afterwards if there be signs of Plethory or fulness, and if the body be not very thin, you must draw blood out of the Liver Vein in the Right Arm.

Then prescribe this Apozeme,

Take of *Smallage, Parsley, and Fennel Roots, infused a whol night in white Wine, of each one ounce: the Roots of the greater Celandine, two ounces: Fearn Roots, Elicampane barks, the Roots of Capars, the inward bark of an Ash, and Tamarisk, of each half an ounce: Wormwood, Agrimony, Maiden-hair, Germander, the tops of Saint Johns-wort, and the Lesser Centaury, of each one handful: Smallage, Parsley, Annis, and Fennel seeds of each half an ounce: clean Senna, Polypody of the Oak, and the Kernels of Carthamus seeds, of each two ounces: Epythimum, or Dodder of Thyme, one ounce: Ginger and Cloves, of each one dram: the flowers of Tamarisk, Marigolds, and Red Fitches, of each one pugil: make a Decoction to a Pint and a quarter, dissolve in the straining of the Syrup of the Five Roots, and of Roses Solutive, of each two ounces: make an Apozeme, clarified and aromatized with two drams of Cinnamon for four mornings draughts, adding to every Dose one dram of Cream of Tartar, salt of Wormwood and Tamarisk, of each half a scruple.*

In the last Dose (if the first hath not sufficiently purged) dissolve of the Electuary of Citrons Solutive and Diacarthamum, of each one dram and an half.

Sometimes we put white Wine in the Decoction before mentioned. Sometimes a little Vinegar, according to the nature of the Patient.

If the Patient be dainty, and will not take an Apozeme, instead thereof you shal give these Broths,

Take of *Smallage, Parsley, and Sparagus Roots, of each half an ounce: Agrimony, Hysop, Maidenhair, of each one handful: Cristal of Tartar one dram: boyl them with a Chicken or a neck of Mutton, make Broth for nine dayes together every morning.*

The Cristal of Tartar dissolved in new made Broth and strained is better, for when the Decoction is cold, for the most part it congealeth again, and is separated from it: and when you give it in the Broth, you must stir it about well with a Silver Spoon afore it be taken, or you will leave the greater part in the bottom of the Dish.

Every other day, infuse in his Broth, half an ounce of Senna and one dram of Annis seeds.

As long as he taketh these Medicines, and after, as often as need requires, let the Region of the Liver be fomented every morning one hour before he taketh his Broth, and every evening one hour before Supper, with this following Fomentation:

Take of *Marsh-mallow, and Briony Roots, of each one ounce and an half: the Roots of Danewort, Cypress, Eryngus, the Barks of the Roots of Capars, and the middle rind of Tamarisk, of each one ounce: the Leaves of Mallows, Marsh-mallows, Violets, Agrimony, Germander, Mints, and Wormwood, of each one handful: Lin-seed, Fœnugreek, and Juniper Berries, of each half an ounce: Coriander seeds, and yellow Sanders, of each three drams: Broom, Elder, Chamomel, and Melilot flowers, of each one pugil: boyl them all in two parts of Chalybeate Water, and one of white Wine, added in the end: and when it is strained, add half a pint of Vinegar: Foment the part as aforesaid.*

After the Fomentation, let the part be anointed with the following Oyntment.

Take of *Oyl of Lillies and Capars, of each two ounces: the Juyce of the Roots of Briony and Smallage, of each three ounces: Boyl them till the Juyces are consumed, adding the Oyntment of Marsh-mallows, and Gum Ammoniack dissolved in Vinegar, and strained, of each one ounce: Carrot seeds, and Spicknard, of each one dram and an half: yellow Wax as much as will make an*

Unguent.

Unguents. Use it as aforesaid, adding in the time of anoinring, a little Vinegar of Roses.

After the use of these Remedies, this Opiate following is good to wear away the reliques of the Obstructions, and recover strength to the part.

Take of *Conserve of Wormwood, Maiden-hair, and the Flowers of Tamarisk, of each one ounce: the Conserve of Elicampane Roots, and Citron peels candied, of each half an ounce: one candied Myrobalan: candied Nutmegs three drams: Confection Alkermes two drams; the Pouder of Diarrhodon Abbatis, one dram: Salt of Wormwood, and Tamarisk, of each two scruples: Saffron one scruple: Amber-greece half a scruple: with the Syrup of Citrons make an Opiate, of which let him take the bigness of a Chesnut every morning two hours before meat, and drinking after it, a little Hippocras.*

Warm Baths are also very good, in which softening and opening things have boyled.

If the Obstructions are very stubborn, these following Pills are very good.

Take of *the best Aloes infused in the Juyce of Wormwood very well, half an ounce: Gum Ammoniack dissolved in Vinegar and strained, three drams: Myrrh dissolved in warm Wine, and strained, two drams: the pouder of the three Sanders, and Crystal of Tartar, of each one scruple: Agarick newly made into Troches, and of the best Rhubarb, of each two drams: the Salt of Wormwood and Tamarisk, of each half a dram: Saffron half a scruple: With the Syrup of Roses solutive, make a Mass of Pills, of which let him take half a dram two hours before dinner twice in a week.*

Instead of the Apozeme aforesaid, you may make an old Cock Broth, when the Obstructions are old and stubborn.

Take of *Polypody of the Oak, and Carthamus seeds, of each one ounce and an half: the tops of Time and Epithimum, of each one pugil: Annis, Fennel, and Caraway seeds, of each two drams: clean Senna two ounces: Crystal of Tartar half an ounce: beat them, and fill the Belly of an old Cock therewith: boyl them in three parts of Water, and one of white Wine, till the flesh of the Cock fall from the Bones. Make Broth, and let the Patient take it four mornings.*

Or (which is better) make a Decoction for one draught every day of the fourth part of the Ingredients.

To this Broth you may ad Herbs, and opening Roots in a smal quantity.

Quercetan commends exceedingly in his Dispensatory, the Compound Pouder of the Root of Cuckoo-pintle, to open Obstructions; of which you may give two drams for divers daies together, in a convenient Decoction.

But of all Remedies, to take away old Obstructions, Medicines made of Tartar, Vitriol, and Steel, are the best.

Of Tartar there is made Crystal, Salt, and Spirit, which are to be given in divers forms.

The use of Crystal of Tartar is formerly mentioned in the Apozeme, and Physick Broths, made either of a Chicken, or old Cock

Concerning this Medicine, yong Physitians are to be admonished, that it is of more force than it is commonly supposed to be, although we seldom observe it in Practice, by reason of the negligence of Apothecaries, the deceit of false Chymists, and vulgar Distillars, which still Chymical Medicines to the Apothecaries, of which, few are good, but most adulterate.

The negligence of Apothecaries for the most part is, That they had rather buy Crystal of Tartar of such fellows, than make it themselves (though it be the easiest of all) because they sell it cheaper than they themselves can make it: for those Impostors will sell a pound for seven pence, or eight pence, from which alone the Apothecaries might argue deceit, perceiving that they would be loosers in so selling, if it were rightly made.

The deceit lieth here, Those Impostors put a little Tartar, and a great deal of Allum into their Decoctions; not because Tartar is sold dearer, but because it yields but a little Crystal; but Allum will run all into Crystal. Hence it is that the Physitians are deceived of their intentions, because Allum is astringent, which is contrary to the opening Faculty which they desire.

Moreover, There is another wrong done to this Medicine, when it is made in a Brass Kettle, which leaves a malignant quality upon the Medicine; for it is a known and vulgar saying among Apothecaries, You must not boyl sharp things in Brass Vessels, because they easily pierce, and attract a noxious Tincture from them. But the Crystals of Tartar are most sharp, called by some *Acidum Tartari*, or the sharpness of Tartar.

This Error is often made by Apothecaries; and almost all they who make this Crystal themselves use Brass Vessels, so that I have seen some Tartar look Skie-colored from the Verdugreece which it hath taken from the Copper. Therefore Physitians shall do conscienciously, honorably, and for the good of their Patients, if they cause their Apothecaries to make Crystal of Tartar themselves, and in Glass, Iron, or Earthen Vessels glassed.

The Salt of Tartar hath great power to open Obstructions, and may well be mixed with Apozems, Opiates,

Opiates, and opening Pills. But the chief uſe of it is in a looſening Ptiſan, or Barley Water, made of two drams of Senna, infuſed in eight ounces of cold Water, with one ſcruple, or half a dram of Salt of Tartar, by which the Tincture of the Senna will be powerfully extracted; ſo that this Ptiſan ſhal work better than any ordinary one; and continued many daies it takes away all Obſtructions: we have ſeen Quartan Agues cured, by the uſe of it fifteen daies together. If you fear the ſharpneſs of the Salt of Tartar, you may correct it with the Spirit of Sulphur, or of Vitriol, putting fifteen drops of Spirit, to half a dram of Salt.

You may find the uſe of the Spirit of Tartar in our Obſervations for the Cure of the Dropſie, under the Title of a Diuretical Spirit.

Of Vitriol, only the Oyl or Spirit is uſed in Apozemes, Syrups, and other Forms of Medicines.

This following Syrup, which is good againſt all Obſtructions of the Liver, Meſentery, and Veins, may be for an Example, by which, many through continual Feavers falling into evil Habits and Dropſies, have been perfectly cured.

Take of *the Roots of Smallage, Elicampane, Sparagus, Eringus, of each one ounce: Leaves of Agrimony, Ceterach, Maiden-hair, Dodder, Carduus, of each one handful: the tops of Sea Wormwood, and of the leſſer Centaury: of each half a handful: Winter Cherries one ounce: Spring Water ſix pints: boyl them till two pints of the ſtraining remain; in which diſſolve of the Juyce of Succory, and Burnet refined, of each one pint: the juyce of Fumitory and Hops, of each ſix ounces: Fennel and Parſley juyce, of each three ounces: Vinegar of Squils one pint and an half: white Sugar ſix pound: make a Syrup, to which add of the Oyl of Vitriol as much as will make it ſharp; of which let the Patient take three ſpoonfuls before Break-faſt, and as much before Dinner and Supper.*

The Natural ſharp Baths ſhew the Efficacy of Vitriol, the uſe whereof is frequent and profitable in all Diſeaſes coming of Obſtructions.

But the Spirit of Vitriol mixed with the Salt or Spirit of Tartar, is much commended by the Chymiſts, and of them they make Tartar Vitriolate, and that rare mixture of Spirit of Vitriol, Tartar, and Treacle, which may be mixed with other openers.

Laſtly, There are divers Medicines made of Steel, both by Galeniſts, and Paracelſians, which plainly opening Obſtructions preſently, compel al men to uſe them, even thoſe who reject all Medicines made of Mettals, as Enemies to our Natures.

Theſe Medicines of Steel are made either in the Form of Wine, Syrups, Opiates, Pills, or Lozenges.

Steeled Wine is made thus:

Take of *the Filings of Steel four ounces: Eryngo Roots, and Elicampane, of each one ounce and an half: yellow Sanders one ounce: red Coral and ſhavings of Ivory, of each ſix drams: Cloves, Nutmeg, and Cinnamon, of each two drams: Flowers of Broom, Roſemary, and Epithimum, of each two pugils: the beſt white Wine ſix pints: ſteep them eight daies in Balneo Mariæ, or behind an Oven: then ſtrain them through a Hippocras bag, and let the Patient take two or three ounces every morning two hours before meat for fifteen daies, or more if need require.* Or make it thus:

Take of *Steel prepared with Sulphur, one ounce: Elicampane, and the middle rind of Tamariſk, of each half an ounce: Senna three ounces: Epithimum one ounce: Fœcula Brioniæ, and Cinnamon, of each two drams: Pouder of the three Sanders, one dram and an half: Agrimony Water, and white Wine, of each one pint: Infuſe them three daies in Balneo Mariæ. Let him take three or four ounces when it is ſtrained, three hours before meat.*

Commonly they uſe the Infuſion of Steel in white Wine, or Claret, for ordinary Drink, with much Water for two or three months together.

You may make a Syrup of Steel thus:

Take of *Filings of Steel ſteeped in Vinegar, two ounces: the inward rind of Tamariſk half an ounce: Ceterach half a handful: Cinnamon three drams: Wormwood and Agrimony Water, of each half a pint: white Wine one pint: Infuſe them ſix daies in a warm place: add to the ſtraining, Sugar one pound and an half: make a Syrup. Let the Patient take every morning two or three ounces.*

For the Preparation aforeſaid of Steel, you muſt ſteep it in Vinegar in the Sun, while the Vinegar is conſumed three times, and then grind it upon a Marble.

This Syrup may be made Purging, and better, if you diſſolve the Sugar with a pint of Water wherein three ounces of Senna, and half an ounce of Rhubarb have been ſteeped a whol night.

The Pouder of Steel is made thus, taken out of *Quercetan*'s Diſpenſatory.

Take of *the ſhavings of Steel, either commonly prepared, or with Sulphur, one ounce: the fœcula of the Root of Cuckow-pintle one dram and an half: Amber-greece half a dram (for the Poor, a*

Cordial

Cordial Species will serve instead of Ambergreece) Coral and Pearl prepared, of each two drams: Amber prepared and Cinnamon, of each four scruples: Sugar as much as is sufficient to make a pleasant Pouder, of which let him take half a spoonful, or two drams with Wine for fifteen dayes.

Of the same Pouder and Sugar dissolve in Turnep Water and Confection Alkermes, may be made very pleasant Lozenges to be taken as the former: Or,

Take of *Steel prepared with Brimstone half an ounce: confection Alkermes two drams: Ambergreece one scruple: Sugar dissolved in Rose Water four ounces: make Lozenges: Let him take two drams every morning.*

Instead of the Pouder the Extract of Steel may be used, made in white Wine for those who are dainty.

Divers Opiates are made also of Steel; these following are best.

Take of *the conserve of the Flowers of Tamarisk and Maiden-Hair, of each one ounce and an half: conserve of the Roots of Elicampane six drams: Steel prepared either with Sulphur or Vinegar one dram: Salt of Tamarisk one dram: Spirit of Vitriol half a scruple: with the syrup of candied Citrons make an Opiate, of which let him take two or three drams every morning*: Or,

Take of *the filings of Steel half a pound: white Wine one Pint and an half: mix them in a Glass, set it to the fire, let be boyled gently, stirring it up and down, till a scum arise, then take the frothy and fat part of the Steel which is separated by the heat, and put it with Wine into another Glass: do thus four times, adding fresh Wine, heating, and separating them, set it on a gentle fire, till it be hot and grow thick as Honey, keep it for your use, which is this,*

Take of *Steel so prepared six drams: Parsley and Carrot seeds, the Species of Diacurcuma, and Diarrhodon Abbatis, of each one dram: Cinnamon half a dram: with clarified Honey make an Opiate, of which take three drams or half an ounce every morning.* Or,

Take of *Steel prepared with Brimstone one ounce: the best Senna, Rhubarb, and Agarick, of each two drams: Diarrhodon Abbatis one dram: Saffron one scruple: with syrup of Roses solutive, make an Opiate: of which let him take two drams every morning for fifteen dayes, three hours after meat.*

Pills of Steel are as good as the rest, and they may be made thus,

Take of *Steel prepared with Brimstone half an ounce: the best Aloes, Senna, Agarick and Rhubarb, of each one dram: Diarrhodon Abbatis half a dram: Saffron half a scruple: with syrup of Roses solutive make a mass of Pills: of one dram whereof make six guilded Pills, which give in the morning for fifeeen dayes, three hours afore meat.*

To these Pills you may ad according to the kind of the Disease and the Patients occasion, of Gum Ammoniack, Sagapenum, Opopanax, Myrrh, Gentian, Birth-wort, Mastich, Nutmeg, and the like.

In all Medicines made of Steel, this is alwayes to be observed, That Exercise be used after them, as Walking, to make the strength of the Medicine to go into the parts obstructed: This Walking must be for two hours after; after which give a little Broth, in which opening Herbs and Roots have been boyled.

Besides al these Remedies, the Chymists commend Mercurial Purges, of Mercurius dulcis, especially given with ordinary Pills, or Extracts, because Mercury doth violently penetrate, and open Obstructions.

The *Bezoard* Mineral is very much commended, and given with Mercurius dulcis: You may give it thus made.

Take of *Bezoard mineral twelve grains: Mercurius dulcis six grains: conserve of Roses one or two drams: make a Bolus which must be given many dayes.*

If there be an Obstruction of the Liver in a Cholerick body, with a hot and dry distemper of the part, then must you give cooling or temperate Openers, which shal be shewed in the Cure of Flatus Hypochondriacus, mentioned among the Diseases of the Spleen.

For his ordinary drink let him take Water and smal Wine wherein Steel hath been infused: Or, a weak Decoction of Tamarisk, Agrimony, Ceterach, Maiden-hair, Burnet, all or some with Wine,

Some commend the Infusion of the Wood against the Stone called Lignum Nephriticum for ordinary drink: Others the Decoction of Eglentine or Sweet-bryer which opens very powerfully, and strengtheneth; and they say that many have been Cured of desparate Diseases by that alone.

But the Infusion of the filings of Steel made in white Wine, or thin red Wine, doth open better mixed with the aforesaid Waters, or with ordinary Water: for by this Medicine alone many Virgins have been Cured of the Green Sickness, and this Wine wil work better, if they take every morning two ounces of cleer Wine, besides the ordinary drink.

CHAP.

Chap. 4. *Of the Jaundice.*

THe Jaundice is a yellow color of the whol Body, coming of Choller, ſpread over all the Skin.

It is therefore a Symptome of the Quality changed. And now preſently, that vulgar difficulty which is controverted by almoſt all Writers, offers it ſelf; namely, That the yellow color in the Cornea, doth immediately hurt the Sight, making all objects appear yellow. To which (that I may anſwer in a word, without circumſtances) I ſay, That it is a diſeaſe in the encreaſe of Number; for ſince the Cornea ought to be void of all color, that it may let the Species of Objects paſs through pure and unchanged, if it have any preternatural color, it hath a Diſeaſe in the encreaſe of Number, that is, more than what is neceſſary to the Natural Conſtitution thereof.

Authors do make two ſorts of Jaundice; Yellow, and Black. The Black proceeds from the Spleen and is very rare: therefore here treating only of the Diſeaſes of the Liver, we will ſpeak only of the Yellow Jaundice.

The ſpreading of Choller upon the Skin, comes from many Cauſes; which may be reduced to three Heads: namely, An Evil Diſpoſition of the Liver; An Obſtruction of the Bag that contains the Gall; And the malignity of the Chollerick Humor.

The Evil Diſpoſition of the Liver is divers; as Diſtemper, Inflamation, Obſtruction, Schirrus, and whatſoever may ſo weaken the part, that Excrementitious Choller cannot be ſeparated from the Blood, but is with it diſtributed through the whol Body.

The Obſtruction of the Bag or Cyſtis, which contains the Gall, hinders the paſſage of it into the Guts, whereby it remains in the Liver, and goes from thence with the Blood into the whol Body. This Obſtruction is either from groſs Flegm, or Choller abounding; ſomtimes from little ſtones which are often bred in the Bag of Gall; which may alſo be made narrow in the Paſſage, by the compreſſion of ſome part nigh unto it, which is inflamed or ſchirrous.

The Evil of the Chollerick Humor conſiſts, either in the great quantity thereof, which cannot be regulated by Nature, nor be ſeparated from the Maſs of Blood, or which ſo filleth the Bag of the Gall, that it cannot contract it ſelf to expel it; or it conſiſts in an evil quality, which by corrupting of the Humors, doth hinder their due Evacuation, or ſtirs up Nature ſuddenly to caſt it forth, as you may obſerve in a Critical or Symptomatical Jaundice. This Corruption happens in continual Chollerick Feavers; as alſo after Poyſon is taken, or from the biting of ſome venemous Creature, by which the whol Blood is turned into Choller.

The Signs of the Yellow Jaundice are manifeſt; namely, a yellow color through the whol Body, eſpecially in the white of the Eyes. Alſo an itching, and lazineſs, bitterneſs of the Tongue, ſomtimes Chollerick Vomitings, and Hiccoughs.

The Signs of the Cauſes are to be taken from their proper Fountains; for if the diſtemper of the Liver be hot, this Diſeaſe comes from Inflamation, Obſtruction, Schirrus, or the like: the knowledg of which is to be taken from their proper Chapters.

Theſe things properly ſhew the Obſtruction of the Bag of the Gall, white Excrements, and a Belly bound through the want of Choller, which uſeth to make the Excrements yellow, or red, and to ſtir up the Expulſive Faculty of the Guts like a Clyſter. The Urine is very yellow, inclining to red and if you put a Linnen clout therein, it will dye it yellow.

If it come from the malignity of the Chollerick Humor, the Excrements of the Belly are high colored, and alſo the Urine, eſpecially if it follow a putrid Feaver, when the Jaundice is a Symptome, and then after the coming of the Jaundice the Feaver remains: but if it be critical, the Feaver ceaſeth, and the Excrements with the Urine are wel colored. The External Cauſes, as Poyſon, and venemous bitings may be declared by the Patient, and thoſe about him.

The Prognoſtick of the Jaundice is various, according to the variety of Cauſes.

That is more Curable which comes from the Obſtruction of the Bag containing the Gall, becauſe its paſſages are neerer the Guts, and the Matter cleaving thereto, is eaſily ſent into them, provided that the Obſtruction come not from a ſtone, which becauſe it cannot be diſſolved, renders the Diſeaſe incurable.

The Jaundice coming from an Inflamation or Schirrus of the Liver, is moſt dangerous; for one commonly ends in an Impoſthume, the other in a Dropſie.

They who in a Feaver, have the Jaundice before the ſeventh day, are deſperate, *Hipp.* Aph. 62. Sect. 4. againſt which Aphoriſm, there is another of, *Hippocrates* oppoſed, which is in 4. *de victus ratione in acutis*, in theſe words: *In a Chollerick Feaver, if the Jaundice come before the ſeventh day, with chillneſs, the Diſeaſe is cured; but if it come without chillneſs, it is deadly.* There is

Reason for what he saith; for when in the third, fourth, and fifth day, the Crisis (or ground of Judgment) is healthful, if it be by Sweat, Urine, or Stool, why should not a Critical Jaundice fall upon those daies? And Experience from many allowed Authors doth testifie that the Jaundice doth often happen with safety before the seventh day. Now these Authors do interpret the aforesaid Aphorism thus; namely, That *Hippocrates* by the seventh day, understands any Critical day, and he mentioneth the seventh as the most noble day, and to be taken for all the rest. But that is a true Critical Day of Judgment, afore which, a ful Concoction of the Matter causing the Feaver, did appear.

The Cure of the Jaundice, is by taking away of the Causes: For if it come from a hot distemper of the Liver, or a Tumor in that part, you must consult with the Chapters afore mentioned for the Cure of them.

But that which comes upon acute Feavers, if it be Critical needs no Cure. Yet if it be Symptomatical, the Cure of it depends upon the Cure of the Disease upon which it depends.

That which comes from the Obstruction of the Cystis, or Bag of the Gall, is cured by taking away of the Obstruction, which may be conveniently done by the Remedies mentioned in the former Chapter. To which we may add these as more proper.

First take away part of the Humor with this following Bolus:

Take of *the Electuary of the Juyce of Roses, and Diaprunis solutive, of each three drams: the pouder of Rhubarb one dram: Saffron half a scruple: With Sugar make a Bolus; which you may give once or twice, if the Body be of a very ill habit.*

As for Phlebotomy, though *Galen* denyeth it, as unprofitable, yet if you perceive abundance of Blood, it is very good to abate it.

After general Medicines, this following Infusion used six or seven daies, doth commonly pluck this Disease up by the Roots, if it be but yong.

Take of *Madder Roots half an ounce: the greater Celandine one handful: the tops of Sea Wormwood, and of the lesser Centaury, of each one pugil: Cinnamon half a dram: Saffron half a scruple: Infuse them a whol night in eight ounces of white Wine, and add to the straining half an ounce of white Sugar. Let him take it in the morning three hours before dinner.*

Or you may make this Decoction following:

Take of *Celandine Roots and Leaves one handful: the Leaves and Flowers of St. Johns wort, of each half a handful: the shavings of Ivory and poudered Goose dung, of each three drams: Saffron half a dram. Put the Pouder of Goose dung and the Saffron in a clout, and boyl them all in equal parts of white Wine, and Wormwood Water to one pint: and when it is strained, add one ounce of Sugar. Give it for three morning draughts, and repeat it if you think fit.*

Quercetan commends for this purpose, the Dung of a green Goose that eats Grass in the Spring; and the dried white Dung of an Hen, given for divers daies to the quantity of half a dram or a dram; and he saith that the Dung of these Aerial Creatures, is full of Nitre and Sulphur, and hath a wonderful Faculty to cut, attenuate, and dissolve.

Dioscorides commends the Juyce of Horehound for this Disease, and since his time, others, and especially *Forestus*, who reports that some were only cured by the use of the Syrup of the Juyce of Horehound, when other means failed.

Gesner commends the Nettle Root thus prepared:

Take of *Nettle Roots one pound: Saffron one scruple: beat them wel, and take out their Juyce with white Wine, and let the Patient take four ounces every morning for four or five daies, and cover himself to sweat after it.*

While inward Medicines are given, let the Region of the Liver be anointed with this following Oyntment.

Take of *the Juyce of Smallage, Parsley, and Succory, of each one ounce: white Wine Vinegar half an ounce: the Oyl of Tamarisk two ounces: boyl them til the Juyces and Vinegar be consumed; then add of yellow Sanders and Spicknard, of each one dram: Wax, as much as will make a Liniment.*

After the Obstructions are taken away, the yellow colour will presently vanish by the strength of Natural Heat, which will discusse the Humor from the Skin. But that it may sooner be gone, make a Bath of warm VVater, and rub the Body therein with a Bag of Barley and Bean Meal.

Chap. 5. *Of the Scirrhus of the Liver.*

THe Scirrhus of the Liver, is a hard Tumor without pain, bred of a thick Humor, faſtened and hardened upon the Liver.

This Scirrhus is Two-fold; either it is Exquiſite, or Perfect; or Imperfect. That which is a perfect Scirrhus, is laid down in the Definition propounded, which is without Pain or Sence.

That which is not exquiſite or perfect, hath ſome kind of pain, and comes from a Matter leſs hardened; in a word, it is a Scirrhus beginning, and not confirmed: but that which is exquiſite is confirmed, ſo that they only differ in Degrees.

A Scirrhus breeds in the Liver two waies; either from Defluxion, or Congeſtion of a thick and glutinous Humor upon the part; or from Inflamation, which diſſolveth the thin Humors, and leaveth the thick.

The Matter of the former, is Flegm or Melancholly, either ſent from other parts, or bred in the ſubſtance of the Liver by an evil Concoction. For the producing of this Humor, evil diet is a main cauſe, if it be of thick, cold, and viſcous, or clammy Nouriſhment; as alſo a Flegmatick or Melancholick Conſtitution, and a Natural ſtraightneſs of the Liver. From whence *Galen* ſaith, 13. Meth. That a Scirrhus eaſily breedeth in the Liver, Spleen, and Reins: In the Liver, becauſe the Paſſages are narrow, and it is nouriſhed with thick blood in the Spleen, becauſe it receiveth the thick blood: and laſtly, in the Reins, becauſe they are nouriſhed with thick blood.

The Cauſes of the latter Scirrhus, which followeth other Humors, is the immoderate uſe of diſcuſſing Medicines, or of Repercuſſives, which by cooling and binding, do thicken the Matter, and keep it from diſſolving. Beſides, the Matter of the Diſeaſe, which is properly cold and thick, and will not be diſſolved; or the weakneſs of the part, which cannot help the breathing forth of the Humors. And laſtly, a cooling and thickening Diet.

The ſigns of a Scirrhus in the Liver are, a hardneſs in the right Hypochondrion, and that more than in an Obſtruction, next a heavineſs in that part, eſpecially when there is violent breathing, no Feaver, nor pain, by which it is diſtinguiſhed from an Inflamation, or there is but little pain, as when the Schirrus is not exquiſite or perfect: There is leſs repoſe upon the left ſide, becauſe the Liver being hard and heavy, doth then lie upon the Stomach, and burden it: the color of the Face is pale, and and greeniſh, becauſe when the Liver is Schirrus, there is no good Blood produced by it: The whol Body alſo, is fallen away, becauſe there is neither Sanguification, nor diſtribution of Nouriſhment as it ought to be.

The Prognoſtick of this Diſeaſe is given by *Galen*, 2. *ad Glaucum, cap.* 4. in theſe words: *An inſenſible Scirrus is incurable, but that which is a little ſenſible is curable, though with much difficulty.* Alſo *Galen*, cap. 5. of the ſame Book, ſaith, *We have cured a Schirrus of the Liver often in the beginning of it; but when it hath been of long continuance, neither could I, nor any other that I ever heard of, cure it.*

An old inveterate Scirrhus turns to a Dropſie incurable, of which ſome die ſooner than others, if they have a looſneſs of the Belly therewith of long continuance.

A Scirrhus which followeth the Jaundice, or cauſeth the ſame, is dangerous. Whence *Hippocrates*, Aph. 42. Sect. 6. ſaith, that if the Liver grow hard in them who have the Jaundice, it is an evil ſign.

The Cure of a Scirrhus, is firſt by the taking away of the Antecedent Cauſe, by the Apozem which is preſcribed in the Obſtruction of the Liver. To which you may add other Medicines proper to open Obſtructions.

Afterwards you muſt diſcuſs the hard Matter with mollifying and opening things. For this end the Steel Pills above mentioned, are excellent, eſpecially if you add thereto, Bdellium, Ammoniacum, and Sagapenum.

But if the hardneſs be very great, you muſt give theſe Pills following, many daies together.

Take of *Gum Ammoniacum diſſolved in Vinegar, and ſtrained, and again made thick, two drams*: *Bdellium, and Storax, of each four ſcruples: mix them. Take one dram every other day.*

And in the daies between, let him uſe the Opiate, or ſtrengthening and opening Lozenges preſcribed in the Cure of Obſtructions.

Theſe following Pills have a wonderful Vertue to ſoften a Scirrhus, and diſſolve it.

Take of *the beſt Aloes, and Gum Ammoniack diſſolved in Vinegar, ſtrained, and again made thick, of each half an ounce*: *Mercurius dulcis two drams*: *Diagridium one dram*: *With Oxy-*

mel of Squils make a Mass of Pills; of which let him take half a dram four hours before Dinner, for twenty or thirty daies together.

Zacutus Lusitanus, Obs. 41. Lib. 1. Praxis Admir. reports that there was a strong Scirrhus cured by the use of Conserve of Horehound forty daies together.

Some Practitioners commend the use of Turpentine thus prepared:

Take of *Turpentine washed with white Wine one ounce and an half: Sugar half an ounce: Give one dram every day, or every other day, for it is an opening Medicine that provoketh Urine, and looseneth the Belly.*

All the time of Cure, let the Patient take white Wine, or thin Claret steeled, for his ordinary Drink.

Also the other Preparations of Steel before mentioned, are very good.

Outwardly you must apply Fomentations, Oyntments, and Plaisters, thus made:

Take of *Marsh-mallow Roots, Briony and Lilly Roots, of each one ounce: Mallows, Violets, Pellitory of the Wall, Wormwood, and Agrimony, of each one handful: Linseed, Fœnugreek and Dill seed, of each half a dram: Chamomel, Melilot, and Rose flowers, of each one pugil: boyl them in three parts of Water, and one of white Wine, or in Water and Vinegar. With the straining, let the Region of the Liver be fomented every morning and evening.*

If the Scirrhus be very great, add to the Decoction, Flowerdeluce, wild Cucumers, and Dwarf-Elder Roots, and make the Decoction in Tripe Broth, and white Wine.

Take of *Oyl of Lillies, Chamomel, Melilot and sweet Almonds, of each one ounce: Oyl of Roses and Wormwood, of each half an ounce: Gum Ammoniack dissolved in Vinegar three drams: Wax two drams: make a Liniment, with which anoint the part aforesaid, after the Fomentation.*

If you desire a stronger Liniment,

Take of *the Juyce of Briony and wild Cucumer, of each two ounces: the Oyl of Capars and Tamarisk, of each three ounces: white Wine one ounce: boyl them till the Juyce and the Wine be consumed, then add two drams of Wormwood in pouder, Gum Ammoniack dissolved in Vinegar half an ounce: with a little Wax make a Liniment.*

Take of *the Emplaister de Mucilaginibus one ounce: Melilot half an ounce: Gum Ammoniack melted in the Juyce of Wormwood three drams: soften them with a little Oyl of Wormwood and Lillies, and make a Plaister to be laid on after the Liniment.*

The Leaves of Henbane boyled in Vinegar are good to be outwardly applied to the part, made into the form of a Cataplasm or Pultis, with Oyl of bitter Almonds.

To these you may add Baths made of softening and digesting things, and of strengtheners, such as we prescribed for Fomentations; and let the Patient use them by turns.

And finally, Make an Issue in the right Leg, that part of the Matter offending may be that way drawn forth.

Chap. 6. *Of the Dropsie.*

Hippocrates makes two kinds of Dropsies; namely, An Universal, and a Particular. An Universal Dropsie, is that which is in the whol Body, or over the whol Belly: a Particular, is that which is only in one part: hence there is the Dropsie of the Head, Breast, and Womb; of which, here we shall not speak, but only of the Universal.

Galen gives three kinds of this Universal Dropsie; namely, Ascites, Tympanites, and Anasarca, or Leucophlegmasia.

Ascites is a swelling of the Belly, caused of a serous Humor; nor doth the Belly only swell, but many times the Feet, Legs, Thighs, and Cods. Nay, an Ascites sometimes begins with a swelling in the Feet, which ascends after to the Legs, and so to the Thighs and Belly.

This serous Humor, as it is of the Nature of Water, it is cold; but as it is salt, it hath in it heat, which then is encreased by the neerness of the Bowels, and more by the putrefaction which it gathereth by long continuance: hence comes a Feaver and Thirst, namely, from the stinking salt vapors which do infect the mouth of the Stomach.

It falls out sometimes, that this Watery Humor, is not contained in the Cavity of the Belly, but in certain Bladders growing to the parts of the lower Belly.

An Example whereof is given by *Schenkius*, Lib. 3. Observation; and *Mauritius Cordæus*, Com. 5. in *Hipp.* Lib. 1. of Diseases in Women. *Galen* supposed (and almost all Physitians, new and old, have followed him) that every Dropsie comes of a cold Liver, which cannot Sanguifie or make Blood compleatly, but instead thereof much Water, Flegm, or Wind. Which Opinion, as it is most true in Anasarca, and approved; so in Ascites and Tympanites it is much questioned by many

Modern

Modern Writers, because in the opening of many that died of Dropsies, the Liver hath been found very sound, as is manifest by many relations in those Authors mentioned. Moreover, *Hippocrates* 2. Prorrhet. wittily affirms that a Dropsie may come either from the Liver, or from some empty part: by an empty part, he meaneth all that space from the Ribs to the Guts, and the parts contained in it. Also *Hipp.* 4. *de morb. Mulierum*, mentions a Dropsie coming from the Spleen. To which places of *Hippocrates* they usually answer thus, That the Liver is alwaies affected either primarily or secondarily; so that there is never a Dropsie before there is a hinderance of Sanguification, or breeding of Blood. But two Reasons do strongly oppose this Doctrine: The first is from the Experience before mentioned, namely, That if the Liver ought necessarily to suffer in the producing of a Dropsie, it would never be found free and unknit in the Dissection of a dead Body. The second is, That if the Liver should breed watery Blood, it would be sent into the whol Body, as in Anasarca; nor can a sufficient reason be given, why that serous Humor bred in the Liver should be sent to the Belly, and not to other parts.

As for the cold distemper of the Liver, that is denied by *Trallianus*, *Avicenna*, and others, who affirm that a Dropsie may arise from a hot distemper of the Liver, and cannot be cured but by cooling means. And this may be maintained by the Authority of *Hippocrates*, in 2. Progn. *A Dropsie* (saith he) *coming after an acute disease, is evil, for it doth not take away the Feaver.* If therefore a Dropsie may come while the Feaver is, it is cleer that there is still a hot distemper. Neither could that ever please me, which is usually spoken by *Galens* Servants, That the Native heat is dissolved by a hot distemper, and much diminished, and that diminished heat may be called cold. For so in a Hectick Feaver, and other constant Feavers, in which the Natural Heat is much diminished, we should alwaies blame a cold distemper, and the Symptomes which follow should be imputed to cold, and not to heat. From whence, who doth not perceive that there would arise a great confusion in the searching into the Causes of Symptomes.

Among the late Writers, *Carotus Piso*, whom *Sennertus* followed, hath dived most deep into the true Causes of Ascites, which he affirms to come from a serous Matter contained in the Meat and Drink, which by reason of some preternatural Cause, is stayed too long in the Gate and Hollow Veins, not sent into the Body, as in a Natural state and condition it useth to be, but into the capacity of the Abdomen. This serous Humor is retained in the Veins, from the whol Body, by reason the attractive faculty of the Parts, to which it should be carried, is either hurt or hindered.

Now the chief parts which draw the serous Matter, are the Liver and the Spleen. For they attract the Chylous Matter in which the moisture of Meat and Drink is contained. As also the Spleen draws Drink to its self, pure and without mixture; as *Hippocrates* taught, and Experience confirms, That they who drink much after Meat, do presently avoid it by Urine; which learned Authors say, is by reason the Spleen sucks the watery Matter before there is a perfect Concoction made in the Stomach.

The Attraction or drawing quality of the Liver and Spleen, is lost chiefly by defect and weakness of Natural Heat: the Natural heat is debilitated by a cold or hot distemper, or by Suffocation.

A cold distemper coming either from too cold a Diet, from loss of too much Blood and Spirits, or any other Cause, doth destroy the Natural Heat of the Liver and Spleen, and so hinder their Actions.

A hot Distemper doth disperse the Native Heat; whence being made weaker, the Liver and the Spleen become less Active. This comes from Feavers, much Wine, or hot Meats.

Lastly, The Natural Heat is weakned by Suffocation, when there is too much Blood in the Veins, especially if it be foul, as when the Terms or Hemorrhoids are stopt, by which the Blood was clensed formerly, but now by stoppage corrupted.

Also the Attraction or drawing vertue of those parts, is hindered by Obstructions, which hinder the free passage of the serous Matter. So a Dropsie followeth a Scirrhus of the Liver and Spleen, not only because those parts being weakened cannot produce good Blood, but especially because they are not able to attract, and send to other parts whatsoever is drunk.

Here it may be objected, That in a Dropsie the whol Body is nourished by Blood bred in the Liver of a Chylous Matter, which it draweth to it self. We answer, That the Liver doth better attract that which is most familiar unto its self, and most fit to be made blood; but it draweth to it less than is sufficient, by reason of the weakness of the attractive faculty. Hence it is that the Body grows lean, because it draws some water along with the Chylus, and leaves the rest in the Meseraick Veins, and the Veins of the lower Belly, which is by degrees carried into the Capacity of the Abdomen.

We do not deny that Sanguification or making of Blood, is hindered in a Dropsie, especially when the distemper is very cold or very hot, or the Obstruction or Scirrhus great, for then there cannot be a perfect making of blood. But we deny that that is the next and immediate Cause of a Dropsie; but rather an effect thereof, when the Water corrupted in the Abdomen, doth also corrupt the Bowels that swim therein.

Next to the Liver and the Spleen, the Reins do attract the watery Matter which is in the hollow Vein, and free the whol body from the superfluity thereof, so that if at any time they do not their office, there remains much matter in the veins, which being sent to the Abdomen do quickly make an Ascites; now the attraction of the Veins may cease for divers Causes, because of a Cold Distemper, Tumors, Ulcers, and Obstructions, which wil Diminish, Abolish, and intercept their Function.

Lastly, The distribution of Water is hindered from some external Cause, as when much cold Water is drunk, which Nature cannot govern, nor sufficiently distribute into the Veins: So *Carolus Piso* reports of a yong man that had a Tertian Ague, and drinking Water exceedingly in his Fit fel into an Ascites, from which by the taking of one Lozenge of Diacarthamum he was Cured by discharging the Water which was in the Abdomen, but if he had continued drinking so much water any longer, he had not been so easily Cured, because it would have brought great obstructions and a cold distemper of the Bowels, by reason of the loss of natural heat.

But it is questioned of many by what wayes that serous matter should be carried by the Veins into the Capacity of the Abdomen, to whom we may plainly answer, by saying from *Hippocrates* that in a living body al things are passing to and fro, so that in time of necessity not only thin and serous Matter, but also that which is very thick may be sent through the insensible passages: So in a Pleurisie blood and matter wil pierce through the thick substance of the Pleura and Membrane which covers the Lungs, and be spit forth at the mouth: So in a Fracture of the Leg or Thigh, which hapens without hurt to the Muscles and Skin, the matter which floweth from the broken bone, pierceth through the substance of the other parts and wets the boulsters and rowlers.

So also in a Dropsie oftentimes a great quantity of Water is vented in one day by giving of Quicksilver, which cannot be except the Water conteined in the Abdomen do pass through the Tunicles of the Guts.

Nor is the Objection of *Fernelius* of any force, when he saith that Nature had in vain made so many open wayes, if the Humors can pass through those invisible passages: For we Answer, That in an ordinary and natural motion of Humors ordained for the nourishment of the whol body, those passages are necessary through which they may easily flow, but in an extraordinary case, provident Nature doth find out extraordinary wayes by which she may cast out hurtful Matter, or at least send it to a place less dangerous.

Fernelius Objects again, That in them who have died by a stoppage of Urine for twenty dayes together, it was never perceived that any Water went through those blind passages: We Answer, That Nature doth not alwayes work the same way in preternatural Causes, nor send hurtful Humors to the same places, but especially to those parts which are more disposed to receive them through weakness.

So in the Suppression or Stoppage of Urine, the Serous Humor flowes openly through the Veins and Arteries and fils them, and if it find any part weaker than the rest it falls forceably upon it: hence it is that some die of the hurt of one or other remarkable part. So nothing hinders (if the parts of the Abdomen in which the Veins and Arteries end) be grown weak, but that the Watery Humor may be sent into its capacity or hollowness.

Nor is that true which *Fernelius* would infer, namely, That a Dropsie never comes from suppression of Urine, for Reason and Experience teacheth the contrary: as we shewed afore in the Discourse of the Loss of Attraction in the Reins: but you must observe that the Stoppage of the Urine doth make an increase of Water rather in the branches of the hollow Vein, then of the Gate Vein or *Vena Porta*, by which the watery Humor chiefly flows into the capacity of the Abdomen as appears by what followeth.

Therfore we may Answer this Question, by saying, That the water got into the hollow of the Abdomen, by the insensible passages though there are also other manifest wayes by which it may pass.

Hippocrates, Aph. 55. Sect. 7. hath shewed them, for (saith he) they who have much Water about the Liver, if it get into the Omentum, or Kels, their belly will be filled with Water, and then they die. The meaning of which Aphorism is (though *Galen* did not plainly see it) that the Water from the Liver doth flow into the Branches of the *Vena Porta* which go to the Omentum, and when they are filled, either by their Tunicles made thin by Diapedesis or Rarefaction, or by the mouths of the Vessels being opened by Anastomosis, the Water gets into the Cavity of the Abdomen: This happens often in the Spleen also, when it draws Water in abundance from the Stomach, as appears by many sayings of *Hippocrates*; and in *lib. 4. de morbis*, he saith, That Water may press from the Spleen to the Omentum or Kell, in these words, *Drink is also carried into the Stomach with which when it is filled the Spleen takes it from thence and sends it to the Veins and the Omentum.* From which we may perceive, That Water chiefly gets into the Abdomen, by the Veins of the Omentum which are called Epiploicæ, and Gastrepiploicæ, although it may pass also through their Veins.

Besides

Beſides the aforeſaid Cauſes of a Dropſie, which are more ordinary, there are mentioned by Authors ſome leſs uſual, confirmed by Obſervation: and theſe come from the diſorder of ſome peculiar part, not only of the Liver and Spleen, but alſo of the Meſentery, Sweet-bread Stomach, Guts, Reins, Bladder, and Womb, namely, when the *Homioſis*, or faculty to convert nouriſhment into themſelves is hurt, from ſome great Diſeaſe, ſo that their proper nouriſhment is corrupted and turned into Water. So *Galen*, Comment. Aph. 55. Sect. 7. ſaith, that watery Bladders are ſometimes in the out-ſide of the Liver, which being broken, ſend Water downwards into the Cavity of the Abdomen, the encreaſe whereof breeds a Dropſie.

Fernelius ſuppoſeth that the Liver being very dry, hath clefts like the parched Earth, and that through them there flows a conſtant Water which fills the Cavity of the Abdomen. Others ſay that a Dropſie may come from the Guts, if they be perforated or pierced through, and yet the Patient dieth not preſently, but a watery Humor ſtill flows through them into the Cavity. It comes alſo from the Kidneys, if they be much Ulcerated, and water flow from them. So *Platerus* reports of one that in a Dropſie had many Ulcers in both Kidneys, from whence both matter and water flowed into the Cavity. There is alſo a Story in *Sennertus*, taken out of *John Heinzius*, of a certain Woman who had a Dropſie from the diſtemper of the Womb, whoſe Bowels were all ſound, except the Teſticles or Stones, which were found to be ſwollen as big as the Head of a new-born Child, being blew, hollow, and full of Ulcers, from which there came a ſerous Matter which cauſed the Dropſie.

The Dropſie called Tympanites, hath its name from *Tympanum*, a Drum, becauſe the Abdomen is ſtretched out like a Drum, and if you ſtrike it with your hand, it ſounds like it. This ſtretching comes from wind ſhut up in the Cavity of the Abdomen. But ſometimes this wind is in the Cavity of the Guts; which *Platerus* obſerved, ſaying in ſome that have been thought to die of a Tympany, after they were opened, have had no wind coming forth of the Cavity of the Belly; neither did their Bellies, but their Guts ſink, eſpecially the thin Guts, which were ſo ſtretched with wind that they came forth ſo rouled together that they could not be again thruſt into the Belly.

But we muſt obſerve that the wind which cauſeth a Tympany, is ſeldom contained in the Belly alone, but for the moſt part mixed with Water; as in an Aſcites, not only Water, but Wind alſo is contained; and both theſe Dropſies have their name of that which predominateth: if there be more wind than water, it is a Tympany; but if more water than wind, an Aſcites: but if they be equal, it is between both; ſo that we may doubt whether that Dropſie be a Tympany, or an Aſcites.

The Material Cauſe of Wind, is a crude Humor and thick, whether it be Flegm or Melancholly, which being ſtirred and made thin by heat, ſends forth thick vapors, which are hard to be diſſolved, and theſe are called *Flatus*.

This Crude and thick Humor, is partly in the Stomach and Guts, but eſpecially between the Membranes of the Midriff and Guts, from whence it is more hard to be moved than from the Cavity of the parts aforeſaid. The 11. Aph. Sect. 6. of *Hippocrates*, makes this very probable; *They who have pains and gripings about the Navel and Loyns, which cannot be removed, have a dry Dropſie.* For becauſe the Meſentery is joyned to the Guts by the fore part, and to the Loyns by the hinder part, we may eaſily perceive that the pains which reach from the Navil to the Loyns, come from the Meſentery. Beſides, The greatneſs of the pain, ſhews that the Cauſe is deep in the ſubſtance of the part, and cannot be removed: For if it were in the Cavity of the Stomach and Guts, it would eaſily be remedied.

Concerning the Efficient Cauſe, Authors differ; ſome ſay from a cold, ſome from a hot diſtemper. They which accuſe a cold diſtemper, think they have *Galen* on their ſide, who ſaies that wind is bred of a weak heat. To whom we anſwer, That heat may be ſaid to be weak in reſpect of the Matter which cannot be diſcuſſed or diſſolved thereby. But this is to be imputed to the Matter, which is rather defective than the Heat, which is commonly too great and preternatural. And we muſt acknowledg with the Learned, That a burnt Melancholick Humor is moſt fit to breed a Tympany, which proceedeth from the parching heat of the Bowels; which heat doth ſtir that Matter, and produceth from it thick vapors that are hard to be diſſolved.

The Dropſie called *Anaſarca*, comes of a Flegmatick Humor ſpread through the whol Body, and therefore the Body is ſwoln and white; from whence the Diſeaſe is called *Leucophlegmatia*. This Flegm comes from a cold Liver, which inſtead of good Blood, produceth crude and flegmatick; which when it cannot be turned into the ſubſtance of the parts, leaveth the crude part that is unfit for Nouriſhment upon them, and makes them ſwell; hence comes Anaſarca, or *Leucophlegmatia*.

This Diſeaſe beginning, is called *Cachexia*, or an evil Habit, and turns into *Leucophlegmatia*, from which it differs but in degree.

The Antecedent Cauſes are, all things that cool the Liver too much, and hinder its Concoction, as too much cold and moiſt Diet, the ſtopping of the Terms or Hemorrhoids, Obſtructions, cold Tumors,

mors, Scirrhus and large bleeding, and other great Evacuations, by which the Native heat is diminished.

The Signs of a Dropsie, and every sort of it, may be known by what hath been said.

In an Ascites, you may know that there is water in the Abdomen by its greatness, soft Swelling, and broad, and if you press the sides, you shall easily hear a noise of Water, and when the Patient turns from one side to the other, and then the whol Belly lieth as it were on that side: then the Feet and Cods swell, but the higher part grow less; the Urine is little and thick, sometimes red, because there goes but little water to the Reins and Bladder, and staies long there, by which means it becomes red and thick. In the progress or encrease of the Disease, there is difficulty of Breathing, by reason of the abundance of water which lieth upon the Diaphragma or Midriff, especially when the Patient lieth down, and therefore he is forced to stand or sit most usually. There is a troublesom thirst from the saltness of the Humor, with which the Stomach swimmeth. And lastly, there is a constant lingering Feaver from the corruption of the Water, which at length doth corrupt all the Bowels swimming therein.

In a Tympany, the Belly being strook, sounds like a Drum; the Bulk of the Belly is less burdensom than in an Ascites: There were formerly pains about the Navel and Reins, when the Patient lieth with his face upwards, his Belly remains hard and stretched forth, nor doth it turn aside when he turneth himself.

Lastly, In an Anasarca, not only the Belly, Thighs, and Leggs, but also the Hands, Arms, Breast, Face, and whol Body swel; and wheresoever you thrust your finger upon it, it will pit, and leave an impression. The color of the Skin is pale and Earthy, the Flesh soft and loose, the Water thin and white, breathing difficultly, and sometimes a lingering Feaver.

As to the Prognostick: Every Dropsie is dangerous, and hard to be cured, and the more hard by how much the elder, but Anasarca is least dangerous; but Ascites and Tympany are sometimes one more dangerous than another, according to their Causes. So if Ascites come from a Scirrhus of the Liver, or Ulcer of some internal part, it is more dangerous than a Tympany; but if it come of drinking too much Water, or new Obstructions, it is less dangerous.

A Dropsie is more easily cured in Servants than in Free-men, in Country men than in Noble men; for they will be better constrained to abstain from Drink and the like, and be more patient than they who have liberty.

A Dropsie from the hardness of the Spleen, is less dangerous, than from the hardness of the Liver, because the Spleen is not so Noble a part.

A Dropsie coming upon an acute Disease, is evil; nor will it abate the Feaver, but cause pain and death. *Hipp.* 2. Prognost.

They whose Liver being full of water, discharge it into the Omentum or Caul, their Belly is filled with Water, and they die. *Hipp.* Aph. 55. Sect. 7.

He who hath Water between the Skin, or an Anasarca, if that water which is in the Veins flows into the Belly, the disease is cured. *Hipp.* Aph. 14. Sect. 6. This Aphorism seems contrary to the former. But this contrariety is answered, by saying that *Hippocrates* in the former, by Belly, understood the Cavity of the Abdomen; but in this, Belly its self; for if the water flow through the Belly, the Disease is at an end. Which Opinion is more clearly explained by *Hippocrates*, in Coacis, in these words: *In the beginning of a Dropsie, if there come a flux of the belly, without want of Concoction, or Crudity, it is prevented.* You must mark that it is in the beginning; for if a flux come upon an old Dropsie, it is not so safe, because commonly there is some fault in the Bowels by continuance, as a Scirrhus, or corruption of substance, which begets new matter, and death also. Hence *Hipp.* in Prorrh. saith, that they who are to be cured of the Dropsie, must be *Eusplagchnous*, that is, those that have sound Bowels, free from the great Diseases mentioned. Otherwise, if a flux of the Belly happen with a Scirrhus or corruption of the Liver, they die presently, as *Galen* shews 2. ad Glau. cap. 5. And *Avicen* saith thus: *Straitness of breath, and flux of the belly, signifie death within three daies.*

Little Urine in Dropsies, is evil; the less, the worse, because the Drink runs into the Belly, and not into the Reins. Hence *Hipp.* in Coac. saith, *Little and thick Urine, and a Dropsie that is Feaverish, is deadly: but if the quantity of Urine encrease, we may hope well.* Which is elegantly laid down by *Celsus*: *And then* (saith he) *there is hope of Health, when they void more Urine than they drink: Therefore it is good every day to measure the Urine, and the Drink, and the Belly with a string, especially while Physick is given, to see whether it grow less or not; for if it encrease notwithstanding the Medicines, it is desperate.*

Imposthumes, or spots in the Legs of Hydropical men, are deadly. *Hippocrates* confirms this 7. Epid. in the History of *Bion* and *Ctesiphon*; the one whereof died presently after an Impostthume which ran in his left Knee: the other after he had a red and blewish gathering in his right Thigh.

Men

Men that are cured by Medicines for Dropsies, if they fall again into the same, are desperate, *Hipp.* in Coac. For it signifieth that there is some incurable fault lurking in the Bowels, which after the water is emptied, renewech it again.

If the Patient have sound Bowels, and strength, eat his meat, and concoct well, and be not sick after; breath freely, have no pain, cough, or thirst, and his tongue grow not rough, so much as in his sleep; if Medicines presently purge him; and if without Medicines he be bound, and in a Natural order; and if his Urine change according to his Diet, or if he be not faint. If all these things be present, the Patient is recovered; if some of them, there is hopes of amendment; if none, he is desperate.

In a dry Dropsie, to piss by drops is evil. *Hipp. in Coacis.*

A Tympany in a Melancholick Body, is deadly, and Remedies are given in vain.

If in a Leucophlegmatia, a strong Diarrhœa follow, the Disease is cured. *Hipp.* Aph. 29. Sect. 7. but this Diarrhœa must be at the beginning, or at least before the Disease be old, or the strength of the Party weakened; but if it happen when the Patient is weak, it is dangerous.

The Cure of the Dropsie consists in the Evacuation of the Matter, whether it be in the whol Body, or in the Abdomen or Belly; in taking away the Cause that produced that Matter, and in strengthening of the Bowels, especially the Liver.

The chief and most ordinary Causes are, great Obstructions, and Scirrhus or hard Tumors, the Cure of which Diseases is to be taken out of their proper Chapters. But if they will not suffice, you must use these following, which are more proper in Dropsies, and vary them according to the variety of Causes, and the Bodies sick.

And first, you must give an ordinary Purge, by an opening Apozeme that expels flegm and water, made thus:

Take of *the Roots of Eryngus, Madder, Smallage, Parsley, and Elicampane, of each one ounce: Valerian, Asarabacca, Dwarf-Elder, and Flowerdeluce Roots, of each half an ounce: the Bark of the Roots of Capars, and inward Bark of an Ash and Tamarisk, of each six drams: the Leavs of Agrimony, Ceterach, Maiden-hair, Germander, St. Johns-wort, Wormwood, and the lesser Centaury, of each one handful: Soldanella, or wild Mercury half a handful: the seeds of Carrots, Parsley, and Fennel, of each half an ounce: scraped Liquoris, and Raisons stoned, of each one ounce: clean Senna one ounce and an half: Agarick tied in a clout three drams: the seeds of Dwarf-Elder, and Jallap Roots, of each one dram and an half: Ginger and Cloves, of each one dram: Broom, Elder, and Tamarisk flowers, of each one pugil: Boyl them in equal parts of steeled Water, and white Wine added towards the end, to a pint and a quarter. When it is strained, dissolve therein, Syrup of Succory with Rhubarb, four ounces. Make a cleer Apozeme, aromatized with three drams of Cinnamon, for four morning draughts.*

After Universal Purging, let the Patient take this following Pouder once a week:

Take of *Clean Senna, Gummy Turbith, Hermodacts, Dwarf-Elder seeds, Jallap, and Mechoacan, of each one dram: Cream of Tartar two drams: Cambugia, half a dram: the pouder of Diamber, Diarrhodon Abbatis, and Fennel seeds, of each one scruple: Sugar candy three drams: Make a Pouder of them all, of which infuse two drams, or two drams and an half all night in four ounces of white Wine. Let him take the Wine and the Pouder in the morning.*

The Syrup of *Rhamus solutivus*, or Buckthorn, made of the Juyce of its Fruit, called Rhein Berries, with Sugar, given one ounce at a time, doth wonderfully purge water. It must be taken presently after Dinner.

Or give the Magistral Syrup made of the Decoction of the Apozeme afore mentioned, the dose of Purgers being encreased; or this following:

Take of *the Juyce of Damask Roses two pints: the Juyce of the Roots of Danewort, Flowerdeluce, Succory Leaves, and Agrimony, of each half a pint: the seeds of Danewort, Mechoacan Roots, and of the best Rhubarb, of each two ounces: Spicknard three drams: yellow Sanders two drams: Crystal of Tartar one dram and an half: infuse them a whol night, and after a little boyling strain them; then put as much white Sugar as is of the Liquor: boyl it into a Syrup, and add to it of the salt of Wormwood half an ounce. Let him take two drams with opening Broth once in a week.*

Or instead of this Syrup, or at other times when it is not taken, you may give these Pills, which purge the evil Humors, and also open Obstructions.

Take of *the best Aloes, steeped in the Juyce of Wormwood, half an ounce: Gum Ammoniack dissolved in Vinegar and strained, the best Myrrh, and Crocus Martis prepared with Sulphur, of each three drams: Salt of Wormwood and Tamarisk, of each two drams: Diagridium, and Troches of Alhandal, of each one dram: Saffron, Ginger, and Salgem, of each one scruple: With Oxymel of Squils make a Mass of Pills, of which give half a dram twice in a week two hours before Dinner.*

Also Purging Wines are much commended for the cure of the Dropsie, of which there are divers Forms. But these are best:

Take of *the Roots of Asarabacca, and Mechoacan, of each two ounces: the French Flowerdeluce, and Bark of the Roots of Danewort and Elder, of each one ounce: Ehcampane Roots half an ounce: dry Wormwood and Dodder of Time, of each one pugil: clean Senna one ounce: Soldanella or Sea-foal-foot two drams: the Troches of Rhubarb and Agrimony, of each one dram: Mace and Cinnamon, of each half a dram: Scammony four scruples: white Wine two pints and an half: Infuse them three daies in Balneo Mariæ; the vessel being well stopped, keep it without straining. Let him take two or three ounces in the morning, twice or thrice in a week.*

Among Medicines for drawing forth of Water, the Juyce of French Flowerdeluce is very much commended, if it be drawn forth with white Wine, it may be given to three ounces; it provoketh stool and urine very powerfully. But because it is very offensive to the mouth and stomach with its sharpness, it useth to be mixed with Manna or Honey. *Massaria* gives it thus:

Take of *Juyce of Flowerdeluce newly drawn with white Wine, three ounces; the best Manna one ounce and an half. Mix them for a Potion.*

Platerus in his Observations; *I gave* (saith he) *to one in a Dropsie, of the Juyce of Flowerdeluce to drink with Honey two ounces, and he often pissed and purged; and after he had taken it twice or thrice, his Belly ceased swelling, and his Feet, and he was cured.*

Rhubarb is commended of some, because it purgeth noxious Humors, and strengtheneth the Liver. And *Stocherus* saith that he cured many with the use of Rhubarb given every third or fourth day, one or two drams in an opening Decoction. Also in *Scoltzius* his Epistles, there is a famous Story of one who was cured of a Dropsie, only by the use of Rhubarb, which he took every day in such a quantity as was necessary to purge.

The Troches of Rhubarb are much commended by all Authors. And *Mathæus de Gradi* reports that a certain Duke of *Orleans*, was cured with them alone, taking two drams twice in a week.

Michael Paschalius saith that he cured a Dropsie with the same, making them into Pills, by reason of their bitterness.

The Chymists commend the Extract of black Hellebore., *Aquila Cœlestis*, and *Mercurius vitæ*, and they mix them with other vulgar Medicines, from whence followeth a plentiful Evacuation of Water. But they had need of strong Bodies who take them.

Mercurius dulcis works most gently, and *Mercurius Diaphoreticus*. But *Antimonium Diaphoreticum* cures without manifest Evacuation, if it be calcined with Salt-Peter till it be white: but the Diaphoretick or Sweating Medicine made of the Butter of Antimony, cures all kinds of Dropsies best.

But you must observe in the giving of all sorts of Purges, That they, especially if strong, are not to be given often, as *Galen* teacheth Lib. 9, *Cata Topous*, because they weaken the body, and then there will more water be bred afterwards. Therefore you must prescribe strengtheners and openers oftener than purgers. And Experience teacheth us, That the Evacuation by Urine in this Disease hath better success than that by stool.

Instead of Purgers, you may give Clysters, which discuss wind, purge water, and take down the belly, made thus:

Take of *Mallows, Mercury, and red Coleworts, of each one handful: Soldanella or wild Mercury half a handful: Annis, Caraway, and Dill seeds, of each three drams: Chamomel, Melilot, French Lavender and Broom flowers, of each one pugil: boyl them to a pint. In the straining dissolve of Diacatholicon one ounce: Hiera Picra half an ounce: Oyl of Dill and Lillies, and of common Honey, of each two ounces. Make a Clyster twice in a week.* Or,

Take of *very sowr Leaven half an ounce: common Salt one pugil: Boyl them in as much Water as is sufficient: strain it, and add to it, the Urine of a Child four ounces: Oyl of Rue three ounces: Clarified Honey one ounce. Make a Clyster.* This *Valeriola* commends highly.

This following Clyster, brings forth Water in abundance:

Take of *Coloquintida one dram, Infuse it for a night in three ounces of white Wine: when it is strained add thereto, Tripe Broth one pint: common Oyl two ounces: Salt-Peter melted one ounce: strong Vinegar one spoonful: make a Clyster.* Or,

Take of *the Pulp of Coloquintida one dram: Clean Bran one handful: boyl them in white Wine for a Clyster.* Or,

Take of *Carthamus seeds one ounce: the best Agarick half an ounce: the pulp of Coloquintida three drams: Centaury the less, Germander, and both the Wormwoods, of each half a handful: boyl them to a pint. In the straining dissolve of Oyl of Chamomel, Rue, and Capars, of each one ounce: Honey of Roses two ounces: make a Clyster.* Or,

Take of *the Emollient Decoction one pint: thick vomiting Wine, the Infusion of Crocus metallorum four ounces: Diaphœnicon one ounce: make a Clyster.*

Blood-

Blood-letting here, is for good Reaſon omitted, except the Diſeaſe come from ſtoppage of the Terms or Hemorrhoids. And then you muſt not bleed except it be in the beginning of the Diſeaſe, before the Liver be grown too cold.

Iſſues, Bliſters and Scarrifications, uſe to cauſe Gangrenes, or mortifications in a Dropſie, becauſe the heat of the part being ſmal, is quickly extinguiſhed: Therefore it is better wholly to abſtain from theſe kind of Remedies, although ſomtimes they have done ſome people good.

Paracenteſis, or cutting of the Skin, is ſeldom to be uſed, becauſe few are cured thereby, eſpecially becauſe the Patients, or their kindered will not yield to it before the Diſeaſe is confirmed, and the Bowels are ſo putrefied that there is no hope. Therefore for the moſt part they die the ſecond or third day after they are cut. The wiſer ſort will have the Inciſion made in the beginning or encreaſe of the Diſeaſe, before the Bowels are corrupted. Neither is it neceſſary at that time, becauſe the diſeaſe being ſmal may more ſafely be cured with other Medicines.

Among empty ing Medicines, Sweatings are accounted moſt profitable, which, as they are alwaies good in Anaſarca, ſo in a Tympany, or Aſcites, they ſomtimes hurt, namely, when drineſs of the Liver (which is uſual) cauſeth the Diſeaſe. Moreover, it is commonly impoſſible to make men in Dropſies ſweat. But if the Liver be not dry, Sweats are good in all kinds of Dropſies, eſpecially when they decline, to diſcuſs the reliques of the watery Humor by the Habit of the Body. So *Valeriola* reports that he cured an Aſcites with a Decoction of Guajacum given fourty daies together. It is good to make the Decoction with ſteeled Water and Wine. The Chymicks commend Antimonium Diaphoreticum.

Martinus Rulandus makes a Sudorifick of Juniper Berries, which becauſe they are forceable to provoke Urine, may do good both waies. It is thus made:

Take of *Juniper berries bruiſed three handfuls*: *Sack as much as is ſufficient*: *boyl them to halfs and give two ounces every morning, covering warm after it.*

Horatius Reſerus in *Scholtzius*, boaſteth that he hath cured many Boyes, and ſome Women of the Anaſarca with Syrup of St. *Ambroſe*, which is a Sudorifick: Its deſcription is in an old Diſpenſatory called *Luminare majus*, thus:

Take of *Gromwel ſeeds huſked two ounces*: *Spring Water half a pint*: *boyl them till three or four ounces of water only remain*; *which being ſtrained, mix it with as much Sack, and give it warm*; *it will ſweat him plentifully if he be covered warm.*

But thoſe Medicines are beſt which purge by Urine, and the Cure is commonly better this way.

One of the chief, is two ounces of the Juyce of Chervil given every morning in Wine for many daies.

Opening Wines that purge by Urine are good in this caſe; as this,

Take of *Elicampane, Smallage, Fennel, and Flowerdeluce Roots dried, of each one ounce and an half*: *Roots of Valerian, Gentian, Aſarabacca, and Squils or Sea Onions, of each one dram*: *the middle Bark of an Elder, and Saſſaphras, of each ſix drams*: *dried Wormwood, Agrimony, Germander, and Maiden-hair, of each two drams*: *the tops of Centaury the leſs, and Broom flowers, of each one dram*: *Parſley, Annis, and Dill ſeeds, of each one dram and an half*: *Cinnamon two drams*: *Spicknard half a dram*: *bruiſe them together, and infuſe them in white Wine ſome few daies, and let him drink thereof every morning.*

The ſteeled compound Wine preſcribed in the Obſtruction of the Liver, is good for the ſame.

The Decoction of Juniper mentioned, is to be reckoned among the Diureticks. And if you fear it is too hot, you may make it in Water, and put a little Spirit of Vitriol to it.

Fonſeca commends the uſe of Turpentine waſhed with Barley Water, and he gives half an ounce thereof twice in a week.

And laſtly, The Spirit of Salt, Tartar, and Vitriol, given in a true quantity with an Apozeme, or other opening Decoction for ſome daies, do wonders; becauſe they being very thin, do run into all the parts of the Body, and open them.

The Salts of Wormwood, Juniper, Bean Stalks, and the like, given in white Wine, do the ſame. Or in want of Salts you may make a Lee of the Aſhes of the ſame, which will be ſufficient

Matthiolus upon the 87. Chap. Lib. 1. of *Dioſcorides*, ſaith, *That a Lee made of Juniper Aſhes with white Wine, and four or five ounces thereof taken, doth powerfully provoke Urine, ſo that I have ſeen ſome men cured of a Dropſie with it alone.*

Moreover, In the whol time of the Cure, you muſt uſe ſtrengtheners to the Liver; for it is in vain to purge water, if you do not hinder the encreaſe of it: which you cannot do except you refreſh the Liver, and bring it to its former temper.

Among the chief Strengtheners is Cinnamon Water; of which you may give one Spoonful every morning, and before Supper.

But *Galen* in his Eight Book *Kata Topous* commends the Electuary called Cyphoides by the Arabians from the Wine whereof it is made, of which you may give half an ounce in the morning, according to *Hollerius* it is thus made,

Take of *Currans clenſed half a pound: boyl them in old Sack to the conſiſtence of a Pultis, ſtrain them after they are pounded, and then ad of the conſerve of Roſemary flowers, Citron bark candied, and Cinnamon, of each one dram: the Pouder of Aromaticum Roſatum, Diamargariton calidum, and Diacinamom, of each two ſcruples: Lignum Aloes half a dram: Saffron half a ſcruple: mix them for a ſoft Electuary.*

The Opiates preſcribed for the Obſtruction of the Liver are here very profitable.

The Conſerve of Sea Wormwood is very good, made of one part of the Leaves and three of Sugar with which *Matthiolus* in his Chapter of Wormwood ſaith ſome have been Cured.

Poterius makes an Opiate of Conſerve of Roſes, Specificum, Somachium, and Crocus Martis, and Oyl of Vitriol, by which only Medicine he ſaith he hath Cured Dropſies. The Specificum Stomachium, is Antimony fixed.

The Cure of men in Dropſies lieth much in their drink: therefore there muſt be care of that, that he drink ſparingly, and endure thirſt as much as may be: for it is known that many have been Cured only with abſtaining from drink and eating of dry meats without other means: For Drink let him take Elicampane or Wormwood, Juniper, or Steeled Wine, or let him uſe the aforeſaid Steel Medicines. *Avicen* forbids men in a Dropſie to ſee Waters. But if you fear too much Heat or Drineſs, or if the Patient be Abſtemious, he may uſe the Decoction of Juniper, of Guajacum, or Saſſaphras, or of Madder, which provokes urin very much, either alone, or with white Wine: But becauſe he muſt abſtain from Drink (as we ſaid) and yet there is great Thirſt, it muſt be aſſwaged by Fits with waſhing the mouth with ſteeled Water and Vinegar, or with often chewing Maſtich or the like; for it wil draw water to the mouth, not only (as ſome think) out of the head alone, but from the Stomach and Cavity of the Abdomen, and therefore it will do much good.

Of Meats we ſay thus, That he muſt chuſe the Dryeſt and avoid Sweet meats as the Plague.

While you uſe Internals, forget not Externals, for they are of great force to diſcuſs the Humor of the Belly; as Fomentations, Bags, Oyntments, Pultiſſes, and Plaiſters: The Chief are made thus,

Take of *Marſh-mallow and Lilly Roots, Cypreſs barks, Capar barks, middle barks of Aſh, Tamariſk, dwarf-Elder, & the greater Snakeweed of each three ounces: Wormwood, Agrimony, Marjoram, Organ, Calamints, Peny-Royal, Rue, Ground-pine, Southernwood, and Elder, of each one handful: Parſley, Dill, and Cummin ſeeds, of each one ounce: Chamomel, Melilot, and Broom flowers, of each three pugils: Spickenard, Schœnanth, Nutmegs, Cloves, and Cinnamon, of each half an ounce: Salt and Allum, of each half a pound: boyl them all in a Lee made of Oak Aſhes, or branches, with this Foment the whol Belly with Spunges dipt therein and ſtrained.*

Or,

Take *the Urine of a ſound Boy, four Pints: Lapis Prunellæ, three ounces: boyl them to the conſuming of the third part for a Fomentation.*

Aqua-pendens Commends Lime Water, in which he dips a new Spunge which wil compaſs the whol Abdomen; this he ſtrains and binds on, by which he affirmeth, That the Waters that Cauſe the Dropſie are conſumed, the cold and moiſt diſtemper of the Bowels are taken away, and the hardneſs of the Spleen diſſolved.

Claudinus quencheth the Lime in a Salt Bath Water, that is either of Brimſtone or Salt-peter, and bindeth cloſe the Spunges dipped therein and ſtrained with Rowlers to the Belly, and keeps them there long, and then changeth them.

You may make Bags of the Ingredients of the former Fomentation boyled in white Wine, and applied warm to the belly.

After the Fomentation let the belly be anointed with Oyl of Dill, Rue, or Flower-de-luce, mixed with Pouder of Ammoniacum, Galangal, Dill, Bay-berries, and the like.

It is alſo good to anoint with the Oyl of Scorpions according to *Matthiolus*, and with a little Oyl of Roſemary.

Many do make Oyntments and Liniments of ſtrong Purgers, which draw VVater violently from the Dropſie, and aſſwage the Swelling of the belly, but they are dangerous, for the Purging Quality getting between the Muſcles and the Membranes, doth often ſtir up a deadly Looſeneſs.

After Liniments, or if they be omitted you may apply Cataplaſms or Emplaiſters: This following is the beſt,

Take of *the Roots of wild Cowcumbers well bruiſed and ſteeped twenty four hours in Vinegar of Squills, one pound: clarified Honey two Pints: mix them, and boyl them to the conſiſtance of a Cerat, and ad in the end four ounces of the Pouder of Cumminſeed, make an Emplaiſter for the belly to be renewed every day:* Or,

Take

Take of *dryed Cow-dung one pound: Brimſtone and Cummin ſeeds Poudered, of each two drams: New Wine boyled called Sapa: or of the Urine of a Boy, as much as will make a Cataplaſm.*

A Cataplaſm of Rhadiſhes bruiſed and laid to the Navel and Reins, doth provoke Stools and Urine.

Galen Commends a Cataplaſm of Snails bruiſed with their Shells, which muſt be kept to the belly till it fal off of its own accord; it draws water forth violently.

Valeriola makes it in form of a Plaiſter thus,

Take of *Cow-dung one pound: Goats-dung half a pound: boyl them in ſtrong Vinegar, and beat them in a Mortar with three ounces of Brimſtone, and one ounce of Allum: the Juyce of Spurge and dwarf-Elder newly drawn, of each three ounces: Lupine and Orobus meal, of each two ounces: the Pouder of Soldanella, Annis, Fennel, and Cummin, of each two drams: common parched Salt, three drams: Turpentine, four ounces: Pitch, ſix ounces: make a Plaiſter.*

It is worth the Obſervation which *Wierus* and *Varignana* ſay they have found by Experience that a Toad found in the Woods, cut through the belly and tyed to the Reins, doth provoke Urine violently; and when you wil evacuate more, apply another.

Petræus alſo reports that the Pouder of the ſame Toad dried and calcined in an Oven, drunk half a dram in Wine or other Liquor, doth wonderfully expel the Dropſie by Urine.

The firſt Inventor of which Experience deſiring thereby to deſtroy himſelf, was cured thereby contrary to expectation.

Alſo this following Cerat made of a Toad is excellent,

Take of *Toads two pound: the Juyce of dwarf Elder three Pints: Oyl one pint: Wax half a pound: boyl them in a luted Pot to the conſumption of half, ſtrain them for a Cerat; ſpread this upon a Leather and lay it to the Spleen it evacuateth all waters.*

All the time of the Cure you muſt ſtrengthen the Liver and Stomach, if the humor doth begin to abate, or is not ſo great that it hinders the Vertue of outward Medicines from coming to the part.

Take of *the Oyl of Orange flowers one ounce: the Oyl of Spike three drams: the Oyntment of Roſes, the ſtomach Cerot of* Galen, *of each two drams: diſtilled Oyl of Maſtich two ſcruples: the diſtilled Oyl of Wormwood one ſcruple: Oyl of Nutmegs one dram and an half: white Wax a little: mix them for a Liniment to be applied to the ſtomach.*

Take of *Sea Wormwood three drams: Horehound and Roſemary, of each two drams: Red Roſes two pugills: Chamomil flowers and Bay Leaves, of each half an handful: Orange peels and ſweet wood, Aloes of each three drams: Cypreſs Roots, Schœnanth, and Spikenard, of each half an ounce: with two parts of the beſt Wine, and one part of Wormwood and Agrimony Water make a Decoction, with which Foment the Region of the Liver with a ſponge firſt waſht in Wormwood Water.*

Take of *the Oyntment of Roſes and Cerot of Sanders, of each three ounces: Red Roſes, Endive and Sorrel ſeed, of each one dram: Spikenard, Schœnanth, dryed Wormwood, and Styrax Calamita, of each four ſcruples: Oyl of Maſtich or Wormwood as much as will ſuffice to make a Liniment to be applied to the ſame part after the Fomentation.*

For the moſt part in a Dropſie the Thighs, Legs, and Feet have a cold ſwelling, and for the diſcuſſing of it a Lye is good in which the Roots of Dwarf Elder, and Elicampane, Roſemary Leaves, Marjoram, Thyme, Bayes, Organ, Salt and Allum have been boyled.

Although the things aforeſaid are chiefly uſed, yet ſomtimes they are not neceſſary, namely, when the Dropſie comes in a hot and dry Conſtitution from hot cauſes which diſperſe the natural heat, as in vehement Chollerick Feavers, for then cold things for the Liver mixed with warm Openers are beſt, ſuch as are uſed in continual Feavers: And the Magiſtral Syrup above mentioned made of the Juyce of Roſes, Succory, and Agrimony.

For ordinary Drink give a Decoction of Succory Roots and Calcitrapa, or white Chamelion, which is not unpleaſant; or of other Openers, but in a greater quantity than above, which may quench thirſt, aſſwage the heat of the Liver, and moiſten the drineſs thereof: It is not amiſs to confirm this Doctrine by a famous example (though it be allowed by *Avicen*, *Trallian*, and others) becauſe it ſeems ſtrange to ſome and is of great Conſequence: *Baptiſta Montanus* reports, *Conſ.* 263. in theſe words; *I ſaw* (ſaith he) *in Venice a certain Predicant Frier that was cured of an Aſcites and Tympanites: there were with me many famous Phyſitians*; namely, Papienſis, Eugubinus, Trincavella, *and others: He had* (as I ſaid) *an Aſcites with a Tympany, and a Conſumption with a Hectick Feaver*; *therefore we were bound both to dry and moiſten: therefore we were in a great contention*; *I was willing that he ſhould drink much, but things that Open, becauſe he had many ob-*

ſtructions,

structions, and that moisten because he had a Consumption: I prescribed the Syrup of Vinegar with all things that provoke Urine: Eugubinus *would not allow him to drink, and told a story of one who was cured by dry things:* Papiensis *to end the controversie, said, That he should neither drink much, nor at all; we argued till night: the Noblemen brought their Physitians to their Boats, and there* Papiensis *said to a Nobleman, what he had concealed formerly, If you would have this man cured, there is nothing to be done but what* Baptista Montanus *saith.*

In this case also Medicines of Steel, Tartar, and Vitriol are excellent, because they strongly Open and provoke Urine without any great heat.

But the tart, Vitriol Mineral Waters are best, because they powerfully open the Bowels, provoke Urine, and correct the Distemper of the Bowels, whence experience sheweth us that many Dropsies are every yeer cured at the Spaw.

Avicen reports in the Chapter of the Cure of Ascites, of a Woman *which had a great Dropsie and eat an incredible number of Pomegranats, whereby she was cured.*

And *Varignana* reports out of *Platearius*, That an Old Woman boyled the Juyce of Plantane to the Consumption of half, and gave it to one that had a Dropsie from a Hot Cause every day, and so Cured him.

By these Examples it is plain, That somtimes a Dropsie is Cured with Cold things; and to these we may ad the testimony of *Christopher a Vega*, lib. 3. art. med. sect. 8. cap. 12. who saith there, *We saw one that had a Tympany from the Hot Distemper of the Liver whom we cured with cold things, laying upon the Liver the Juyce of Endive and Succory with a little Vinegar, and giving Endive and Succory to be eaten.*

The End of the Eleventh Book.

THE

THE TWELFTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diſeaſes of the Spleen.

The PREFACE.

ALthough the Spleen may be afflicted with all kinds of Diſeaſes, both Similary, Organick, and Common: yet we will only ſpeak of thoſe which are moſt ordinary in practice; and we will contain them in ſix Chapters. The firſt ſhall be of the Inflamation of the Spleen. The ſecond of the Pain. The third of the Obſtruction and Tumor, or puffing up of the Spleen. The fourth of the Scirrhus, or hard Tumor. The fifth of Hypochondriack Melancholly. The ſixth of the Scurvy.

Chap. 1. *Of the Inflamation of the Spleen.*

THe Inflamation of the Spleen is of the ſame Nature with that of the Liver: only it differs in this; That it ſeldom comes from pure, but from Melancholick Blood. It hath the ſame Cauſes, both Conjunct, and Antecedent: but the Diagnoſis, or knowledg by ſigns, is different.

The ſigns of the Spleen inflamed, are ſwelling and pain in the left ſide under the Ribs, which ſometimes reacheth to the Midriff, and the left Shoulder; alſo heavineſs, and beating in the ſame ſide, a conſtant Feaver, loathing of Meat, Thirſt, blackneſs of the Tongue, troubleſom lying on the right ſide, by reaſon of the heavineſs of the part lying upon the Stomach then; ſometimes troubleſom lying upon the left, if the Tumor be great, for then it is preſſed both by the Stomach, and the Liver; ſometimes the Tumor is in the ſhape of the Spleen, ſometimes it fills the whol left Hypochondrion, ſometimes it appears below the Navel, when the matter is encreaſed, and when the Inflamation reacheth to the parts adjacent, and eſpecially to the Navel.

Theſe ſigns are greater or leſſer, according to the divers mixtures of Humors. For if Choller be mixed with Melancholick Blood, the Urine is more red, the Mouth bitter, the Thirſt greater, the Feaver ſtronger and worſe every third day; great watchings, and ſometimes doting: if it be mixed with

with Flegm, the Color is pale, the Feaver and Thirst is less, and the pain less: But if the Blood be only Melancholick, the hardness is greater, the color is black, and sometimes the Urine, and there is other signs of Melancholly predominating.

The Prognostick is almost the same with that of the Liver inflamed, but less dangerous, because the Liver is the nobler Part. If it kill not the party, either it ends in a Crisis, or it is dissolved or suppurated, or grows hard and turns into a Scirrhus. A good Crisis is when the left Nostril bleeds, or when there is a purging by Stool or Urine.

The Cure of this Disease, is the same with that of the Liver: only observe these Differences.

First, You must open the left Arm in this, and not so often as in the Inflamation of the Liver, because the Liver being the Fountain of blood, wants greater Evacuation. That which is reported of the Salvatella Vein to discharge the Spleen so properly, is but a conceit, and is now out of use: you may better take blood out of the Liver Vein, called Bastica.

Secondly, You must apply those Topicks, or outward Medicines now to the left side.

Thirdly, You must not take such care in the use of binding Medicines outwardly, because the Spleen is not so noble a part, and needs less strengthening.

Other things are to be taken out of the Cure of the Inflamation of the Liver.

Chap. 2. *Of the Pain of the Spleen.*

SOmtimes the Spleen is pained without Feaver or hardness; and this comes from wind which doth not only stretch the substance of the Spleen, which is almost insensible, but the Membranes that covereth it.

It is easily distinguished from the Inflamation by the Feaver, and hardness being absent, but hardly from the Chollick, because the Colon is just under and over the Spleen: yet the pain of the Spleen is weighty, and in one place; but the pain of the Colon is stretching, sharp, and movable, and runs about the whol Belly.

The Cure of this Disease, is with Clysters that are Carminative, or that expel wind with convenient purging, and with Emollient and Discussing Fomentations mixed with Vinegar: As also with Liniments made of Oyl of Lillies, Chamomel, Capars, and Wormwood, with a little Spike and Vinegar.

If the pain remain after the use of these, apply a Cupping-glass to the left Hypochondrion, if there be no suspition of the Inflamation or Defluxion.

Chap. 3. *Of Obstruction, Tumor, or Puffing up of the Spleen.*

THe Spleen is no less subject to Obstructions than the Liver, but more, because it receiveth thicker and fouler blood, which is more easily contained in its Veins, or insensible Passages, by reason of the softness and looseness of the part, which is more fit to receive thick Humors. And when thick Humors stick in the substance of the Spleen, it makes a Tumor, and an Inflamation in the part. And if the Humor by long continuance grow thick and hard, it breeds a Scirrhus; but as long as it is moist with Flegm, it is like an Oedema or flegmatick Tumor, which is most usual with them who live in Marshy moist places, or who live upon cold Diet. But if this Tumor be soft and loose, it is called simply an Inflamation, or puffing up, the cause whereof, is partly flegm, and partly wind. They are commonly called Splenitick people who are thus afflicted.

The Causes of the Obstruction of the Spleen, are the same with them of the Liver, and this or that part is, as it is more or less disposed to receive them: Somtimes both Liver and Spleen are affected together; for a gross Humor can hardly be in one part, but some of it must be carried to the other.

The Obstruction of the Spleen is distinguished from the Obstruction of the Liver, from the Situation of the part; for there is a heaviness in the left Hypochondrion, and somtimes pain, especially after running or great walking or riding: and when you handle the Hypochondrion, there is a stretching and resistance; Besides, the Face is blewish, and there are other Signs of Melancholly.

This

This Diſeaſe is ſtubborn and of long continuance, by reaſon of the ſoftneſs and looſneſs of the part, which cannot therefore eaſily diſcharge the humor; and if it laſt long and be not Cured ſpeedily, it turns into a Scirrhus.

The Cure is the ſame with that of the Obſtruction of the Liver, by adding ſome things which do more properly reſpect the Spleen, and are fitter to prepare and purge Melancholly.

The Pills of Ammoniacum which follow, are to be added as moſt excellent, and to be uſed often,

Take of *the beſt Ammoniacum diſſolved in Vinegar of Squills one ounce: the extract of Aloes half an ounce: Cryſtal of Tartar one dram: Myrrh and Saffron, of each half a dram: Maſtich, Benjamine, Salt of Aſh, and Wormwood, of each one ſcruple: with Oxymel of Squills make a maſs of Pills. The Doſe is half a dram twice in a Week, with Purging between.*

In Apozemes and other Opening Drinks, Oxymel ſimple, and of Squills, or Sea Onyons may be very wel diſſolved, to cut and diſſolve powerfully the groſs and earthy humors.

Of all other Medicines thoſe which are made of Steel are the beſt to open the Obſtructions of the Spleen.

Alſo you may give Steeled or Ironed Waters for ordinary Drink, which are known to leſſen the Spleen (as *Celſus* ſaith) by this, becauſe Beaſts that are brought up at Smiths houſes have little Spleens.

To the Fomentation put Vinegar inſtead of white Wine, which wil make them peirce better, which is requiſite in a groſs humor.

Moreover *Galen* Commends Vinegar exceedingly in the Diſeaſes of the Spleen, uſed both inwardly and outwardly.

Put Hemlock to the Cataplaſms; as being moſt Powerful to Soften, and Diſcuſs Humors.

There is an Excellent Cataplaſm made of Green Tobacco; boyled in Oyl, and White Wine.

Of which alſo boyled to the Conſumption of the Wine, you may make a Rare Liniment.

Amatus Luſitanus, curat. 6. cent. 5. mentioneth a Cure of an Obſtruction of the Spleen remaining after a Quartan Ague, That it was taken away with a Decoction of China uſed twenty dayes after convenient Purging.

Chap. 4. *Of the Scirrhus, or Hard Swelling of the Spleen.*

THe matter of the Spleen cauſing obſtruction by continuance grows thicker, and makes a Scirrhus: And ſince the Scirrhus of the Liver and Spleen are both of one Nature, whatſoever we have ſaid of the Scirrhus of the Liver, may be here alſo uſeful.

The Knowledg alſo of the Scirrhus of the Spleen is the ſame with that of the Liver, but only the hardneſs is on the contrary ſide.

It is Diſtinguiſhed from a Windy Tumor; becauſe there is more Heavineſs in a Schirrhus, than in a Windy Tumor, which yeilderh to the Finger, and maketh a Noiſe; al which are not in a Scirrhus.

If it come only of Melancholly, there wil be evident ſigns thereof; but if it be mixed with Flegm, there is apparent in the whol body a Phlegmatick evil habit.

The Prognoſtick alſo is the ſame with that of the Liver; only this of the Spleen is more eaſily Cured; becauſe the leſs Noble the part is, the ſtronger Medicines may be Applied without Danger.

And Laſtly, The Cure is the ſame with that mentioned in the Scirrhus of the Liver.

And becauſe it is to be done by degrees, from mild to ſtronger Medicines: firſt you muſt uſe thoſe Remedies which we ſaid were good for the Obſtructions of the Liver and Spleen: and among the Chalybeat Medicines there commended, the Principle is the Pills of Steel, made with Amoniacum, and other things mentioned in the Obſtruction of the Liver.

Pills of Aloes, Ammoniacum, and Mercurius dulcis, are the beſt among the Medicines for the Scirrhus of the Liver.

But this following Opiate is the Medicine wil Cure, if it be not incurable:

Take of *Gum Ammoniack, Opopanax, and Bdelium, of each two drams: diſſolve them in white Wine: ſtrain and boyl them, then ad of confect io Hamech, and Diaphœnicon, of each two*

drams: double Catholicon half an ounce: Pilulæ fœtidæ two drams: make an Opiate, of which let him take half an ounce with twenty grains of Mercurius dulcis for many daies together, and so the Tumor and hardneß will vaniſh.

And beſides what was ſaid concerning the Liver, you muſt obſerve theſe following Precepts in in this Diſeaſe.

Firſt, Becauſe Blood-letting is much queſtioned, we reſolve that it may be good in the beginning. But it is good for nothing when the Diſeaſe is old.

Secondly, The dead or blind Nettle called *Galiopſis*, or *Pliny*'s Arch-angel, is commended by *Solenander* and *Fonſeca*, for a ſpecial Remedy; the Italians call it the Spleen Herb: this is given boyled in Wine, the quantity of an ounce, or one dram in Pouder, with Wine or other convenient Liquor or Decoction, with moſt admirable ſucceſs.

Thirdly, Beſides the Fomentations there mentioned, *Aquapendens* in his Chyrurgery, commends the fomentation of the Belly, with a Spunge dipped in Time Water, and ſqueezed; and with that he ſaith he hath cured the Scirrhus of the Spleen and Dropſie.

Fourthly, Beſides the Oyntments afore mentioned, *Amatus Luſitanus* commends this following as admirable, by which he ſaith he cured a Scirrhus of the Spleen; and he ſaith that he had it from the Phyſitians of *Ferraria*.

Take of *Common Oyl three pints: the Marrow of an Ox bone one pound: freſh Butter half a pound: the Juyces of Briony and Sowbread, of each one pint: boyl them gently till the Juyces are almoſt conſumed. Add to the ſtraining, yellow Wax eight ounces: the Pouder of Ceterach or Spleenwort, Capar barks, Tamariſk, and Agnus Caſtus ſeeds, of each three drams. Mix them into an Oyntment.*

Thus it is deſcribed by *Amatus*; but there is too much for one Patient, therefore you may leſſen it thus:

Take of *Common Oyl three ounces: Ox Marrow one ounce: freſh Butter half an ounce: the juyce of the Root of Briony and wild Cucumers, of each one ounce and an half: boyl them as afore, and add one ounce of Wax, and of the pouder of Ceterach: Capar and Tamariſk Barks, and Agnus Caſtus ſeeds, of each two drams.*

Fifthly, The Cataplaſms following are excellent:

Take of *the Roots of wild Cucumers one pound: Mallows and Violets, of each three handfuls: boyl them till they are ſoft, beat them and ſtrain them: then add of the Oyl of Capars and Tamariſk, Vinegar of Squills a little: make a Cataplaſm.*

Take of *ſowr Leaven two pound: Boyl it in equal parts of Oyl and Wine to a Pultiß.*

Beſides the Plaiſters mentioned in the Scirrhus of the Liver, theſe are very good:

Take of *Gum Ammoniack four ounces: Diſſolve them in ſtrong Vinegar: then ſtrain them, and boyl them till the Vinegar be conſumed: then with a little Wax make a Plaiſter.*

Take of *Hemlock four handfuls: Ammoniacum half a pound: Infuſe them in Vinegar eight daies: then boyl them til the Ammoniacum be diſſolved: then ſtrain them through a linnen cloth, and boyl the Liquor again a little while, and with Wax and Oyl of Almonds, make a Plaiſter.*

Take of *the Juyce of Mallows, Creſſonis, the Stalks and Roots of Fern, of each two ounces: Gum Ammoniack four ounces: With a little Vinegar, firſt diſſolve them with a gentle fire, then boyl them, and ſtrain them: then boyl them again to the conſiſtence of a Syrup, and with one ounce of Oyl of Capars, and a little Wax, make a Sparadrap for the Spleen, to be renewed every third day.*

Aquapendens in the place cited, ſaith, that he cured many with this Plaiſter, which is made of two parts of Ammoniacum diſſolved in Vinegar, and one of the Juyce of Tobacco; one of the Rozin of the Pine-tree, Turpentine, and Juyce of Danewort; one of Oyl of Capars, and a little new Wax in the Form of a Cerat.

Chap. 5. *Of Hypochondriack Melancholly.*

Although all the parts beneath the Ribs, called Hypochondria, are affected in this Diſeaſe, yet its thought the Spleen is moſt, becauſe it receives the Melancholly, and therefore it is fitly placed among the Diſeaſes of the Spleen.

This Diſeaſe comes of Preternatural Melancholly, and other aduſt Humors, eſpecially Blood, or Choller, or Natural Melancholly.

This

This Melancholliek Humor is not pure by its ſelf, but commonly mixed with others, as Choller, Flegm, and Water, from whence come the diverſity of Symptomes, which hereafter ſhal be mentioned. Theſe Humors breed in the Spleen, eſpecially when it is diſtempered with heat, and alſo in the Liver: hence it is that they draw meat and drink to themſelves, which is not concocted, that which is thin of the Chyle ſooner than that which is thick: and then the thicker part for want of ſomthing to carry it, ſtaies in the Meſeraick Veins, and the longer it ſtaies, the thicker it grows, and ſomtimes is burnt: and afterwards coming to thoſe parts, it is not well concocted. Moreover, thoſe parts in their Natural ſtate ſhould concoct by boyling, now do it by roaſting; hence comes this great aduſtion of Humors.

It may alſo be, that this Diſeaſe may be bred without the diſtemper of theſe parts, from evil Nouriſhment that breed Melancholly blood; and alſo from good blood retained too long in the veſſels, and being too much, as in the ſtoppage of the Terms and Hemorrhoids, which continuing long in the Veſſels, is burnt, and turned into Melancholly.

It may alſo come from the Stomach not well concocting, but turning it into a parched Crudity, from which thoſe evil Juyces are bred in the Liver, and the Spleen. And *Galen*, 3. de loc. affect. cap. 7. following *Diocles*, thought the proper ſeat of it was in the Stomach, becauſe in this Diſeaſe there are commonly ſigns of an ill Stomach: But it is more probable that the Stomach ſhould be afflicted ſecondarily from the Liver or the Spleen, as we will cleerly ſhew hereafter.

Theſe evil Humors are gathered into the Veins and Arteries, which are in the bottom of the Stomach, eſpecially in the great branches of the Gate Vein, the Spleen Veins, and thoſe of the Meſentery, Caul, and Belly, in which they have often great and grievous ſerventations or workings; from whence ſtinking Vapors are ſent to the Brain, Heart, and Midriff, which cauſe thoſe divers Symptomes in thoſe parts, which we ſhall after mention.

Alſo the Humors are contained in the Bowels, eſpecially in the Spleen and Sweet-bread, and the Glandles of the Meſentery, the ſubſtance of which parts is ſoft, and like a Spunge, and therefore is more ready to receive them, and harder to caſt them forth. Beſides, the Glandles which are diſperſed through the Meſentery, to be a prop to Veins and Arteries, and to hinder leaſt they ſhould be preſſed by the Guts being full, or by any other thing: If theſe ſwell much, they do preſs upon the Veſſels, and hinder the paſſage of the Humors, whence come Obſtructions in thoſe paſſages.

Boyes and yong men are little ſubject to this Diſeaſe, by reaſon of their moiſt temper unfit to breed Melancholly: but men often, becauſe the Humors are burnt by heat in youth; and when that heat decaies, and the thin parts are exhaled, there is a great encreaſe of Melancholly.

The Antecedent and principal Cauſes of this Diſeaſe, are firſt Meats of evil Juyce, and hard of Concoction, which are fit to breed Melancholly; as brown Bread, or unleavened, or cruſty, Pulſe, Cheeſe, hard Eggs, and fried Meats, Water Fowl, Beef, Veniſon, Hairs, and all Salt and ſmoaked Meats, and many other things of hard ſubſtance.

Secondly, Great Paſſions of long continuance, eſpecially Sadneſs, are very powerful to breed this Diſeaſe becauſe they diſperſe the Spirits, by which means the Concoction is weakened, and ſo there is great Crudity, which being burnt by the hot Bowels turn into Melancholly.

Thirdly, Idleneſs, by which the Excrements are retained, eſpecially if there be much ſtudy and watching; hence it is that learned men, and ſuch as ſit much are very ſubject to this Diſeaſe.

Laſtly, The ſtoppage of the Terms and Hemorrhoids, both in reſpect of their quality and quantity produce it: For when Melancholliek, Salt and burnt Humors, uſed to be diſcharged by thoſe waies, if they are ſtopped they return to the Hypochondria and cauſe this Diſeaſe.

The Knowledg of this is taken from the Symptomes which follow, and they are many, becauſe almoſt all parts of the Body ſuffer thereby when it is high: We ſhall reckon them up, admoniſhing firſt, That all do not happen to all Patients, but ſome to one, ſome to another, according to the diverſity of the Humor, and the part affected.

Firſt therefore, the Stomach commonly ſuffers, not principally, as *Galen* from *Diocles* ſuppoſed; but ſecondarily: When Blood coming from the Branches of the Gate Vein, to nouriſh the Stomach is not good; from whence the Stomach being ill nouriſhed, doth ill concoct, and turns its Meat into corruption. Hence comes a circular Evil, when the Liver and Spleen ſend evil Blood to the Stomach, and the Stomach breeds evil Chyle to return to them, of which they make bad blood.

Therefore in this Diſeaſe the Stomach commonly concocteth ill, and turns the chief part ſomtimes into Water, ſomtimes into ſharp, ſowr, and clammy ſubſtance; which being not drawn by the Guts and Meſeraick Veins, becauſe unfit for nouriſhment, ſtaies in the Stomach; and coming upwards ſomtimes fills the Tongue with Spittle, ſo that the Patients ſpit much, and ſomtimes vomit.

Somtimes the Matter in the Stomach boyleth, and fermenteth; from whence comes wind, which doth not only ſtretch the Stomach, but the parts adjacent, and make the Heart ſo ſick that ſomtimes

the Patient swooneth. Somtimes the Wind is sent out upwards and downwards, and by insensible transpiration, or the Matter causing them is vomited forth.

Yet you must observe that al that is vomited out is not bred in the Stomach, but is sent from the Spleen and other parts to it: for somtimes the humors vomited are so sharp that they set the teeth on edg, and these are sent by the short vessel from the Spleen to the Stomach.

In some there is blood so sent, with Melancholly and other evil Humors, which is cast forth partly upward, and partly downward; as we shewed at large in the Vomiting of Blood.

In this Disease there is often belching and noise beneath the ribs, by reason of the abundance of Wind made of those Crude Humors: hence it was wont to be called the windy Disease. Now, how Wind is bred of Melancholly, we shewed in the Tympany.

Somtimes pains arise in the Stomach and Hypochondria, of the same Wind, which reach to the Back and Loyns, so that you would think it the Stone of the Kidneyes, especially if the Urine be thick and red, as usually it is.

The Belly is often bound, because the Meat is turned into clammy Matter, which sticks to the Guts, which the expulsive Faculty cannot cast out without help of Medicines, and therefore the Patients are constrained to take Purges and Clysters often.

Somtimes there is a Flux of the Belly, if the Humors grow sharp, and have in them much Choller or burnt Melancholly.

There is a heat in the Hypochondria, and a certain Inflamation inward, somtimes in one side, somtimes in another, from hot Humors contained therein, especially when they are moved by inward or outward means; so that the Face will grow hot and red from those vapors; and somtimes there is an Ephemeral, or Feaver, for a day, by those vapors sent through the whol Body.

The Urine is somtimes thick, somtimes thin. Thin, when thick Humors stop the passages through which it is as it were strained, thick, red, and troubled, by reason of the mixture of the thick Matter, which is very salt, and therefore is called (*Materia Tartaria*) and it lies at the bottom of the Urinal like a thick Sediment. Or some part of it sticks like red Sand to the sides, which makes many fear the Stone without cause, because this same is not bred in the Reins, but in the Liver, from a burnt and salt Humor, and you may know this, because it dissolves between the Fingers like Salt, which will not when it comes from the Reins.

Somtimes there is a Palpitation, or beating of the Heart, by reason of the vapors ascending, which while it labors to expel, make it move violently; and then the Patient thinks himself in great danger.

Somtimes there is a beating in the left Hypochondrion, when hot Humors are there; from whence vapors arise, and make the Pulse or Systole and Diastole of the Arteries greater; so that both the Patient and the standers by may feel it, which is chiefly after heat with Anger, motion, or drinking of much Wine. This beating is chiefly in the Cœliack Artery, which is the chiefest in that part. In an old Disease, it is somtimes constant; and this signifies an Habitual and incurable Disease. An Aneurism somtimes followeth this great breathing, from the enlarging of the Cœliack, or some other Artery, and from the hot blood in them, which being very thin and full of many hot Spirits, continually dilateth and stretcheth the Arteries while there is an Aneurism, such as *Fallopius* observed, *Lib. de tum. preter naturam, cap.* 14. in an old woman, who being opened had an Aneurism in her Belly, into which he put his fist. From which, mark by the way, the great providence of Nature, which fearing the breaking of an Artery through too much enlarging, hath made the coat of it as hard as a bone, as *Fallopius* observed in the same place. Also *Paræus* in his sixth Book, Cap. 28. tels the like story of an Aneurism, found not in the Belly, but the Breast, in the Venal Artery, which was so stretched that it could contain his fist; and also the inward Tunicle thereof was like a bone. And we have seen the like about two yeers agone, namely, an Aneurism in the Breast by the dilatation of an Artery, which would hold the fist of a Boy of fifteen yeers old; and the Tunicle thereof was grown like a Gristle.

The evil vapors that ascend from the Hypochondria, produce many Symptomes: for being sent to the Pallat and Tongue, they dry those parts, and cause a thirst: when they go to the Lungs and Midriff, they cause shortness of breathing; when to the Membranes of the Brain, Head-ach; when to the Brain, noise in the Ears, dimness of Sight, Giddiness, Fear, and Sorrow, and divers Melancholly Phansies. And if they be malignant, and very sharp, they cause an Epilepsie, or Falling-sickness: if they come to the Nerves, Convulsions: and if they be stupifying they cause a Numbness, and bastard Palsey, Coma, and Apoplexy, if they get into the Brain. But if these vapors be hot and dry, they dry the Brain, and cause watchings, troublesom sleep, and frightful Dreams: and at first, though they sleep well after Supper til midnight, afterward they wake, some three or four hours, and some sleep again about three or four a clock, others not at all. The reason whereof is this: Because while the Chyle is carried to the parts that serve for the second Concoction, then the evil Humors lying in the Vessels, are stirred, and send up vapors, which being sent by the Veins and Arteries to the Head,

cause

cauſe watching, and if they be quickly diſcuſſed, they ſleep again; but if they continue long, they watch the other part of the night.

We have formerly ſpoken of all theſe Symptomes, and we ſay again, That all are not in all men, but more or fewer, according to the variety of the Humors, and parts affected.

This alſo is to be marked; It is not Eſſential to Hypochondriack Melancholly, that ſtretching, hardneſs, pain. and ſwelling, ſhould be in the Hypochondria, becauſe the cauſe is for the moſt part in the Branches of the Gate Vein, and Arteries adjoyning, and ſends from thence vapors to the Heart and Brain. Oftentimes there is ſtretching in the Liver and Spleen, which ſignifieth, That the Humors ſtick in thoſe parts: but if there be no ſtretchings, it is a ſign that the evil Humors lie in the Veins of the Meſentery, Caul, Sweetbread, and Stomach. Theſe proper Symptomes ſhew that the Stomach is affected with ſowr belchings, and ſtinking, or loathing, vomiting, want of concoction, and ſomtimes flux of the belly.

As for the Prognoſtick: This Diſeaſe is not deadly for the moſt part, but of long continuance, many times the whol life, therefore it is commonly called the diſgrace of Phyſitians, becauſe they do ſeldom cure it; and if the Patient ſeem to be cured, it returns again in a few months: it is alſo called the Scourge of Phyſicians, becauſe they who have it are continually asking new Medicines, and preſently ſatisfied therewith, and dayly complain to the Phyſitian for others.

The Flux of the Hemorrhoids doth good in this Diſeaſe, if it be moderate; but if it continue long it is dangerous.

A thick Urine is better in this Diſeaſe, than a thin and watery, which ſhews that the thick Humors are detained in the Body. Black Urine without a Feaver, doth often Cure this Diſeaſe.

Its good in this Diſeaſe to have a looſe Belly, and bad to be bound. Alſo Vomiting, if the Patient be refreſhed thereby, is profitable; but if it continue long, it is dangerous.

A Giddineſs, and continual pain in the Head in this Diſeaſe, ends in an Epilepſie, Blindneſs, or Apoplexy.

The Cure of this Diſeaſe, is in three things chiefly: firſt in opening Obſtructions: ſecondly in amending the diſtempers of the Bowels: and in diſcharging of the peccant humor, not omitting ſtrengtheners: For which a wiſe Phyſitian may uſe theſe following.

Firſt give a Clyſter, then this Potion:

Take of *Senna half an ounce*: *Annis ſeeds, and Cream of Tartar, of each one dram*: *Borrage flowers, Fumitory, and Sorrel, of each half a handful*: *Liquoris three drams*: *boyl them to three ounces. Diſſolve in the ſtraining, Rhubarb infuſed in Lavender Water one dram and an half*: *double Catholicon three drams*: *Compound Syrup of Succory one ounce. Make a Potion; to which you may well add in a ſtrong Melancholly, one dram of Confectio Alkermes.*

The day following, let Blood from the left ſide chiefly, or as the Liver or Spleen are moſt affected.

Then give theſe Broths:

Take of *Sparagus, Dog-tooth, and Succory Roots, of each half an ounce*: *Agrimony, Ceterach, Maiden-hair, Bugloſs, and Succory, of each half a handful*: *Cream of Tartar one dram*: *boyl them with a Chicken, and make Broth ten or twelve daies, adding four drops of Spirit of Vitriol to cool and open more.*

In old Obſtructions, you may add to the former, China Roots, Saſſaphras, white Sanders, Smallage Roots, and male Fern Roots, Bettony, Scabious, Coriander prepared, Raiſons, and the like.

If the Belly be bound, or the Body very foul, give in every third draught of Broth, half an ounce of Senna, with Annis ſeeds.

Or this Apozeme inſtead of the Broth:

Take of *Bugloſs, Sparagus, Succory, and Sorrel Roots, of each one ounce*: *the middle rind of Tamariſk and Aſh, of each half an ounce*: *Agrimony, Ceterach, Maiden-hair, Dodder, Succory, Fumitory, Hops, Bugloſs, and Borrage, of each one handful*: *the four cold ſeeds, Annis and Fennel ſeeds, of each two drams*: *Currance one ounce*: *Senna and Polipody of the Oak, of each two ounces*: *Dodder of Time one ounce*: *the beſt Agarick and Rhubarb infuſed by themſelves in Cinnamon Water, of each two drams*: *Mace and Cloves, of each one dram*: *the three Cordial Flowers, of each one pugil*: *Boyl them to a pint, and diſſolve in the ſtraining, Syrup of Succory with Rhubarb, and of Roſes ſolutive, of each two ounces. Make an Apozeme clarified and aromatized with two drams of yellow Sanders, for four morning draughts.*

Or give Cock Broth thus made:

Take of *Roots of Aſparagus, Bruſcus, and the bark of Capar Roots and Tamariſk, of each half an ounce*: *Agrimony, Ceterach, and Maiden-hair, of each one handful*: *Annis, Citron, and Cardius ſeeds, of each one dram*: *Senna half an ounce*: *Polipody of the Oak, and Epithimum,*

or

or Dodder of Time, of each three drams: Cinnamon one scruple: Crystal of Tartar one dram. Boyl them all with half a Cock, which let him take four mornings.

After you have sufficiently purged, a Bath of warm Water is most convenient, used many daies, in which cool Herbs have been boyled, and sweet Apples. Somtimes it is made of Barley and Almonds beaten, and put into a Bagg and boyled in Water. It must be often repeated, if the season will permit; for *Galen*, 8. *de loc. aff. cap.* 6. saith that he cured many melancholick men, only with the use of hot baths, without any other Medicine. And if the Patient cannot endure a whol bath, let him have one for half the body.

And least often washing should hurt the Stomach, when he enters into the Bath, let it be anointed with Oyl of Nutmegs by Expression, or the like.

When he goes forth of the bath, let the Region of his Liver be anointed with the Cerat of Sanders, or Oyntment of Roses washed in Oxycrate.

After his last bath, let the Hemorrhoids be provoked with sharp Suppositories, or with rubbing the Anus with Fig Leaves, or with a rough linnen Cloth; and with two or three Horse-leeches applied to the most apparant places, take away five or six ounces of blood. And this must be done every Spring and Fall, and somtimes once a Month.

They who are used to have the Flux of the Hemorrhoids, if it hath been long stopped, so that they wil not appear, must have a Cupping Glass applied.

If after the Leeches are fallen off, they bleed still, as somtimes they wil, stop them with Clay, or Pouder of Coal, or with Spiders Webs, or with Pouder of Lime, or with astringent Pouders taken up with the white of an Egg and Pledgets.

And if you cannot conveniently open them, it is good to draw blood from the inferior Veins, that the most impure may be voided.

An Issue burnt in the left Legg doth purge the Spleen and other Bowels from superfluous Humors, and therefore forget it not.

But because this Disease useth to be very stubborn, and after Purging, new Humors return, you must purge by fits, that the Body may be freed from them by degrees: which may be wel done by a Magistral Syrup, made thus:

Take of *new drawn purified Juyces, of the Flowers of Borrage, Bugloß, Endive, Succory, Fumitory, and Sorrel three pints: the Juyce of sweet Apples newly drawn and clensed two pints: fresh Polipody of the Oak half a pound: clean Senna eight ounces: Dodder of Time three ounces: Agarick newly made into Troches one ounce: Ginger and Cloves, of each one dram. Infuse them and strain them according to art, till there remain five pints and a quarter of the Liquor; in which dissolve the straining of an ounce of Rhubarb dissolved in the said Juyces by themselves with a little Cinnamon, and one pound of Sugar. Make of these a well boyled Syrup; clarifie it, and aromatize it with two drams of the Pouder of the three Sanders, keep it in a Glaß, and let him take two ounces thereof, twice or thrice in a month, with a little Chicken Broth, boyled with Endive, Sorrel, Borrage, and Burnet.*

Or instead of the Syrup, you may give Pils, especially in Winter, such as were mentioned in the Obstruction of the Liver; or if you fear they are too hot, you may make these following:

Take of *Polypody of the Oak half an ounce: Asarabacca Roots, and Broom buds, of each one dram: Currance three drams: Crystal of Tartar one dram and an half: Bugloß and Borrage flowers, of each half a pugil: Boyl them in Spring Water. Take half a pint of the straining being well clarified, and six ounces of the Juyce of sweet Apples also well clarified; and infuse therein one ounce of clean Senna: Turbith and Agarick, of each three drams: Mace, Cloves, Cinnamon, and Dodder of Time, of each one dram: digest them four daies in Balneo Mariæ: then strain them, and add to the straining, one ounce of the Extract of Aloes made in Endive and Sorrel Water; Myrrh dissolved in Wine and strained, two drams: Salt of Tartar one dram. Evaporate them all, and inspissate and thicken them at a gentle fire, adding towards the end when the matter is almost evaporated, Diarrhodon Abbatis Lætificans* Galeni, *and the Troches of Dialacca, of each half a scruple: bring them into a maß for Pills; and let the Patient take half a dram once in a week, two hours before meat.*

Pereda witnesseth, that he hath cured many Melancholick men with this following Pouder; and he cals it Blessed, and Divine.

Take of *Dodder of Time half an ounce: Lapis Lazuli, and Agarick in new made Troches, of each two drams: Scammony one dram: Cloves twenty: mix them into a Pouder, and give two drams twice or thrice in a month with Whey or Borrage Water.*

If you cannot conveniently give often Purges, it is good every other day to give a Clyster to revel vapors, and draw forth some part of the Humor: for if they go deep into the Guts, they take away the greatest part of the filth from the Meseraicks. We knew a Noble Man, who being long troubled with this Disease, was cured by often Clysters, when other Medicines did nothing.

While

While you give intermitting Purges, let the Body at other times be moistened with Baths, or half Baths, or Fomentations, by which both the violence of the Humor is restrained, and the Body made moister.

Also at those times, you must use strengtheners, which will also open Obstructions, and they use to be made often like Opiates, or a hard Electuary, or Lozenges, thus:

Take of *Conserve of Bugloss Roots half an ounce: Conserve of Borrage Flowers, and Violets, of each one ounce: Conserve of Roses, and candied Citron peels, of each half an ounce: one candied Myrobalan: Confection Alkermes three drams: Powder of Ivory, Harts-horn, and Bezoar stone, of each one dram: Lætificans Galeni, and Diarrhodon Abbatis, of each two scruples: Coral and Pearl prepared, of each half a dram: Amber-greece half a scruple: the best Musk five grains: Gold three Leaves: with Syrup of Apples, and of candied Citrons, make an Opiate, of which give the quantity of a Chesnut two hours before meat, every day drinking after it a little white Wine.*

A plainer and better tasted Opiate, is made of one part of Confection Alkermes, and four parts of Conserve of Borrage Flowers. And to open more powerfully, if you fear no hurt by hot things, add Conserve of Tamarisk flowers, Elicampane Roots, Wormwood, Maiden-hair, and the Salts of Wormwood and Tamarisk, &c.

You may make Lozenges thus:

Take of *Diambra, Diamoschi dulce, and Lætificans Galeni, of each one scruple: Confectio Alkermes three drams: Sugar dissolved in Borrage and Rose Water, four ounces: make Lozenges of two drams in weight, gilded. Let him take one every day two hours before meat.*

Or you may make them more pleasant thus:

Take of *Confectio Alkermes two drams: Amber-greece one scruple: Sugar dissolved in Rose Water four ounces. Make Lozenges.*

Amber-greece alone, given five or six grains at a time every day with Wine or Rose Water, doth cheer the Spirits and the Natural Heat, and much rejoyce the Heart.

Some Authors do much commend the use of Bezoar stone against all Melancholick Diseases, because it doth much strengthen the Heart, and you may give five or six grains in Rose Water, or other Liquor.

After the Body is well purged, if it be Spring or Summer, you may give Whey for fifteen or twenty daies, which will open the Obstructions of the Bowels, and amend the hot distemper. Make it by boyling and clarifying it, and putting into it every night two drams, or half an ounce of Epithimum.

You must proportion the quantity according to the strength of the Stomach. For if it can easily pass through the Veins, being somwhat open, and be sent forth by stool and urine, it is good to give it in great quantities, as Mineral Waters prescribed in the hot distemper of the Liver, with this Caution, That you strengthen the Stomach with Baggs, and other things hereafter mentioned, and give every day at evening a Cordial strengthening Opiate. Instead of Epithimum, you may mix with the Whey, the juyce of Succory, Borrage, or of any other proper cool Herb, thus:

Take of *Goat Whey four or five pints: the juyce of fresh Lemmons four ounces: the new juyce of sweet Apples six ounces: Conserve of Roses or Violets, or white Sugar, one ounce. Clarifie these with whites of Eggs. Let him take every morning three or four more Cups thereof, if his Stomach will bear it.*

In Bodies that are very lean, after the Obstructions are a little opened, you may give Asses Milk with Sugar of Roses; and if there be rumbling in the Hypochondria, a little Aromaticum Rosatum, or Diarrhodon Abbatis wil do very wel.

But your sharp and Vitriol Mineral Waters, are beyond all Medicines, which by correcting the distemper of the bowels, do powerfully open Obstructions, especially the warmest, which do make the Humor thin, and clense it.

There is great dispute among Authors concerning drinking those Waters. Some (with *Sennertus*) do allow it, because they receive Vertue from their Minerals, and do thereby both clense the passages, and send forth the filthy Humors which stick to them by stool and Urine: they warm the Stomach, and strengthen the Liver and Spleen: And we may rather fear that these Waters wil hurt by the use of them external than internal, by heating and drying. Others (with *Claudinus*) do altogether deny them, by reason of their drying quality. Others (with *Montanus*) do neither altogether reject them, nor wholly approve of them; they say they are good, by reason of the coldnes of the Stomach, which is alwaies in this Disease, and by reason of Obstructions. But in regard the Liver and Spleen are hot, they wil have them defended with the cool Oyntment of *Galen*. And also the Loyns, for then (saith he) the water will not hurt, because it staies longer in the Stomach, and cold places, but only passeth through other parts. We suppose that the use of them is convenient, if the Stomach being cold have much thick and clammy flegm in it, and if the heat of the Liver be not very

great,

great. Which part is not like to suffer, if the aforesaid Oyntment be not only given, but also cool Broths after the Waters; and after they have been used enough, cold and moistening baths for some daies.

Medicines made of Steel, use to be of great Vertue to open these Obstructions, such as are mentioned in the Obstruction of the Liver, and of the Spleen, avoiding those which do heat and dry much. In hot bodies you may give Steel prepared with Brimstone or Vinegar, with Conserve of Borrage and Succory, made in the form of an Opiate.

For dainty folk, the Syrup of Steel afore mentioned in the Obstruction of the Liver and Spleen, is excellent; or the Froth which remains in the Glass after the Evaporation of the Wine which hath been often steeled, mixed with the aforesaid Conserves.

But Salt or Vitriol of Iron goes beyond all Medicines, because it opens Obstructions, strengthens the Bowels, and qualifies their heat. The Dose is from twelve to twenty grains, with a fit Liquor, Syrup, or Conserve. But because it is displeasing to the taste, I use to make it into Pils with the Mucilage of Gum Tragacanth. You must use it long, and therefore get a great quantity, which is not easie to be got after the way that *Beguinus* and others make it. We will shew you the easie way of making it, which few men know.

Take of *the Oyl of Vitriol, or of Sulphur, half a pint: the Spirit of Wine one pint: Put them in a new Iron Pan that is clean, and cover them well; within fifteen daies of them there will be a Salt-like gathering, which you must set in the Sun to dry it throughly, sometimes stirring it with an Iron Spatula: In Winter you may dry it upon a gentle fire, or in a Hot-house. Let the Salt being well dried, be kept in a close Glass; for if it be exposed to the Air, it easily turneth moist. Also the Pills that are made thereof, of Tragacanth, must be hardened with the Pouder of Tragacanth, and after put in a Glass, otherwise they will grow moist. You may continue this Medicine for a month or two, not only without hurt, but with great profit.*

Fonseca commends these Pils following, which he cals *Diatartarum*, for opening Obstructions by degrees, and purging Melancholly gently, and for allaying it.

Take of *the Pouder of Senna, and Salt of Tartar, of each one dram: Pouder of Cinnamon half a scruple: with Syrup of Lemmons make a Mass, of which give three Pills made of half a dram one hour before Supper, to give him two or three stools, for Salt of Tartar hath great Vertue to allay black melancholick Humors; for it draweth to it self by certain propriety sowr things, as you may perceive when it is mixed with Vinegar, or Spirit of Vitriol, whose sowrness it taketh away: For we must know, that* Fonseca *by Salt of Tartar, meaneth Crystal of Tartar. Yet you may as well infuse your Senna with the Salt of Tartar, and some drops of Spirit of Vitriol in some convenient Liquor.*

To open the same Obstructions, some commend the Decoction of China, as we said in the Obstruction of the Spleen; which a wise Physitian may do with good success.

Some commend the Juyce of VVormwood thickened into the form of a Pill, given either by its self, or with Gum Ammoniacum; and after that presently, Oxymel made of the Decoction of Asarum Roots and Liquoris.

Others say, That Hypochondriack Melancholly hath been cured with the Decoction or Wine of Wormwood taken thirty or forty daies together.

The Juyce of Buglos is excellent, not to open Obstructions as Wormwood, but to qualifie the Melancholick Humor. Therefore they give two ounces thereof with two drams of Sugar, and as much Wine as of both, for ten or twelve daies every morning.

The principal thing for this Cure, is to keep the Body alwaies soluble: Therfore the Patient must have some familiar Medicines, which he may often use before meat, sometimes one, sometimes another, lest he grow weary of them. For this he may take the Magisterial Syrup, and the aforesaid Pils, and those which were prescribed for a costive Belly. To which he may add (out of *Montanus*) Venice Turpentine, which he orders to be swallowed in the quantity of an Acron, three hours before dinner, once, twice, or thrice in a week: for besides that it looseneth the belly, it also cleanseth the Stomach, opens Obstructions, provokes Urine, warms the Stomach, and doth not heat the Liver, but doth it good by opening and clensing it.

For his ordinary Drink let him use Water wherein Gold hath been quenched, or the infusion of Tamarisk, Agrimony, Burnet in thin Wine, either alone, or made Physical in Vintage time with the Roots of Buglos, Borrage, with a little white Sanders and Rosemary Flowers.

The Decoction of the Sweet Bryar Root, is commended for ordinary Drink; for it openeth and strengtheneth all natural parts.

The Decoction of *Lignum Nephriticum* doth open the Obstructions of the Bowels without any manifest alteration. But steeled Water is more usual. All which Waters and Decoctions, you may also mix with Wine.

While

While in the internal Medicines mentioned or any of them are uſed, you muſt apply External, as Fomentations, and Oyntments to the Hypochondria, ſuch as are preſcribed for the Obſtructions of the Liver and Spleen, making Choice of the Cooleſt.

You muſt alſo apply ſtrengthners to the Stomach, becauſe that part doth alwaies ſuffer in this Diſeaſe; therefore you may uſe thoſe Fomentations, Oyntments, and Emplaiſters mentioned in the Diſeaſes of the Stomach: Alſo thoſe Internal which wil not inflame the Liver; and eſpecially the Digeſtive Pouder to be taken after meat: in a Fit when the Vapors ariſing from the Hypochondria do trouble the Heart, Brain, and other parts, and produce great Symptomes, as Swoonings, Palpitations, Tremblings, Convulſions, Head-ach, and the like; you may uſe thoſe things which are given in Swooning, or the Mother; but among the reſt Laudanum uſed wiſely, doth wonders.

Chap. 6. *Of the Scurvy.*

THe Scurvy is uſual in the North, in moſt places thereof Common, but almoſt unknown in the South; ſo that al Writers that have Practiced in theſe Parts, have never mentioned it: and we may wel leave it out, becauſe in our Preface to this Book we promiſed to meddle only with the uſual Diſeaſes of the Spleen; but Experience hath taught us, That our Country is not altogether without it, for though it be not in every Symptom the ſame with that of the North, yet it hath enough to confirm it to be the ſame: for the aforeſaid Authors ſay that one Symptome is ſufficient to diſcover it; we have ſeen many Symptomes of it in many people, but becauſe it is not familiar here, and al our Phyſitians ſay we have it not, we would not abſolutely cal it a Scurvy, but we thought it better to cal it a Scorbutical Diſeaſe, ſuch an one as comes next to it, though it be not a true Scurvy.

For the Scurvy is nothing elſe but an Hypochondriack Diſeaſe, having a peculiar degree of Malignity from which more Symptomes ariſe than in the Hypochondriack Diſeaſe: this malignity comes from the putrefaction of Melancholly, not of every kind of melancholly, for it is often corrupted, from which other Diſeaſes ariſe and not the Scurvy, as a Quartan Ague, an Impoſthume in the Meſentery, and other parts; but of a peculiar and proper Melancholly which is agreeable to that Malignity. This is known by the Infection which is found in this Diſeaſe, becauſe al Authors hold it to be infectious. And becauſe al the degrees of malignity which lie in the Humors and produce divers Diſeaſes are unknown unto us and al men, therefore is this of the Scurvy obſcure and hidden; and it is wonderful that ſo many Diſeaſes ſhould ariſe from the variety of malignity which is in the Humors, as malignant Peſtilential Feavers, Smal Pox and Meaſels, Cancers and Elephantiaſis, the Pox, and many others. And eſpecially Elephantiaſis comes from a peculiar malignity in a Melancholick Humor, and ſo doth the Scurvy, and yet theſe two Diſeaſes differ ſo much, that none can tel their divers degrees of malignity.

Divers Symptomes common to both, do ſhew a great likeneſs of the Scurvy and Hypochondriack Melancholly: for al they which were mentioned in the former Chapter, are found in this Diſeaſe, as Crudities and want of Concoction in the Stomach, often ſpitting, flegmatick, ſharp, and ſtinking vomitings, noiſe in the Hypochondria, belchings, breaking of Wind downwards, vomiting of blood, and purging of blood, pains from wind under the ribs and in the ſtomach, ſomtimes Coſtiveneſs, and ſomtimes Looſeneſs, heat in the Hypochondria, beating of the Left ſide, Urine now thin, than thick, heart beating, thirſt, drought of the mouth, ſhort breath, head-ach, noiſe in the ears, dimneſs of ſight, giddineſs, ſorrow and ſadneſs, and divers dolings, convulſions, falling-ſickneſs, numbneſs, coma, watchings, troubled ſleep, and terrible dreams: The Reaſons of al which were ſhewed in the Chapter above, and they may agree with this of the Scurvy.

But if any Symptomes appear beſides theſe, which are not found in that, nor mentioned by Authors, nor belong to another Diſeaſe; you may conjecture that it is the Scurvy: The Chief are theſe, which are not al found in one Patient; but one of them is ſufficient to ſhew that the Diſeaſe is ſuch.

The Firſt moſt remarkable Sign is in the Gums, Mouth, and Teeth, in the Gums redneſs, itching, and putrefaction, and ſomtimes bleeding and ſtink, which are ſomtimes in the Palate, Jaws, and Teeth, which are looſe and black.

The Second, which is an evident Sign alſo, is Spots in the Legs which at firſt are Red, and after Purple, blue, and black: Somtimes there are in the Legs broad ſpots, black or blue, or both; theſe come from the ſerous filthy part of the blood which is unfit to nouriſh the body, and therefore is ſent by nature out of the Veins to the Skin, by the Nauſioſis of the Veins, as *Hippocrates* ſaies of Fractures, and this happens often in the Shins and Legs, becauſe nature uſeth to ſend the worſt Humors

to the most ignoble and remotest parts; sometimes when there is more plenty of matter you shal find them in the back, arms, neck, and face.

The third sign, is shortness of Breath, and straightness of the Breast, which comes commonly from thick vapors, arising from the Hypochondria, that get to the Midriff, as also from Tumors and swellings by wind of those parts that press upon the Midriff, especially from the swelling of the Sweetbread, which commonly in this Disease is filled with gross Melancholly: Hence the Patients complain not of their Breast, but of the part affected, whereby they feel the weight, and by reason whereof the Breath is short, as *Eugalenus* noted well, who was much acquainted with this Disease, and many Observations therein: yet he knew not the cause of this weight, namely, the swelling of the Sweet-bread; nor doth any that write hereof make mention of it. Yet we observed it in My Lord *Audeyer*, President of the Senate of Gratianopolis, whom we thought had the Scurvy, as you may reade in his History, at length, in our Observations, Cent. 3. Obs. 85. For being very lean, we did easily perceive with our fingers, a hardness in the Sweet-bread; and by handling of the part, he confessed that all his shortness of Breath and straightness came from thence.

The fourth sign, is Lazines, and heavines of Body, especially in the Legs, which comes from watery and foul Humors, which come through the Veins to the Muscles, and the whol body.

The fifth sign is in the Urine, which is divers, as in Hypochondriack Melancholly; but in this they sometimes differ, because they are cleer and red like a Lye, from the plenty of salt Humors. The redness is higher and inclining to black, by how much the more salt humour there is. As in a Lixivium sometimes the Urine is very thick, with a red thick sediment, like the Pouder of Bricks, and sometimes this Humor is so much, that it causeth burning and pissing by drops, especially in them who have this Disease from stoppage of the Hemorrhoids; and after it is setled, the third or fourth part of the Urinal is filled with thick and black filth, which makes some think it to be the Stone or Ulcer of the Bladder.

Sometimes the Urine varieth without manifest cause; to day thick, to morrow thin; now pale, then yellow, or red.

The sixth sign is from the Pulse, which is now weak and unequal, leaping, or formicans, that you would wonder he should live with it; anon it is great and hard, without Inflamation. And this is to be observed, That in time of fainting and swooning, with which he is often troubled, his Pulse is greatest and strongest. Which comes from the Heart contending to cast out those vapors with which it is oppressed.

The seventh sign, is pain in divers parts: in the Thighs heavy, and sometimes stretching; sometimes *Ostokopos*, or at the bone; sometimes in the Shins, Ankles, Soals of the Feet, in the tips of the Fingers, in the Hips, Knees, and other Joynts, or parts to which the Salt Humors flow; sometimes in the Belly, like the Chollerick Chollick; and it comes from these Humors flowing upon the Caul: these in the Arms, Thighs, and Legs, are like those of the Pox, and may wel deceive a Physitian in *France*, where the Scurvy is rare, and the Pox common.

But they may be thus distinguished; The pains in the Pox are between the Joynts and if they stay long, make knots, and there are, or have been then also other Symptomes of it, as running of the Reins, Ulcer of the Yard, Bubo, and the like, or Uncleanness with Women. But the Scurvy pains seize upon al parts indifferently; and then there are other signs of it, or at least a Melancholick Constitution; and the Matter is certainly known, if the Patient wil truly say that he hath not been with un-clean Women. Which caused our suspicion in a Magistrate, who had a long time great pain in his Feet, Shins, and Thighs, and was brought very lean, so that you would have thought that he had the Marasmus, or Consumption: And when no Medicines for a long time would do him good, we from his Melancholick Complexion, and other signs, especially because he led a most chast life, and because for many yeers his Gums did bleed at certain times, conjectured that it was the Scurvy, and by using of things against that Disease for some time, he was cured.

Sometimes those pains remain in the Hypochondria, sometimes in the Loyns, so that they are weak, and can scarce go. Hence this Disease is called *Lumbago*.

Sometimes the pains are like the Stone, and the Urine is very red or black; and if you do not diligently observe, you will think they are bloody, and that it comes from the Reins wounded by the Stone, when it is from a scurvy salt Matter in the Spleen, and parts adjacent, sent into the Urine.

Some have Head-ach, and heat at nights, if they caught this Disease from stoppage of the Hemorrhoids, by reason of the vapors which ascend, and all the night after they are as in a Feaver all over their Bodies; which the next morning vanisheth by sweating.

They have often the Tooth-ach, without any evident reason or cause; and it is not in one place, but movable from one Tooth to another, making them loose, and they again fix of their own accord, the pain and tumor being discussed.

Sometimes

Somtimes the pain of the Scurvy is in the sides, imitating the Pleurisie; from which it is easily distinguished, because it is without a Feaver, at least a strong one; the breath is not hindered, there is no Cough, no spitting, nor is the pain constant, but coming by fits.

Also it will be in the Joynts; and we must declare how it is distinguished from a true Arthritis, or Joynt-gout. The pain of the Joynts in the Scurvy, is not fixed and constant in the same place, but runs from one Joynt to another, either on the same, or on the contrary side; somtimes it vanisheth, and then returns; so that he which now seems free, and in perfect health, is suddenly taken with pain, somtimes with swelling, somtimes without. But a true Joynt-gout seldom changeth the place.

The Joynt Scurvy hath this peculiar distinction: It is for the most part joyned with a smal Palsey, by reason whereof the Patient can hardly move the part affected; and when the Palsey seizeth or returneth, the pain doth so also.

The eighth sign is from the divers hinderances of Motion, they have a bastard Palsey; the Examples whereof we laid down in our Observations: and it is distinguished from a true Palsey, because this is constant; but in the Palsey from the Scurvy, he that yesterday could scarce set one foot before another, can now stand, and walk with a little help, and it may be presently after he cannot move at all: and somtimes the motion is trembling, and with Convulsion, which doth not happen in a true Palsey. And this kind of Palsey cometh from a filthy kind of Matter or vapor, which gets into the Nerves and Muscles. And if the Matter be sharp, it causeth trembling and Convulsion by pulling the Nervous parts.

And Convulsions are not only in some peculiar part, but somtimes in the whol Body like an Epilepsie, by a windy or watery matter full of sharpness, and malignity, which is sent to the Brain, which being discussed doth give ease, and gathered again, maketh new Convulsions.

Also in this Disease there is a Contraction of the Members, somtimes of all, so that the Patient cannot move one Joynt; somtimes of one, and that principally in the Leg, when the Tendons which are made to move the Leg grow hard and stiff in the Hams. This contraction comes by reason of the salt Humor that flows with much moisture to the Nerves and Tendons; and when the thin and watery part, through continuance of time is consumed, the thick is dried and made hard; from whence come these contractions of Nerves and Tendons.

Somtimes there is a contraction in the Gullet, so that the Patient can scarce swallow, and is in fear of strangling. And this comes from astringent vapors, which contract the Oesophagus, or Gullet.

The ninth sign, is the Flux of the Belly, either with, or without blood. The simple Flux which is without blood, is distinguished from others, in that the Excrements are thicker, and more than the quantity of meat that is taken; when a common Flux is more thin, and of Humors only.

The Flux of blood in this Disease is distinguished from a Dysentery, because it is without pain of the belly, and it is thick blood which is sent into the Guts by the Meseraick Veins. Somtimes the Hemorrhoid Veins do receive that filthy blood, and send it forth: but if this flux of the belly continues long, the Veins swell, and send forth not only much blood, but also other salt and slimy Humors.

The tenth sign, is a stinking Breath, which is common to all in the Scurvy, as *Fugalenus* witnesseth, so that they which stand by cannot endure it, but must turn aside their Nose.

The eleventh sign, is often shivering, with none or little heat following it.

The twelfth sign, is an intermitting Feaver, which somtimes they have, which are unlike the other ordinary Agues or Feavers: for in them the Pulse is weak, slow, and unequal, especially in the declination; but in the height it is commonly great and hard. Besides, at the first coming there is such a twitching in divers parts, especially the Legs, that they suppose their flesh to be torn; and somtimes they have convulsive motions therewith. And though somtimes this Ague is a Quotidian, Tertian, or Quartan, yet somtimes the fits are disorderly, coming once it may be, or twice in a month, without certainty.

The Thirteenth Sign is Tumors in divers parts; somtimes hard, somtimes soft like bladders, and somtimes like an Erysipelas, or red Tumor.

The Fourteenth Sign is Atrophy or Consumption; which is so great in this Disease somtimes that they are nothing but skin and bones like a Sceleton or Anatomy; especially after long sickness, which comes from the evil blood; so changed from its natural Condition that it cannot be made like unto the parts which should nourish.

Fugalenus propounds many other Signs of the Scurvy, and *Sennertus* with others: some whereof are Common to many other Diseases, which we will Conceal, least they breed Confusion.

And though (as we said before) the Scurvy is not ordinary in France, as in Poland and other Northren parts, and almost unknown; yet if any in Practising Physick shal observe al the Symptomes of Melancholly he shal find some inclining to the Scurvy, in whom some of the former Symptomes proper to the Scurvy wil appear.

As to the Prognostick: This Disease is hard to be Cured, as al other that come of Melancholly, and here much more hard, because of the malignity in the Melancholly which doth more cruelly overthrow the body, and wil not obey the greatest part of Medicines.

It is also dangerous because it many times brings a Consumption or Dropsie, and destroyes others by sudden death, by an Apoplexy, Swooning, and other acute Diseases.

Yet sometimes they who have seemed desperate have been Cured, and oftener in this Disease than in any other: And we have seen some brought to a Consumption by long pain, and bloody Flux (which by many circumstances we conclude to be from the Scurvy) to have been perfectly Cured.

Moreover, The Pulse is deceitful, especially in the Fits; it wil be so quick, smal, and unequal sometimes that the Patient seems to be at deaths door; yet after his Fit he wil rise from his bed, and is as formerly; As we peculiarly observed in a Dutch Schollar, unto whom we being sent for in the time of his Fit, thought that he would presently die; but the next day we saw him seemingly in very good health; and when we had examined the Circumstances of the Disease, we Concluded that he had the Scurvy, which he brought out of his own Country where it is very usual.

The same Cure is to be used in this Disease as in Hypochondriack Melancholly: because as we said at the first it comes from the same Humor more differing from its natural state; therfore for the most part it needs stronger Medicines.

But because this is a general Rule in Physick, That we alwaies begin with the weakest Medicines, and so proceed to stronger, if the former will not cure: It will be good in this Disease to appoint the whol course of Cure for Hypochondriack Melancholly, because a stubborn disease requires a long course; and if that will not root out the Disease, let us then use the Medicines more specifically proper: Aud it will not be amiss to mix some such with the other at the beginning.

These Specifical Medicines are called *Antiscorbutica*, or Medicines proper for the Scurvy, and there are many of them in Authors that have written of this Disease; whose strength chiefly depends upon a Volatile or flying Salt, of which they are very full, by which means they make thin and fluid, that thick, earthy, and salt humor, and at length discuss it. Moreover, they have a certain preservative and opposing Vertue against the poyson of the Scurvy which is in the Melancholick Humor. Among these, the chief is Dutch Scurvy-grass, which is not in *France*. Another is, Cresses of both sorts (but the Water-cress is best) Brooklime, Horse-Rhadish, the lesser Celandine, Wormwood, and Fumitory. To which may be added many others, but of less vertue, and all they are such which can prepare, correct, and tame the Melancholick Humor. Hence it is that we directed the Cure against Hypochondriack Melancholly to be used here: Those are, Carduus, Ceterach, all the Capillar Herbs, Hyssop, Germander, Bettony, Agrimony, Borrage, Buglos, Elicampane, Atarum, Ditch Dock, Polypody of the Oak, Capar, Ash, and Tamarisk barks, Flowers of Elder, Tamarisk, and Dodder of Time.

In the choyce of these Plants, you must alwaies observe this, That you give the least quantity of hot things, and that you alwaies mix with them cold or moderate things, and in a greater quantity; especially in hot Countries, in which Melancholly is burnt. And besides the Capillar Herbs with Borrage, Buglos, and Agrimony before mentioned, when there is a Feaver, or we fear heat, you may ad Endive, Succory, Sorrel, Juyce of Citrons, Lemmons, Orrenges, and also Spirit of Sulphur, or Vitriol, or whey.

Of these former Plants you may make many sorts of Medicines, which are all gathered by *Sennertus* out of all Authors, which every man may imitate as he pleaseth. Yet this we must mark, which all Authors mention, That the aforesaid Plants work more powerfully if you take their Juyce, or make them into Conserves; because the flying salt wherein all their vertue remaineth is gone by decoction, as also if the Plant be dried.

We have used these following forms with good success.

Take of *cleer Juyces, of Water-cresses, and Brook-lime, of each one ounce: the Juyce of Fumitory two ounces: white Sugar two drams. Make a Potion.*

Or,

Take of *the Juyce of Fumitory, and Water-cresses, of each two ounces: mix them.*

Or,

Take of *the Juyces of Sorrel, Fumitory, and Water-cresses, of each two ounces. Mix them.*

You may give more Juyce of Sorrel, if you desire to cool more, or Juyce of Lemmons, or the like.

The

The power of the Medicines, will be more to dissolve that sticking clammy Tartar, if you add one dram of Salt of Tartar with Spirit of Sulphur, or Vitriol, one scruple or half a dram; and because in the use of these Medicines, we purge often, it is good to infuse one dram or two of Senna all night in the said Juyces, and give it every other day, or every third day.

It is worth your while to give somtimes also some Steeled Medicines, such as we prescribed in Hypochondriack Melancholly; as also the strongthening and opening Opiates, and others, as in wisdom you shall think fit.

And last, Mineral Waters that are sharp, and of Vitriol, used in due season, are very beneficial for the Cure of this Disease.

The End of the Twelfth Book.

THE

THE THIRTEENTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Mesentery, Sweet-bread, and Caule.

The Preface.

MAny Authors are very short in the explaining of the Diseases of the Mesentery, Sweet-bread, and Caul; and the most of them have left them out, because they are hard to be known, and for the most part only from Dissection of dead Bodies; as appears by stories in Schenkius, Sennertus, *and others. Yet they are very ordinary and usual: from whence* Fernelius *saith, That oftentimes there are causes of many Diseases in the Mesentery: as of Choller, Melancholly, Diarrhœa, Dysentery, evil Habit, Consumption, Faintness, of lingering Feavers, Vomitings, Chollicks, Tumors, and Imposthumes. And* Sylvius *called the Mesentery, the Mother of many Diseases: by others she is called the Physitians Nurse. We may say the same of the Sweet-bread and Caul; for they are ignoble parts, and as it were sinks of the Body, to which the noble Members do send their Excrements. And although these parts (as all other) are subject to all kinds of Diseases, Similary, Organical, and Common, and many Symptomes arise from them; yet we will only speak of those which are most in practice, and comprehend this Book in five Chapters. The first shall be of the Obstruction of the Mesentery. The second of the Inflamation of the Mesentery. The third of the Imposthume, Scirrhus, and Ulcer of the Mesentery. The fourth of the Diseases of the Sweet-bread. The fifth of the Diseases of the Caul.*

Chap. 1. *Of the Obstruction of the Mesentery.*

THese Obstructions in the Mesentery, come of the same Causes which are mentioned in the Obstructions of the Liver and Spleen; but they happen more easily, and more often, by reason of the straitness of the Meseraick Veins, and especially of the Milky Veins, which carry the Chylous Matter to the place of the second Concoction: and when that Chylous Matter is filled with crude and thick

thick juyce it comes to paſs that not having a free paſſage, it ſticks in thoſe little Veins and makes Obſtructions. Alſo the Meſeraick Veins are ſtopped by thick Humors ſent from the Liver, Spleen, and other parts, and there continuing till they grow thicker, ſo that ſomtimes they cauſe a Scirrhus. With theſe Humors ſomtimes groſs Vapors are mixed, which uſe to be the cauſe of great Symptomes. To the Obſtruction, or rather making narrow of theſe Veins, we refer compreſſion, which comes from the Glandles which are ſpread through the whol ſubſtance of the Meſentery: for when theſe grow beyond meaſure, as in thoſe who have the Kings Evil, or Struma, they compreſs the Meſeraick Veins, and hinder both the paſſage of the Chylus, and of the Blood.

The Signs of theſe Obſtructions are to be divided into three kinds, as we did in the Obſtructions of the Liver; namely, into ſuch as ſhew the Diſeaſe, the Part affected, or the Cauſe.

The Signs of the Diſeaſe (that is) of the Obſtructions lying in the Hypochondria, and alſo the Signs of the Cauſes are the ſame with the Obſtruction of the Liver and Spleen, and are from that Chapter to be taken. But thoſe Signs which properly ſhew the peculiar Diſeaſe of the Meſentery, are ſtretching, and reſiſtance in the middle of the Belly, and under the Stomach, and about the Navel; a weight in the ſame parts, and ſomtimes a dull pain, and ſomtimes a moſt ſharp, when wind is contained in thoſe parts; ſomtimes there is pain in the back, becauſe the Meſentery is tied to that part: there is rumbling in the Belly, belching, and vapors flying to the Head, from whence come divers Symptomes: and laſtly, all thoſe which uſe to happen in Hypochondriack Melancholly, ſignifie Obſtruction of the Meſentery, becauſe that alſo proceeds, and is maintained by the ſame Obſtructions.

As for the Prognoſtick: This Diſeaſe of its ſelf, is not dangerous, becauſe an ignoble part can endure great evils without danger of death: moreover, you may apply ſtrong Medicines for the Cure, which being well adminiſtred, do commonly bring about the deſired effect; except Hypochondriack Melancholly riſe from thence, which uſeth to be called the ſhame of Phyſitians, by reaſon of the rebellious Nature of the Melancholick Humor. But becauſe this part hath not exquiſite ſence, and the Obſtructions do not alwaies greatly diſturb the Patient, they are often neglected, and become the cauſes of other moſt dangerous diſeaſes.

The Cure of this Diſeaſe is the ſame with that of the Obſtruction of the Liver, and you muſt fetch it from the Chapter treating thereof.

Chap. 2. *Of the Inflamation of the Meſentery.*

WHen the Meſentery, as I ſaid, is as it were the ſink into which the Noble Parts do ſend their ſuperfluous Excrements, which afterwards are ſent forth by Nature, either by Vomit or Stool; as you may ſee in ſome who ſend abundance of Humors forth at divers times by Vomit and Stool: if thoſe Evacuations be hindered by ſtoppage of the waies by which they are made, or by any other cauſe, thoſe Humors which are there detained, ſtaying long in the part, do get a preternatural heat, from whence come putrefactions, inflamations, divers Feavers, and impoſthumes. But an Inflamation is peculiarly made, when blood heaped up in the Meſeraick Veins, by the opening of ſome branch is ſent into the ſubſtance of the Meſentery: but becauſe by reaſon of Obſtructions it is chiefly gathered in thoſe Veins, therefore all the cauſes of Obſtructions may be referred to the Cauſes of Inflamation.

For the making of this Inflamation, that ſharpneſs and gnawing of the Humors gathered together, do much conduce, a fall or ſtroak upon the Belly, the weakneſs of the attractive concoction, or retentive faculty of the Liver; too much heat of the body, or inordinate uſe of cooling things; the critical motion of Nature in malignant Diſeaſes, or ſmal Pox, by which it ſends the peccant Humors into this ſink; a Diarrhœa, or Dyſentery ſuddenly ſtopped.

The ſigns of the Inflamation of the Meſentery are, a lingering Feaver without Thirſt, and great Symptomes, want of Appetite, a ſence of ſtretching and heavineſs beneath the Stomach, without great hardneſs, and which is not felt but by the hand preſſing of it, and without pain, worth the ſpeaking of, becauſe the part is of dull ſence; Chollerick ſtools, which commonly hath thin matter, without pain, ſomtimes pure, ſomtimes mixed with Excrements.

If the Meſentery be only inflamed, all the aforeſaid Symptomes are milder: But if the Liver or Spleen, or Guts, are alſo inflamed, all the Symptomes are ſtronger: And beſides, the ſigns of the aforeſaid parts affected will appear, which are to be taken out of their proper Chapters.

And becauſe the Inflamation and Impoſthume of this part, are very hard to be known if they be alone, by reaſon of the dull ſence of the part, and becauſe it performeth no action in the body, whoſe hinderance may be perceived; but only ſerveth for the diſtribution of the Chylus and the Blood: therefore they are rather to be diſcovered by conſequence, than directly, and according to artificial

conjecture;

conjecture; namely, when there is a Feaver and other Symptomes, and no sign of the Liver, Spleen, or Guts distempered. A half Tertian Ague sheweth that the Guts are inflamed with the Mesentery; which *Spigelius* observed to come commonly from the Inflamation of these parts. Also this Disease is distinguished from the inflamation of the Muscles of the Belly, because the Tumor and pain is enlarged according to their proportion, and they are commonly long, or over the whol belly, and more in the outward parts, so that they are perceived by the least touch, and they use to bring great pain, and a Feaver.

Lastly, This Disease is to be distinguished from the Humors of the Midriff, which have been, as yet, known to few Physitians: for in them there is alwaies great difficulty of breathing, removing of the Hypochondria, a Pulse hard and smal, without any sence of Tumor in the Hypochondria. And if the Tumor come of a hot cause, a sharp Feaver, great pain, doting, and Convulsions do follow; which Symptomes never happen when the Mesentery is only inflamed.

As for the Prognostick: This Disease is very dangerous; for it either ends in an imposthume, or there follows a rottenness, and corruption of the Mesentery. Oftentimes the Matter of the Disease is sent by Nature another way, and yet is not clean taken away, whence the Disease returns, and continues for many yeers, somtimes till death, now with a Feaver, then a Chollick, or Inflamation.

The Cure of the Inflamation of the Mesentery, is not unlike to that of the Liver and Spleen, and therefore you must peruse that.

Chap. 3. *Of the Imposthume, Ulcer, and Scirrhus of the Mesentery.*

THe Inflamation of the Mesentery often turneth into an Imposthume, yet every Imposthume thereof is not from Inflamation, but many times from vitious Humors therein contained, which putrefie, so that these Imposthumes come by degrees without a Feaver afore going, or other great Symptomes; as we see in other parts, when *Atheromata*, *Steatomata*, and *Melicerides*, and other kinds of Imposthumes are bred without Inflamation going before. And when they are broken, the Matter being voided, there remains an Ulcer which is hard to be cured. Bnt if those Humors are very flegmatick, or Melanchollick, and resist putrefaction, they grow, and somtimes are hardened, and turn to a Scirrhus: somtimes they are as hard as a stone, as many affirm who have found stones in the Mesentery.

The Knowledg of the Imposthume in the Mesentery, is somtimes easie, somtimes hard; for if it comes from an Inflamation of that part, that being perceived by the signs in the former Chapter, it is a sign that the Inflamation could not be discussed, but suppurated and turned into an Imposthume. But when an Imposthume comes from evil Humors remaining long in the Mesentery, and at length putrefying, it is hard to know it; so that many Authors who have written Observations upon such kind of Imposthumes, say, that they never were known, but after death, when the Bodies were opened. For although for the most part, they may be known by the touch, yet somtimes they lie so deep, that they cannot be touched, and the part being dull in sence, that they will not be discovered by pain. But because they come divers waies, they must be thus distinguished.

If the Imposthume of the Mesentery, hath a visible Tumor, it is first to be discerned from an Inflamation and a Scirrhus: It is distinguished from an Inflamation if it come not from it, when there is no Feaver, or at least but smal, when none went before, nor any other signs that may shew an Inflamation; but if it follow an Inflamation, it can no other waies be distinguished than by hardness & continuance; for if the signs of Inflamation have continued twenty or thirty daies, it is a sign that it is turned into an Imposthume. It is distinguished from a Scirrhus by hardness, which is great in a Scirrhus, but in an Imposthume there is some kind of softness, as also by the want of pain altogether; for in an Imposthume there is alwaies some pain, especially if it be pressed hard. Moreover, this Tumor is distinguished from the Tumor of other parts, by the Scituation thereof, as we said before of the Inflamation of the Mesentery. But if the Imposthume lie in the Mesentery without any visible Tumor, there can be no certain sign, but by an artificial conjecture we may suspect, namely, if there be loathing of Meat, or vomiting without manifest fault of the Stomach, and a great fulness after little Meat, wearines of the whol Body, and fainting without manifest cause, if the Belly be unaccustomarily bound, or loose, and void stinking Excrements, and somtimes bloody, without suspicion of a Dysentery. To these you may add great watchings, and if they sleep they faint, and have great Sweats. And though somtimes there appear neither Feaver nor pain, yet there is commonly an obscure one; of which, if there appear no manifest cause, we must conjecture that it comes from this Disease, especially if any of the aforesaid

signs

signs be joyned therewith; as also if the Abdomen be violently pressed, the Patient will perceive some inward pain: it is true, that by violent compression you may cause pain in sound places; but if you perceive more pain in one part than in another, after all parts have been pressed, and when that part is alwaies most pained, and the more by pressing, you may strongly conjecture that the impost-hume is there.

If at length there come forth Matter, then the Impost hume will be manifest. Commonly it is voided by stool of divers sorts according to the disposition of the part affected, and of those adjacent.

Hence one while the Matter is pure and white in great plenty, without sence of pain, when it is sent by the Meseraick Veins into the Guts, sometimes when the Impost hume is in the thick and lowest Guts, the Matter is mixed with the Excrements, sometimes it is sent to the Reins, and cast forth by Urine; sometimes being sent in great quantities between the Peritonæum, and the Muscles of the Abdomen, it falls into the Cavity of the Belly by breaking of the Peritonæum, or breaks outwardly by an Impost hume, so that a great quantity of Matter flows from the Navel, and sometimes Worms therewith, through the corruption of the Mesentery. And that which sent forth by stool (which is the usual) is sometimes white and laudable, as was said; sometimes mixed with blood or water, sometimes black blood, and stinking, sometimes other black Matter, or of divers colors. But whether this purulent Matter come from the Mesentery, Liver, Spleen, or other part, it is known by the proper signs of every part affected.

When the Impost hume is broken, and the Matter floweth, it is certain that there is an Ulcer in the Mesentery, which sometimes is quickly cured, and sometimes it is of long continuance, and brings rottenness upon the whol part, and a Gangrene.

As for the Prognostick: The Impost hume of the Mesentery is dangerous; for if it continue long in the part, as it often happens, it breeds filthy rottenness, or a Gangrene, or brings the Patient into a Consumption or Dropsie. If it break, and the Ulcer be not quickly cured, but gets an evil condition, it hath the like event, a Gangrene, Consumption, or Dropsie. Sometimes when the Impost hume is broken, and very stinking Matter is sent into the Cavity of the Belly, the Patient dies suddenly. The Scirrhus, or hard Tumor of the Mesentery is left dangerous, and if it be new will admit of a Cure; but if it be old, it brings the Patient to a Dropsie.

The Cure of these Diseases, is to be varied according to the diversity of them. And first, an Impost hume bred requires opening and evacuation, and it must be softened with opening and purging Medicines, such as are laid down in the Obstructions of the Liver and Spleen, not omitting outward Softeners and Looseners, Fomentations, Cataplasms, and Liniments, which do make the Matter of the Impost hume thin, and open the passages that the Matter may better be voided.

After the Impost hume is opened, you must cleanse the Ulcer and heal it; for which purpose the Remedies mentioned in the Cure of the Ulcers of the Stomach, Liver, Reins, and Womb, are very good; of which a wise Physitian may take his choyce according to the divers dispositions both of the Bodies, and the Diseases.

And a Scirrhus of the Mesentery is cured with the same Medicines, which are set down for the Cure of the Scirrhus or hard Swelling of the Liver and Spleen.

Chap. 4. *Of the Diseases of the* Pancreas, *or Sweet-bread.*

THE Ancient Anatomists knew no action of the Pancreas, or Sweet-bread, but the use only, namely, to prop the Vessels, least they should be in danger of breaking, and to be instead of a Pillow to the Stomach, least when it is full it should be hurt by the hardness of the Vertebræ or Back-bone. But the Modern Anatomists have ascribed very great action unto it; namely, the first preparation of the Chyle, and cleansing of it, so that it may be brought to the Liver more pure; which the milky Veins seem to confirm, because they are dispersed through the Pancreas. Besides, in the middle of it there is an open passage which goes to the Guts, by which it is probable that the Excrements of the Chyle are purged; therefore the Pancreas hath its Diseases, which hurt the whol Body, especially Obstructions and Tumors, as the Mesentery hath; namely, when the Chylous Matter is crude and thick, and is brought to it from the Stomach, not sufficiently digested, and when it doth not freely flow from it.

Riolanus observed a Scirrhus of the Pancreas, in *Augustine Thuanus*, that wrote the History of his Times most elegantly in Latin; who when he had for four yeers, among other Symptomes, a heavineſs continually in his Stomach, especially when he walked or stood still, without Swelling or hardness in the Hypochondria, had a Pancreas as big as his Liver, after he was dead, hard and Scirrhus, full of knots like Pidgeons Eggs.

But because the Pancreas is covered with the Stomach, its Tumors are scarce to be felt; and this is

the cause, because there is no mention commonly of them, and they have been found only after death: Yet you may make a handsom Conjecture of them, from what *Riolanus* observed in *Thuanus*, namely, If there be a sence of weight or heavinesse in the Stomach, and no Tumor or hardnesse in the Hypochondria; and other signs of Obstructions than are mentioned in the Obstructions of the Liver, Spleen, and Mesentery. To which you may add pain, and other Symptomes of the Stomach, by reason of its neerness, shortness of breath, by reason of the compression of the Diaphragma; By which signs we suppose that the Lord *Andeyerius*, President of the Senate of Gratianopolis, had a Scirrhus of the Pancreas, and we could perceive it by touching, by putting our hand deep to the sides of the Stomach about the middle, because he was lean; and we found a hardness there, which being touched, pained him: the story whereof, is at large related in our 81. Observation, Cent. 3. And in the knowledg of the Scurvy we observed (which none that ever wrote thereof did) That in all Scurvyes there is a Tumor of the Pancreas, because you may find a straightness, oppression, and weight in the Region of the Stomach: And this Sign is laid down for a cleer one by *Fuchsius*, *Sennertus*, and others.

There are some stories in Authors, of Imposthumes found in the Pancreas, which were not discovered while the Patients lived. But by the Symptomes they had they may be partly known; as some like those of the Scirrhus; to which you may joyn these, a lingering Feaver, which is the companion of almost all inward Impostbumes, much watching, short sleep, and after it, pain, swooning, and cold sweats.

The Cure of the Obstruction, Scirrhus, and Imposthume of the Pancreas, is the same with those of the Liver, Spleen, and Mesentery. There you may fetch Medicines from the Chapters concerning them.

Chap. 5. *Of the Diseases of the Caul, or Omentum.*

BEcause the Omentum is a soft part, and fat, fit by reason of its loosness to receive Humors that come from other parts: It is subject to divers Diseases, as the Mesentery and Pancreas: And these are not described by Authors, because they can scarce be seen in living men, but only by Anatomy, as you may see in some Stories in our Observations. *Vesalius* saith that he saw in a Body opened, an Omentum so swoln that it weighed five pounds, when in its Natural condition it would weigh scarce half a pound. *Roussetus* in *lib. de partu Cæsareo*, reports that in *Paris* there was found a great Imposthume in the Omentum. *Riolanus* in his Anthropographia, saith that he saw an Omentum in a Noble Youth of nineteen yeers of age, so full of kernels, by which it received abundance of filthy Humors, the Mesentery and Pancreas being imposthumated, and the Spleen almost consumed. We also saw a Scirrhus Omentum in a Fryar of *Montpelior* all over the lower part of the Belly, and four fingers thick; it was of the color of the Spleen, so that it was probable that it was caused by Melancholly from thence, because he was of a Melancholick temper, and the passage is very open by the branches of the Spleen Veins, to the Omentum; by which branches (as *Hippocrates* teacheth, the water in a Dropsie is brought from the Spleen to the Omentum, from which by degrees it distils into the Cavity of the Abdomen.

But because the swelling of the Omentum can by no means be distinguished from that of the Mesentery, therefore we cannot appoint a distinct knowledg. It is true, that the Tumors of the Omentum are easier known at the first touch, because it is immediately under the Peritonæum; but the Mesentery is deeper. But the Tumors of the Mesentery arise greater towards the Peritonæum, and are sometimes so united to it, and the Muscles of the lower Belly, that they are sent forth by suppuration through the Navel, or other external parts.

Yet this Difficulty of Knowledg, doth not hinder the Cure, because the same Medicines serve for all Tumors that are alike in all the parts of the belly: but the Cure is worse to be made in the Omentum, because it hath not fit way, as other parts have for the purging of its self.

The End of the Thirteenth Book.

THE

THE FOURTEENTH BOOK OF THE PRACTICE OF PHYSICK.

Of the Diseases of the Reins and Bladder.

The PREFACE.

THE *Reins and Bladder have divers, and all sorts of Diseases, both Similary, Organical, and Common; from which, divers Symptomes arise, both in the actions hurt, and also in the fault of the Evacuations. We will comprehend the chief in Nine Chapters. The First shall be of the Stone in the Kidneys, and the pain of the Reins, called* Dolor Nephriticus. *The Second of the Stone in the Bladder. The Third of the Inflamation of the Reins and Bladder. The Fourth of Pissing of Blood. The Fifth of the Ulcer of the Reins and Bladder. The Sixth of Diabetes, or Involuntary pissing. The Seventh of the not holding of the Water. The Eighth of Ischuria, or stoppage of the Water, and Strangury. The Ninth of Dysuria, or scattering of the Urine.*

Chap. 1. *Of the Stone in the Kidneyes, and Pain in the Reins, called* Dolor Nephriticus.

THat is called *Dolor Nephriticus* which doth afflict the Ureters or Reins; the common people call it the Stone-Chollick, because of the great affinity it hath with the Chollick, so that it is hard to distinguish them, as you shall see in the Diagnostick, or Signs.

The Cause of this Pain is manifold, but chiefly the stone or thick flegm. A stone continuing in the Reins, causeth either little or no pain, because the substance of the Reins hath little Sence: but if it fall upon the Head of the Ureters, or get into the passage, and distend it, and cannot be brought to the Bladder by reason of its greatness, then it causeth grievous pain. But gross flegm fastened upon the Ureters, doth distend them, and causeth the Nephritical pain.

The less ordinary Causes are, thick blood fixed in the Ureters, or thick Matter coming from the Kidneyes, or other parts; sometimes wind gets into the Cavity, and causeth great pain.

There are many Controversies in Authors about the stone, which is the chief and usual cause of the pain of the Reins, which we shall not accurately declare, but only touch those things which are necessary to declare its Nature and Causes.

And first, they doubt under what kind of Disease they should reckon the stone; *Galen* placeth it among the Diseases in number, of those things which are wholly besides Nature, as also the Worms. For though a Disease in number properly doth respect living parts, whose number being encreased or diminished, maketh an organical Disease; yet those things which are preternaturally added to the number of those things of which the Body is compounded, ought to be referred to the Diseases in number, so that sometimes the bare qualities are sometimes referred to Diseases in number; when they do immediately hurt the actions, as yellowness in the Eye of one that hath the Jaundice, a noise in the Ears, and a bitter tast upon the Tongue.

Oftentimes the stone is reckoned among Causes of Diseases, as it breeds Obstruction or Distention.

It may also be placed among the Symptomes, those that are voided or retained: for if it be retained in the Kidneys, Reins, or Bladder, when it should be voided, it is to be reckoned among those things that are preternaturally retained: but when it is voided, it is to be reckoned among those that are voided wholly against Nature.

But there is more difficulty about the cause of the stone, both material and efficient. *Galen* and his posterity, thought that flegm was the material cause of the stone, which is thick and slimy, fit to be hardened, and (as they say of late) fæculent, slimy, and Tartarous, and heat the efficient, which drieth and hardeneth that matter, and at length turneth it into a stone Which Doctrine is opposed with strong Reasons.

First, If it should come of a slimy and thick flegm, then it would often be bred in the Brain and the Stomach, in which such flegm doth chiefly abound. Neither will it suffice to say that there is not sufficient heat in those parts to harden it; because according to the Doctrine of *Hippocrates* and *Galen*, a gentle heat by a continual action is sufficint to congeal; and hence is the reason why old men do more often breed the stone, when yong men have hotter Kidneys; because the matter of the stone lies longer in old mens Reins, by reason of the weakness of the expulsive Faculty, and so it's longer concocted by the heat, and at length hardened.

Secondly, From *Aristotle*, 2. *meteor. cap.* 4. they which grow together by heat, are melted by moisture, as Clay. But the stone is never dissolved with water. Neither doth it hinder to say that a strong heat makes such a Concretion or growing together, that it cannot be dissolved by moisture, as in Bricks. For first, in Man there is not so great a heat; then the not dissolving of Bricks with Water is not because of the strong heat they had, but rather from the disposition of the Clay; for Clay made of common Earth, although it be baked in a Furnace, wil never be hard as a Brick, but alwayes be dissolved with moisture.

Thirdly, From *Aristotle* in the place mentioned, the heat that makes concretion must be dry. But there is a continual flowing of moisture into the Reins and Bladder, therefore such a drying and hardening cannot be in those parts.

Fourthly, Stones bred in Rivers and Fountains, in which there is no heat, and in some Dens and Holes that are very cold, the water that fals turns into a stone; from whence strange shapes do arise. Therefore we must find another cause besides heat, and another Matter besides clammy and glutinous Flegm.

Fifthly, Flegm made hard is like Chalk, and is brittle, as you may see in the knots of the Joynts. But some stones are like flints, which they cannot be from Flegm: nor is there so much heat in mans Body to make it so.

This slimy flegm hath deceived the Physitians of all Ages, which is found in the Urine of many Patients, and they thought it to be the immediate Cause: But they were out. For first, In the stone of the Kidneys such Urines are seldom made, but often in the stone of the Bladder. But if this were the matter of the stone it would be alike in both. Therefore this Matter depends especially upon the proper Disease of the Bladder, for it is an Excrement of it distempered. The disease of the Bladder is this: we have seen in the Bodies of them who have died of the Stone in the Bladder, and who voided much of that matter, that the bladder grew fleshy, as thick as ones finger or thumb, so that it filled the whol Cavity, and lay next to the stone till by stopping the Urine it killed the Patient. But in those who made thin cleer Urine, their bladder was not altered. The Reason of these accidents are taken out of *Hipp.* Aph. 66. Sect. 5. If there be no Tumor in great and evil wounds, it is evil. And *Galen* gives the Reason because there is a suspicion that the Humors which should come by reason of pain to the wound, are gone to some noble part. Moreover, it is Natural to all parts; as *Galen, lib. de diff. febr. cap.* 11. that they which are stronger, send that which hurteth them to the weaker, nor do they cease so doing till it come to the weakest. So when the part wounded is very weak, and therefore fit to receive Humors, if they come not thither, it is a sign that other parts are very weak,

which

which cannot ſend, and that others are weaker than the wounded, to which the humors are carried. Not only the bad Humors are carried to the wound, but alſo good blood, which Nature ſends to refreſh it. All theſe things are in the bladder that hath the ſtone. A great uneven ſtone, or ſharp, hurts the Tunicle of the Bladder; hence comes pain and weakneſs. And Nature to help it ſends more than uſual blood, and the ſtronger parts ſend their ſuperfluities. Theſe the bladder concocteth as much as may be into its ſelf, and ſo groweth thicker. But when it cannot take in all, eſpecially the evil Humors, hence come many foul Excrements, which from the Nature of the part turn to flegmatick. But in them who have clear Urine, either the ſtone hurteth not, which cauſeth the attraction, or ſome other parts are weaker than the bladder, to which the humors flow.

But becauſe this Doctrine doth deſtroy an old Opinion, we will confirm it by a cleer Example of the Womb. The Womb is Membranous, as the bladder: but in Women with Child it is fleſhy and thick; ſo that in the laſt months it is two fingers thick; becauſe Nature all the time ſends much blood to it to nouriſh the Child; which when the Child doth not wholly conſume, ſome part of it is taken into the Womb: and ſo it encreaſeth. The ſame is in the Bladder, though Preternaturally (which in the Womb is Natural) that when much blood comes to it, it converts it into its ſelf, and grows thicker. But if without being with Child, the Womb be diſtempered and made weak, then Humors ſuperfluous from other parts come to it, which when they cannot be taken into its ſubſtance, turns to the Whites. And that flux is a proper Excrement of the Womb, as the flegm is of the bladder. The ſame thing is in the Reins, though not ſo often; as when by a ſtone in them there is pain and weakneſs, Nature ſends much blood and humors to them, which when they cannot be turned into the ſubſtance of the part, they are turned into a ſlimy Excrement, which is voided in abundance; and this vulgar Phyſitians take for Matter or Pus, which is only flegm, or mixed with a little Pus, as when by the grating of the ſtone there is an Ulcer.

Some Modern Writers being converted with the aforeſaid Reaſons, have made a Juyce, which will turn into a ſtone to be the material cauſe of the ſtone called *Succus Lapideſcens*; and the efficient to be *Spiritus Lapideſcens*. They call the former a certain Humor naturally proper to turn into a ſtone: And this they deſire to prove by the breeding of ſtones in the Earth, which are by many Authors ſaid to come of Waters and things caſt thereinto to be hardened preſently; ſome Waters in Caves to be made Stones, and ſome part of the Wine groweth to the Veſſel, called Tartar; and Urines that are cleer, when they are cold grow to the glaſs. And although the peculiar fitneſs of the Matter to be thus turned, is not ſufficiently known; yet ſome ſay they have found it out, ſaying that it is of Salt mixed with Earth. Some Salts do grow hard in the Sun, and are eaſily diſſolved in Water; and if they be joyned with Earth like themſelves, by the force of the efficient cauſe they may be ſtones. So we ſee in Wines turned to Tartar: but Tartar calcined goes all into Salt, which ſhews that it is chiefly made of Salt. So in Urines that have much Salt, eſpecially in thoſe which have ſlimy matter, we ſee a Tartarous Matter cleaving to the glaſs. This Salt Matter, which is mixed with the Urine, comes from Meat and Drink ſo affected, and they are caſt forth in a ſound Body, nor are they retained in the Reins when the efficient Cauſe is abſent.

We have called the efficient Cauſe, *Spiritum Lapidificum*, or a Spirit that makes a ſtone: *Fernelius* calls it a ſtony diſpoſition, which is in the Reins commonly Hæreditarily. But we like the foremoſt Title beſt. For firſt, ſome have ſtones which have them not Hæreditarily if they eat or drink things that breed them, becauſe in them there is both the Material and Efficient Cauſe; therefore the Hermets impute the Efficient Cauſe of ſtones to their proper ſeeds, which in a Matter rightly diſpoſed, produce their form.

Moreover, Many Hiſtories ſhew that Stones come from a Stone making Spirit, of Men, Beaſts, and other things turned into Stones by a Breath or Spirit out of the Earth. So in *Aventinus*, lib. 7. *Annal. Bavar. an.* 1343. that more than fifty Country men and their Cows, were turned into Stones. And ſo ſaies *Ortelius* in his Deſcription of *Ruſſia*, of whol Heards of Cattel. So alſo *Camerarius* reports of a South wind that bloweth ſome times of the yeer, in the Province of *Chilo*, in *Armenia*, by the blaſts whereof, whol Troops of Horſes are ſuddenly turned into Statues of Stone, and ſtand in the ſame rank and file in which they were.

This Stone making Spirit, is not only in the Reins of thoſe which have this Diſeaſe, but alſo in the Juyce of thoſe things that are eaten and drunk ſeparated from them; ſo that ſomtimes both come together: Hence it is that ſome that eat but any Meats that incline to the breeding of the ſtone, do preſently produce it, becauſe there is a Stone-breeding diſpoſition, or Stone-making Spirit in their Reins. But if their Reins be free from this Spirit, ſuch meat will not breed ſtones, becauſe their ſtone-making force is not ſtrong enough without the aſſiſtance of the Reins to convert that matter into ſtone. On the Contrary, if the ſtone-making power be greater in the meats that are taken, and they are often eaten, ſtones will be bred, although the Kidneys have no ſuch diſpoſition or ſtone-making Spirit. So we ſee in divers places, where the Water or Wine are full of ſtone-making juyce,

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the greatest part of the Inhabitants are subject to the stone; as we may see in *Ovid* concerning the Thracians, in these Verses:

The Thracian Waters, all things Marble make,
Their Guts turn Stone that inwardly them take.

And contrary, If there be that stone-making vertue in the Kidneys, it makes stones of any nourishment, though never so wholsom. So about three yeers since, I saw one who for three or four months voided more than twelve little stones every day by Urine, when all that while he kept his bed, very sick, and fed only upon Broth and Panadoes.

The Antecedent and Primary Causes, either respect the supply of Matter for the stone, or the constitution of the Reins, by reason whereof the stones do more easily grow.

The Stomach, Liver, Spleen, and Reins, do much cause the breeding and heaping up of Matter for the stone; chiefly the Stomach, if it do not wel concoct, there is a crude Chyle brought to the Liver; and from thence impure and Earthy Juyces are sent with the Serum or Water into the Reins. A hot liver doth bake the Chylous Matter, and makes it fit to breed a stone; as also being too cold it makes crude blood most fit for the same purpose. A Spleen weak or stopped, or otherwise disturbed, doth not sufficiently purge the drosse part of the blood, but sends part of it to the Reins, which will more easily be turned into a stone. And lastly, the Reins besides their conjunct cause, which is a stony disposition, are an Antecedent Cause in two respects; namely, in respect of their Temper, and of their Form. In regard of their hot Temper, they more violently draw the Stone-making Matter, and thicken it more: but in respect of their Form, they are an Antecedent Cause, if the Emulgent Veins are more loose, so that that thick and Tartarous Matter may be more easily received into the Reins; or if the Ureters, and those Vessels that send the serous Matter to them, be too narrow, so that the thick Matter hath not a free passage, but is retained in the Reins.

Thick and slimy Nourishment doth chiefly afford Matter for the Stone, such as are full of Salt, as Beef, Pork, Hairs, Geese, or things dried in the Smoak, or poudered, as Salt-fish, Shel-fish, Eeles, Pulse, Cheese, and all Milk meats, hard Eggs, Chesnuts, Pears, Quinces, Medlars, unleavened Bread, and Rice; thick Wine, sharp or black, or new Wine not purged, standing Waters, and such as are full of stone-breeding Juyce.

To these add very hot Meats, as Pepper, Ginger, Garlick, Onions, old strong Wine, which makes the Liver and Reins too hot, too strong Diureticks, which carry the Matter that will cause the Disease too violently to the Reins; thick Garments, Down Beds, Baths, inordinate Lechery, which is a great Enemy to the Reins, violent Exercise, especially after meat, too much feeding, or long fasting, great anger, and other passions.

The Signs of the Stone taken by themselves, are equivocal, and common to other Diseases: but if you consider them all together, you may have certain Knowledg by them.

The First Sign, is a fixed pain about the Loyns, sometimes heavy when the Stone is fastened to the substance; which being of a dull sence, hath a weighty pain; but as often as the Stone gets into the Head of the Ureters, then it causeth a sharp and pricking pain, and this is called the Nephritical pain, or pain of the Reins, and it continueth while the stone is there; neither will it cease to torment the Patient till the stone get into the Cavity of the Bladder, or turn back into the hollow of the Kidneyes.

The Second Sign, is bloody Urine, which comes from the opening or corrosion of the Veins which are dispersed into the substance of the Reins, which comes from the rubbing of the Stone that sticks in the substance; but if there be but little blood voided, being mixed with Urine it looseth its color, so that the Urine looks like a Lye. This Sign is not alwaies, but sometimes depends upon other causes. But when it doth appear, it is one of the chief, which distinguisheth the Stone from the Chollick. It useth to be caused by riding, much walking, and other violent exercise; for then the stone if it be rough and snaggy, being removed from its place, doth cut and tear the tender Flesh of the Kidneyes.

The Third Sign, is thin Urine, water-like, and little, in the beginning of the fit; after which sometimes followeth a total stoppage, if both Ureters are stopped: but when the fit is past, and the stone that was fixed in the Ureters is fallen into the bladder, there comes forth much thick troubled Urine, with a sandy Sediment.

The Fourth Sign, is often voiding of sand and stones. Concerning voiding of a stone, it is evident, That if the Patient voided any formerly, though never so smal, when he had a fit, it is most certain that the Disease is the Stone. But concerning Sand we cannot speak so infallible; for we may see many all their lives time void Gravel, and never be troubled with the stone; for sand comes often from adustion of Humors in the Liver and Veins, and it sticks to the sides of the Urinal, and goes not to the bottom, as that which comes from the Reins. Besides, if you rub it between your fingers, it dissolveth, and is like Salt, when the other will not yeeld to the fingers, and will not dissolve. And finally, because this Sand is salt, it is dissolved in hot Urine, nor will it appear while the Urine

Urine is ſo; but when it is cold it grows together to the ſides of the Urinal, not unlike the Cryſtal of Tartar; which being diſſolved in warm water, when it grows cold, congealeth and ſticks to the ſides of the Glaſs; ſo the Nature of them both is very like.

The Fifth Sign, is a ſtone voided, and this is moſt certain: For if any former Sign, though equivocal do appear, and a ſtone be voided, you may be certain of the Diſeaſe.

The Sixth Sign, is a numbneſs of the Thigh on the ſame ſide that the Back is pained of: for the ſtone being great, doth oppreſs the Nerve which is inſerted into the Muſcles of the Loyns, under the Reins, called by the Anatomiſts *Pſoas*, and thoſe Muſcles go to the Hip for its motion, ſuch a numbneſs is perceived by ſitting upon the Thigh, through the compreſſion; or in the Arm by long leaning thereon.

The Seventh Sign, is the drawing in of one ſtone, on that ſide where the pain is: For the Kidneys and Ureters being provoked with the greatneſs of the pain, do vehemently contract themſelves, and then the Spermatical Veſſels and all the parts adjacent are alſo contracted, and theſe Veſſels do raiſe up the ſtone which is joyned to them, ſo that it ſeems ſometimes to be fixed to the Groyn. And this retraction or drawing in of parts reacheth to the bladder and Guts: For in great pain the belly is bound, and Urine ſtopped; ſo that then Purges will not work by reaſon they are hindered by that Contraction.

The Eighth Sign is, loathing and vomiting by the connexion of the Kidneys with the Stomach, by the Membrane that comes from the Peritonæum, and by the Nerve of the ſixth Conjugation, two branches whereof reach from the Stomach to the inward Tunicle of the Kidneys. Therefore when thoſe ſenſible parts in the Kidneys are pulled, the Stomach conſenting, is ſtirred up to exclude that which hurteth; and firſt it ſends out Flegm, then yellow Choller, after green, if the evil continue, becauſe through long pain and watching the blood is altered in the Veins, and that part which is moſt diſpoſed for it, is turned into green Choller.

Finally, The Nephritical pain is ſo like the Chollick, that *Galen* himſelf was deceived in the diſtinguiſhing of them, as we ſhewed in the Diagnoſis or Knowldg of the Chollick: where alſo we laid down ſigns by which we may diſtinguiſh them, which we ſhall not need to repeat.

The Signs afore mentioned are equivocal, and one of them can ſcarce give a certain knowledg. Some Authors mention others, which are more equivocal and uncertain, but joyned with others they help the knowledg of the Diſeaſe, therefore it will not be amiſs to mention them.

Hipp. Aph. 34. Sect. 7. ſaith, *They who have bubbles in their Urine, have an old Diſeaſe in the Reins.* For theſe bubbles come from thick Humors full of groſs vapors, which are either bred in the Reins, or ſent from other parts to them, that matter is proper to breed the ſtone, and cannot be preſently cured, therefore the Diſeaſe is long. *Galen* in his Comment upon this Aporiſm, ſaith that the mouthes of the Arteries which come to the Reins, are opened by the ſharpneſs of the Urine, and thence comes a Spirit which being mixed with the Urine, maketh bubbles. But it is not probable that ſuch a groſs Spirit that will remain ſo long, ſhould come from the Arteries, and Urine being cold may long time ſo continue, as we ſee many bubbles many hours ſwimming thereupon. And alſo when the Arteries are opened by the ſharpneſs of the Urine, blood will alſo come forth. And the mouthes of the Veins having thin Skins, would be more eaſily opened, and ſo there would be alſo blood mixed with the bubbles.

Hippocrates alſo Aph. 76. Sect. 4. ſaith, *They who void little bits of fleſh, and things like hairs, with a thick Urine, do it from the Reins.* The bits of fleſh come from the Ulcer of the Reins, of which we ſhall ſpeak hereafter: but theſe thrids or hairs are ſaid by *Galen*, in his Commentaries, to come from thick and crude flegm, made long and round by the extraordinary heat of the Reins. Yet *Galen* confeſſeth, 6. loc. aff. cap. 3. that after a long ſearch he was ignorant of the cauſe of their length. *Avicen* ſaith that theſe thrids grow long in the veſſels of the Reins, or others; for in regard theſe are taken away by Diureticks, and the Patients acknowledg pain in the Reins, it is credible that they receive their form from thence. *Actuarius* doth directly ſay they come from the Ureters: For when the Reins abound with flegm, it goes with the Urine into the Ureters, and ſticking to them and growing thick by heat, it gets a long ſhape like a thrid or hair. But *Fernelius* writes that thoſe hairs come from the Paraſtatis or kernels, from his Obſervation, in which they grow long like hairs from the matter of the ſeed, which by force of the Diſeaſe flowing down by degrees, grows thick by heat, and that they appear much in thoſe who have lately had a filthy Gonorrhœa, and in thoſe women who have the Whites, or a foul Womb, and in that Urine which they make next after they have known a man. Others ſuppoſe, that thoſe thick Humors of which thoſe filaments or hairs are made, are firſt bred in the Veins, but take their form in the narrow paſſages of the Reins, through which, as through a ſieve, they turn ſmal, and after they deſcend into the Ureters, in which they grow dryer, till they are ſent into the bladder, neither can they be broken by reaſon of their toughneſs. Whatſoever the cauſe is, ſince the beſt Authors do agree that theſe hairs breed of thick flegm in the Kidneys,

or come to them from other parts, it is certain that they may turn into a stone, if there be an efficient cause fit to produce it. And therefore this may be a probable sign of the stone.

As for the Prognostick. The stone of the Kidneys is very dangerous, for it useth to bring great evils; as Inflamation, Exulceration, great Pains, Watchings, dejection of strength, Feavers, stoppings of Urine, and the like dangerous Symptomes.

If this Disease be Hæreditary coming from the Parents, it is incurable.

And because *Hippocrates* saith that the Diseases of the Reins are hard to be cured in old men, Aph. 6. Sect. 6. The Stone of the Kidneyes in old men is difficult, if not incurable.

If the pain of the Kidneys continue many daies, and cannot be cured with any Medicines, there is danger of death, and it is neer at hand when they are cold externally, and have a cold sweat in the face. Urines that are first thin, and after thick, and have sand at the bottom, do signifie that the fit is towards an end.

A Stone joyned with an Ulcer in the Kidneys, is incurable: for those things which break the Stone, do exasperate the Ulcer.

The Cure of the pain of the Kidneys, and stone sticking in them, or in the Ureters, is by enlarging of the passages, and relaxing them by throwing forth the stone, and any other thing that hurts them, by removing or taking away the antecedent cause, and by taking away the pain. Which you may do with these Medicines.

Take of *Marsh-mallow and Lilly Roots, of each one ounce: Mallows, Violets, Pellitory, Bear-foot, of each one handful: Lin-seed and Fenugreek seed, of each half an ounce: fat Figgs, six: Chamomel and Melilot Flowers, of each one pugil: boyl them to a pint. Dissolve in the straining, Cassia, and Diacatholicon, of each six drams: Oyl of Lillies and Violets, of each one ounce and an half: fresh Oyl two ounces: make a Clyster to be given presently.*

Afterwards open the Liver Vein of the right or left Arm, and take away eight or nine ounces of blood, according to the strength and fulness of the Patient. Phlebotomy is very necessary to prevent Inflamation, which useth to come from continuance of pain.

After blood-letting, give this Clyster.

Take of *the flowers of Chamomel and Melilot, the tops of Dill, Pellitory of the wall and Rue, of each half a handful: Annis, Fennel, and Cummin seeds, of each half an ounce: Make a decoction to one pint; in which dissolve Diaphœnicon half an ounce: Turpentine dissolved with the Yolk of an Egg one ounce: Oyl of Dill and Scorpions, of each three ounces. Make a Clyster.*

To mollifie more, and asswage the pain after your Laxative, you may make one of Oyl thus:

Take of *Oyl of Dill and of Chamomel, of each half a pound: Oyl of sweet Almonds two ounces: Oyl of Rue one ounce: mix them for a Clyster.*

At the same time appply a Fomentation to the part pained, made of the Decoction of the first Clyster, with Annis seeds and Fennel seeds, Oyl and Water, with Spunges.

Take of *Oyl of Scorpions compounded two ounces: fresh Butter, Hens Grease, Oyl of Lillies, and of sweet Almonds, of each one ounce. Make a Liniment to be used after the Fomentation.*

Or this Cataplasm:

Take of *Mallows and Pellitory, of each two handfuls: Parsley with the Roots one handful: Rhadish Roots two ounces: boyl them soft and beat them: then add of Onions roasted, two: Oyl of Lillies, bitter Almonds, and sweet Butter, of each two ounces. Make a Cataplasm, which you must put between two thin linnen cloaths, and apply warm to the Belly, according to the length of the Ureters, and heat it as often as it grows cold.*

You may also apply one either made of Pellitory alone, or with Eggs fryed in a Pan with Oyl of Chamomel, bitter Almonds, Scorpions in a cloth.

Or make it of Onions shred and fryed with Hogs Grease, or the Oyls aforesaid, with five or six warm Eggs applied.

And because in this Disease, there is abundance of crude Humors, after Clysters (which must still be repeated as the pain cometh) you may give a purging Medicine, especially in form of a Bolus, lest it be easily vomited up, because these Patients are commonly squeazy stomached.

Take of *Cassia new drawn with Oyl of sweet Almonds one ounce: Diaphœnicon three drams: Pouder of Rhubarb one dram: with the pouder of Liquoris and Tragacanth, make a Bolus.*

If the Patient cannot swallow a Bolus, dissolve purging things in the Decoction of Mallows.

But you must diligently observe that you must not give a Purging Medicine before the pain be allayed. For when the pain is great, a strong Purge seldom works, because then all the parts contract themselves, and refuse to help the Medicine.

But at that time you may give a Vomit, by which the plenty of Humors may be abated, and a revulsion is made from the part affected; and often Nature of her self, when the pain is urgent, doth endeavor the same, and after it finds ease.

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A gentle Vomit which will alſo aſſwage pain, may be made thus:

Take of *warm Water four ounces: Sallet Oyl one ounce: ſimple Syrup of Vinegar one ounce and an half: Make a Vomit.*

If you will have a ſtronger, you muſt uſe Salt of Vitriol, or Mercurius vitæ, with which *Angelus Sala* ſaith, that he hath often cured this diſeaſe.

Before and after purging, you muſt give at the mouth, thoſe things which open the paſſages, and abate the pain: for which purpoſe the Syrup of Marſh-mallows preſcribed by *Fernelius* often given, is excellent. But becauſe it is not alwaies ready in the Shops, you may make it ſimply thus:

Take of *Marſh-mallows three ounces; boyl them to a pint: diſſolve in the ſtraining half a pound of Sugar. Let him take it often.*

This following Julep given often, is good to mollifie the Paſſages.

Take of *Barley one pugil: gray Peaſe half a pugil: Mallow and Marſh-mallow ſeeds, of each two drams: the four great cold ſeeds, of each one dram: fat Figs, eight: Sebeſtens, ſix: Liquoris half an ounce: boyl them to a pint and an half. Diſſolve in the ſtraining, Syrup of Maiden-hair four ounces. Give it at four draughts, twice or thrice in a day.*

Give for his ordinary drink, a decoction of Marſh-mallow Roots, one ounce and an half: Barley two pugils: Liquoris ſix drams, in five pints of water to a pint.

Or make Broths of Mallows, Marſh-mallows, and gray Peaſe, with much butter, and a little ſalt: or boyl the ſame in fat broth.

Or give Emulſions made of the four great cold ſeeds.

But Oyl of ſweet Almonds above all Medicines, doth mollifie and relax the Paſſages, and aſſwageth pain, if it be new drawn: give three or four ounces by its ſelf, or with white Wine, or a Decoction of Marſh-mallows, Liquoris, and gray Peaſe; or make a Potion of equal parts of Oyl of ſweet and bitter Almonds, becauſe bitter Almonds are good alſo to expel the Stone.

The day after you have opened the Arm, you may open the Ham or Ancle Vein on the ſame ſide, for that will derive the Humor, and the Patients find much eaſe thereby. Which Rule is given us by *Hippocrates*, 6. Epid. Part. 1. Aph. 6. and by *Ætius*, lib. 11. cap. 5.

And if the Diſeaſe laſt long, you may open the Hemorroids; according to *Hipp.* Aph. 11. Sect. 6. who ſaith, That it is good for Melancholick men, and ſuch as have the ſtone, to have their Hemorrhoids bleed. From the ſame branch of the Spleen there are Veins which go to the Reins, bladder, and Hemorrhoids.

If the pain be not aſſwaged by Fomentations, Liniments, and Cataplaſms aforeſaid, put him into a Bath made of the Emollient Decoction, with white Wine added, for it aſſwageth pain, at leaſt while the Patient ſits therein; but you muſt not uſe it much leaſt it take away ſtrength.

And laſtly, When the pain is very great with watching and weakneſs, you muſt give Narcoticks, and put two drams of Philonium Romanum, or five or ſix grains of Laudanum in a Clyſter, or three or four grains at the mouth, or one ounce of Syrup of Poppies in a convenient Julep.

After theſe Topicks have been uſed, in a long pain, it is good to apply a Plaiſter of Melilot, malaxed with Oyl of Chamomel and Dill.

This pain uſeth to be bred with ſome of theſe Medicines, and with repeating Purges (if they be needful) or giving Caſſia often. But if after the uſe of them it continue, it is moſt certain that they are great ſtones which ſtop the Ureters, which muſt be ſent out by Diureticks, which will break them. But you muſt firſt begin with the mildeſt, leſt by ſtrong and ſharp you inflame the Blood and the Reins. And you muſt conſider the habit of the Body: For a full Body will endure things that do more pierce and make thin; but a ſlender, leſs.

There are abundance of this kind in Authors, that diminiſh, break, and expel the ſtone, but we wil give you only the moſt choyce.

Take of *Smallage, Parſley, Butchers Broom, Couch-graſs, and Sparagus Roots, of each one ounce: Mallow and Marſh-mallow Roots, of each half an ounce: Pellitory of the wall two handfuls: Annis, Fennel, Dill, Caraway, Carrot, Amye, Carthamus, Cummin, Rue ſeeds, and Bay-berries, of each two drams: Chamomel, Melilot, Dill, and French Lavender, of each one pugil: boyl them in white Wine to the conſumption of half. Diſſolve in the ſtraining, being one pint, freſh Butter four ounces; Honey of Roſes two ounces; red Sugar one ounce; Benedicta Laxativa half an ounce; one Yolk of an Egg; Oyl of Nuts, Lin-ſeed, and Dill, of each three ounces: mix them for a Clyſter, which let him keep two hours, if he can.*

Take of *Strawberry Water, and Saxifrage Water, of each two ounces: the beſt white Wine ſix ounces: Oyl of ſweet Almonds two ounces: Spirit of Vitriol one dram: mix them for three doſes. Give the firſt as hot as may be endured; after ſix hours give the ſecond as the former; and if this will not do (as it ſeldom miſſeth) let him take the third.*

You may ſooner make a Julep of Saxifrage Water, and Syrup of Violets, with fifteen or twenty drops of Spirit of Vitriol.

Take of *the Juyce of Pellitory drawn without fire three ounces: Juyce of Lemmons, and Oyl of sweet Almonds drawn without fire, of each one ounce and an half. Mix them for a Julep to be given three or four times morning and evening.* Or,

Take of *the Juyce of Lemmons and white Wine, of each two ounces: Sugar candy half a dram. Take it instead of the Julep.*

Concerning Juyce of Lemmons you must note, That it must be used warily, for being given often and much, it maketh Exulcerations in the Stomach, from whence cometh the Flux called *Lienteria.*

These Pills following are excellent:

Take of *Sal prunella, Crystal of Tartar, Salt of Ivy Berries, and of Water-cresses, of each equal parts: with some proper Syrup or Turpentine, make a Mass of Pills; of which give one dram every morning.*

This following pouder of *Quercetan* is much commended.

Take of *the inward skin of Hens Gizzards, and their white Dung, of each half an ounce: the inward skins of Egg-shels poudered, two ounces and an half: Rupture and Cinnamon, of each four scruples: Medlar stones two drams: Annis and Fennel seeds, of each one ounce: make them into very fine pouder, and give half a dram or a dram thereof in white Wine.*

The Ashes of burnt Egg-shels from half a dram to an ounce given in white Wine, doth powerfully expel the Stone that sticks in the passages of the Ureters.

Goats blood prepared is commended of all Authors, old and modern, as the best Medicine to dissolve the stone. The Dose is from half a dram to a dram.

The Water of Goats Blood distilled in a Glass in Balneo Mariæ, doth wonders. But you must feed the Goat one month with Saxifrage, burnt Juniper berries, Parsley, and other Diuretick, without Drink.

Hartman commends the Urine of a Goat in these words as a wonderful Remedy: *In the stoppage of the Reins by a great stone, or when the Ureters and Bladder are stopped by stones sent thither, so that one drop cannot be voided, it is excellent if you take the Urine of a Goat taken out with his Bladder while he is yet alive, and drink and apply his Paunch and Guts to the Belly and Privities, for so the stone will be presently consumed without hurt to the Vessels, and the Patient cured.*

The Pouder of Millepedum, or Sows, is excellent to dissolve the stone, and we will teach the use thereof in the stone of the Bladder.

Also the infusion of the same in white Wine, and continued

There is a Wine of Winter Cherries commended of *Arnoldus Villanovanus*, and they say it doth so bring forth the matter of the stone that you may take it up in your hand. And this is done by beating the Winter Cherries in white Wine, and giving the strained Liquor.

These also following are good:

Take of *Lapis Judaicus, or Jews stone, Pulvis Lithontribi Justini, of each one dram: Peach Kernels, Gum Tragacanth, and Cherry-stone Kernels, of each half a dram: bring them to Pouder, and with Turpentine make a Bolus, which give in three Doses morning and evening.*

Take of *Horse-Rhadish scraped two ounces: white Wine four ounces: steep them a few hours; then strain them strongly. Let the Patient take the straining twice or thrice, at convenient hours.*

Savin Water given to an ounce or two, doth purge stones and gravel.

Take of *Mallow Roots clensed in white Wine, six ounces: Burdock and Couch-grass Roots, of each four ounces: Asarum, Parsley, Valerian, and Fennel Roots bruised, of each two ounces: Maiden-hair, Saxifrage, Burnet, Golden rod, and Betony, of each four handfuls: Bazil, Burdock, Carduus, Mountain Osier seeds, Medlar stones, and Peach stones, of each one ounce: Gromwel seeds two ounces: Lapidis Lyncis, and Judaici, of each one ounce and an half: Turpentine three ounces: Goats Blood prepared two ounces and an half: Saffron two drams: white Wine four pints: bruise them that must, and mix them all; distil them in* Balneo Mariæ. *Take two ounces of this Water three hours before Supper, drinking after four ounces of white Wine.*

Take of *the bark of the Roots of Carduus Asininus one ounce: Liquoris two drams: boyl them to six ounces: let him take the straining many daies. It doth wonderfully clense Stone and Gravel.*

Take *four pounds of shred Onions that are white; two pound of Sugar; one pint and an half of white Wine: distil them in* Balneo Mariæ *till they are dry. Give every morning two or three ounces for many daies together.*

The Ashes of a Scorpion is commended by Practitioners, if you take one scruple at a time, with Water of Couch-grass, Pellitory, or white Wine; but it is seldom used.

Mathiolus his Oyl of Scorpions is more in use; a dram taken at the Mouth with the aforesaid Liquors.

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The Chymists brag much of their Salts: among which the best is, Salt of Bean Cods, or Stalks, half a dram whereof, with white Wine works very well. And also Tartar vitriolate in the same quantity, They commend also Spirit of Salt, Vitriol, Mercurius dulcis, with their proper Vehicles or Liquors.

Outwardly you may help the Stone, if you continually chase the Reins and Ureters with warm hands anointed with Oyl of Scorpions.

Also many Cupping-glasses from the Kidney affected downwards, applyed without Scarification.

Then anoint the Part with *Mathiolus* his Oyl of Scorpions; to which add a little pouder of Cantharides. Or make a Liniment of Oyl of Wax, Bricks, and Scorpions, of each equal parts; it is very piercing and good, if you fear no inflamation of the Reins.

You must observe in the use of Medicines to break and expel the stone, That they must not be used twice or thrice, but often, till the passages stopt are open; and while you give them, you must cherish the Reins and Bladder with Baths, Fomentations, Oyntments, and Cataplasms, that the other may work the better. And you must give thin Liquor, as white Wine, often; and use inward Emollients, Looseners, and Openers, to enlarge the Passages, and temper the sharpness of other Medicines.

By these Remedies the pain of the Reins is cured, and stone dissolved and expelled. But because they who are diposed to this Disease, and cured, do often relapse: therefore we must appoint some Preservatives that we may hinder it as much as may be.

And first, if there be a Plethora or fulness, or the Reins and Liver hot, it is good to open a Vein, Spring and Fall, a Clyster or gentle Purge being first given: And then to purge the Matter away which is proper to breed the stone before it come to the Kidneys, which you may do by a Vomit twice or thrice in a month, to those which easily vomit.

Or you may give a Purge by a Bolus of Cassia, Diaphœnicon, and Rhubarb, prescribed in the Cure, or some other convenient Medicine every month; or two or three, according to the habit of the Patient, and the plenty of Humors, and that in the last quarter of the Moon.

Or if there be evil Humors, they must be purged Spring and Fall with a convenient Apozeme: for by that, not only the Antecedent and remote cause wil be taken away; but also some part of the conjunct cause; as also the Obstructions of the Bowels, which usually accompany this disease, wil be taken away, if you mix therein clensing and cutting Medicines.

Or instead of the Apozeme, you may use the Decoction of an old Cock made thus:

Take of *Polypody of the Oak, Carthamus seeds, of each one ounce and an half: Thyme and Epithimum, of each one pugil: Cummin, Annis, Dill, Fennel, Caraway, and Cardius seeds, of each two drams: Senna one ounce and an half: Gummy Turbith half an ounce: Cinnamon one dram: Crystal of Tartar two drams: beat them and mix them together, and put them into the belly of an old Cock; and then boyl them till the flesh come from his bones. Let him take the Broth being strained, at four mornings draughts.*

Or you may give this following Pouder commended of *Solenander*, by the use whereof he testifieth, that he cured many of the pain of the Reins, giving it in the fit.

Take of *Senna two ounces: the best Rhubarb half a dram: Turbith one dram and an half: Hermodatts two scruples: Polypody half a dram: Cinnamon, Ginger, Gromwel seeds, Saxifrage, Broom seeds, of each one dram; pouder them finely. Give one dram, or a dram and an half in white or thin red Wine, once in a month.*

Carolus Piso doth extol this following Pouder:

Take of *Annis, Fennel, Caraway, and Cummin seeds, of each one dram: Coriander prepared half a dram: Liquoris and Burdock seeds, of each one dram and an half: Cinnamon and Galangal, of each one scruple: Gromwel and Broom seeds, of each half a dram: Diatragacanth frigid two drams: Diagridium one scruple: Senna as much as all the rest: make a Pouder. The Dose is one dram, with the Broth of gray Pease.*

Or you may make a Magistral Syrup thus:

Take of *Sparagus, Couch-grass, Marsh-mallow, Knee-holm, and Parsley Roots, of each one ounce: Bettony, Burnet, Saxifrage, and Pellitory of the Wall, Maiden-hair, of each one handful: Bazil, Parsley, Gromwel, Broom, and Burdock, and Mountain Osier seeds, of each two drams: Liquoris, Raisons, and Polypody of the Oak, of each one ounce: Make a Decoction to one pint and an half. Infuse in the straining, four ounces of Senna: white Agarick two ounces: Ginger two scruples: boyl them a little, and strain them: after dissolve in it one pound of white Sugar. Boyl it up to a Syrup, and give thereof two ounces once or twice in a month, with the Decoction of Barley, Couch-grass, and Gray Pease.*

Or if the Body be very foul, make Pils of Aloes and Agarick, and give two or three of them every other day before Dinner.

After Purging, give Diureticks, to bring forth the slimy Matter, and Sand that is about the Ureters.

For this end, make Decoctions of the Diureticks mentioned in the Magistral Syrup, with Sugar, into the form of a Julep, or Apozeme. Or Chicken, Goat, or Mutton Broth, to be taken many daies together after general Evacuations.

Also after every Purge, take some of these following, once or twice in a week.

Take of *the stalks and flowers of Beans three pound: Calcitrap one pound: beat them, and add one pound of Sugar candy; the Juyce of Lemmons one pint and an half: the Juyce of Oranges half a pound: the Decoction of Mallows, and Marsh-mallows wel strained two pound: Honey one pint: Distil them with a gentle fire, and let them not be burnt, nor the Liquor wholly consumed. Let the Patient take four ounces of this Water every morning.*

Take of *the stones of Medlars, and the pouder of Diatragacanth frigid, of each one ounce: dried Rest-harrow Roots, Liquoris, Melone and Gromwel seeds, of each two drams: Saxifrage, Broom, Rhadish, Knee-holly, Calcitrap seeds, of each one dram: Marsh-mallow and Sparagus seeds, of each one scruple: Sugar candy two ounces: make a Pouder. Of this let him take one spoonful thrice in a month in the morning, about New moon, Full moon, and Wain, drinking after a little white Wine, or red Pease broth, Sea-holly, and Liquoris, exercising after it.*

Carolus Piso highly commends this following Pouder, which he gave with his purging Pouder before mentioned, and took away many boxes of smal stones from a President of *Lorrain*.

Take of *Marsh-mallow and Violet seeds, of each half a scruple: Gromwel seeds, and Liquoris, of each one scruple: the Jews stone, and Spunge stone, of each six grains: the pouder of Dates, Medlar, and Cherry stones, of each two scruples: Melone Seeds three drams: make a Pouder. Give one dram with unleavened bread dipt in white Wine three daies together of the New moon, and let him drink red Pease broth after it, wherein the Roots of Marsh-mallows, Fennel, Sea-holly, Rest-harrow, and Parsley, and Juniper berries bruised have been boyled, adding a little white Wine, Honey, Butter, and Juyce of Lemmons.*

This following Electuary prescribed by *Zappata*, is excellent.

Take of *the Seeds of St. Johns-wort dried, and finely poudered, three ounces: Conserve of Roses or Violets one pound: mix them into an Electuary, of which let the Patient take half an ounce every morning three hours before meat the first two weeks two daies together; and after for fifteen daies once in a week; and after that once in a month, or oftener, according as the Disease requireth.*

Conserve of Roses, is better than Violets, because it correcteth the scent of the Turpentine which comes forth of the Seeds of St. Johns wort beaten. But Violets agrees best with the Reins.

These following Lozenges are very safe, and most excellent.

Take of *the four great cold seeds, and of Liquoris, all clensed one scruple: Burnet, Bazil, Parsley seeds, and Nutmeg, of each half a dram: Aromaticum Rosatum two scruples: Sugar dissolved in Winter Cherry Water, four ounces: make Lozenges of three drams in weight. Let him take one in the morning three hours before meat, drinking after it four ounces of Rest-harrow, or Rupture-wort Water, with two ounces of white Wine.*

The Wine of Winter Cherries described in the Cure, if it be drunk somtimes, doth take away the Matter that breeds the Stone, saith *Villanovanus*.

In the use of all Diureticks observe this, They must not be used too often because they draw to the part affected; there once or twice in a month, or somtimes seldomer, is sufficient, purging before, lest the Humors of other parts should be carried to the Reins.

Turpentine may be used oftener: for *Amatus Lusitanus* in Curat. 68. Cent. 2. reports of a Monk that had the Joynt-gout, and the Stone both, and could find help by nothing; at length by the use of Turpentine he was cured within six months of them both. Every morning he swallowed the quantity of a smal Nut with Sugar. And the reason why Turpentine often used doth not hurt as other Diureticks, in my Judgment is this; Because it looseneth the Belly withal; so that those gross Humors, which by other Medicines would be carried to the Reins, are sent out by stool.

But commonly Turpentine is used seldom, as other Diureticks, either alone, or with other Medicines, thus:

Take of *Turpentine ten times washed in Saxifrage or Pellitory Water, half an ounce: With Sugar make a Bolus.* Or,

Take of *Cassia newly drawn six drams: Turpentine half an ounce: Pouder of Liquoris two drams: mix them for a Bolus.* Or,

Take *half an ounce of Turpentine, and one dram of poudered Rhubarb: mix them for a Bolus.* Or,

Take *Four ounces of Turpentine, burn it upon a hot Iron that it may pouder, and give two drams with convenient Liquor.* Or,

Take

Take *Turpentine half an ounce: Pouder againſt the Stone, called* Pulvis Lithontribus, *two drams: mix it for a Bolus.*

Zacutus Luſitanus, Obſer. 58. lib. 2. Praxis admir. doth much commend Natural Ballom for expelling ſtones, and that a man of three ſcore yeers of age that had his Water ſtopped eighteen daies with ſtones, was cured thereby. Firſt he took ſome drops of it with Oyl of ſweet Almonds, encreaſing the quantity of both till he came to half an ounce of Ballom, and three ounces of Oyl of ſweet Almonds, within ten daies he voided ſix ſtones; and afterwards he was preſerved by the ſame Medicine, by taking in a morning half an ounce of Oyl of ſweet Almonds, and ſix drops of Ballom, by which means he made a Sandy Urine, and lived long. If you want Eaſtern Ballom, you may take that of *Peru*.

The ſame *Zacutus* in the ſame Obſervation, doth commend Tobacco Water, in theſe words: *I remember* (ſaith he) *that I took away many great ſtones faſtened in the hollow of the Reins, with diſtilled green Tobacco Water. If you want that, then uſe the Decoction.*

Moſt wise *Varandæus*, my Maſter, commends the Waters of ſome Baths, Balervacan, or Bituminous for Preſervatives againſt the Stone, of which we have ſeen rare effects. We add his words: *There is* (ſaith he) *no better Medicine after Purging, than the drinking of Balervacan Waters; for by the heat which comes from the Bitumen, they diſſolve groſs humors and ſtones, and by their Nitrous quality they cleanſe, and by their great quantity, do not only cleanſe the Guts, but Reins; ſo that it is incredible to tel what abundance of thick Water ſome have made after it. But when we fear the Inflamation of the Guts, we ordered them to abſtain from Wine, and gave them Chicken Broth with cold Herbs and Juleps. Therefore we put fat Flegmatick men into them once a day in the morning, having firſt anointed their Reins and Liver with ſome proper Oyntment, and bound them with doubled linnen cloaths, that the Excrements might be received from the Pores opened. And if their Bowels grow hot, they may after uſe ſweet Water Baths that cool and moiſten.*

Sharp Mineral Waters, or Vitriol, are alſo good to prevent, for they do not only diſſolve the ſlimy Tartarous Matter that breeds the Stone, but correct the hot diſtemper of the Liver and Reins, and therefore in hot diſtempers theſe are beſt.

And becauſe hot Bodies are hurt by hot things, we will preſcribe more temperate; as Bean and Rupture-wort Water, and Lemmon Water diſtilled. Slice them and diſtil them in Balneo Mariæ. And for their better cooling, ſtill them with Milk.

The Conſerve of Hipps, is Diuretick and cooling, and is commended by *Crato* in this caſe alſo.

The Conſerve of Marſh-mallow and Mallow flowers, which by mollifying and moiſtening helps the ſtones to come forth.

The inſpiſſate Juyce of Purſlain made into Pills, and given one dram at a time, doth powerfully cleanſe the Reins.

The dried Flowers of Pomegranates in one dram, doth purge the Matter cauſing the Stone.

And the like Quantity of the Dryed Spunge of white Thiſtle, given in like quantity, is excellent.

Freſh Butter with as much Sugar candy taken every morning faſting, doth cleanſe the Paſſages of the Urine, and hinder the breeding of the Stone.

Bitter Almonds taken ten or twelve in a morning, do the ſame.

Filberts alſo taken before meat, are commended by *Crato*, who ſaies that he found by Experience, that many long affected with the pain of the Reins, were cured by them. Which *Amatus Luſitanus* Curat. 78. Cent. 7. wiſely confirmeth, where he thus ſaith: *A man that had the pain of his back, and piſſed often red hairs, complained of his Loyns and Guts, for which he had took many things in vain; but contrary to all hope he was cured with eating of Filberts. For one counſelled him that if he would be cured, he ſhould eat Filberts with their inward Husk before Dinner and Supper. But he conſidering the Innocency of the Medicine, eat them at meat, and after alſo: by which he was cured perfectly, and his pain never returned.* *Amatus Luſitanus* in his Notes, adds this: *That not only that man, but many others have been cured thereby. Theſe are thoſe vulgar Nuts that* Avicen *reckons among the Medicines that conſume the Stone. But the queſtion is, by what faculty they work? whether by the dryneſs of the inward skin? But ſome ſay that they work by their Oyly quality.*

The Chymiſts commend the Spirit of Salt, and give ſome drops thereof in a morning with Broth, or other Liquor.

Zechius commends boyled Water given warm, the quantity of ſix or ſeven ounces, once or twice in a day, before meat. For it cleanſeth the Reins, and extinguiſheth the heat, ſo that they cannot after breed ſtones.

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Let his Drink be thin Wine, with the Decoction of Sea-holly. This *Crato* commends. And we have seen excellent effects thereby.

Sowr Wine called in French, *Unies*, drunk often, doth so much good, that some have Vinyards of those Grapes on purpose.

To correct the hot distemper of the Reins, is the best Preservative, by such things as are mentioned in the hot distemper of the Liver. For they help the Reins and the Liver, from whence many times they are distempered.

Among the rest, Whey drunken in Summer, a whol month together, is the best. And sharp Mineral and Vitriol Waters, to cool al the Bowels.

You may apply this following Epithem often to the Reins.

Take of *Lettice, Water-lilly, and Rose Water, of each three ounces: Rose Vinegar two ounces: Apply them very warm morning and evening.*

This following Liniment is good, especially in Winter.

Take of *the Oyl of Roses, Water Lillies, and Violets, washed in Vinegar and Rose Water, of each one ounce: the Mucilage of Marsh-mallows drawn in Pellitory Water, six drams: Wax, a little. Make a Liniment for the Reins morning and evening.*

The extraordinary heat of the Reins, is allayed with a plate of Lead, alwaies warm.

And lastly, Because the Crudities of the Stomach do breed the Stone, you must have an eye to that, and strengthen it with such things as are prescribed in the Chapter of the Weakness thereof.

Chap. 2. *Of the Stone in the Bladder.*

ALthough we should speak of these Diseases of the Reins in order, yet because the Stone in the Kidneys and Bladder are of the same Nature, and what hath been said of the one, may agree with the other, we shal speak next of the Stone in the Bladder.

The Material and Efficient Cause is the same of both: only this Difference there is; That Children are most subject to the Stone in the Bladder, and Men to that in the Kidneys. The Reason of which, is given by *Galen*, 6. Epid. Sect. 3. because thickness of Urine, which Children often have by Reason of their gluttony, is dissolved by their gentle heat; neither doth it stay in the Reins by the help of the Expulsive Faculty of the Reins, which is stronger in that age; but being fallen into the Bladder, there it staies longer, because children given to play and sleep, piss more seldom. Moreover, their Urine is not so sharp, neither doth it provoke the expulsive faculty of the Bladder, while the quantity is burdensom, and so the dregs remain because the Passage is very narrow; besides, the bladder being stretched by the plenty of Urine cannot so exactly contract it self to empty out all the Urine, but some remains in the bottom, which is thick, and fit to breed the Stone. On the contrary, old men do often piss forth that Matter which is in the bladder, and their passage is larger; but the thick humor remains in the Reins, because it is clammy, and cannot be dissolved by their weak heat, or strain through by reason of its dryness. Hence *Hippocrates in Coacis*, saith that the Stone in the bladder is not bred after fourteen yeers of age, to three score, except it was there before.

Fernelius mentioned a new Opinion of the Stone, breeding in the Bladder, saying, That every stone in the bladder, had its beginning from the Kidneys, and grows afterwards in the bladder: For when in a fit of the stone, it fals from the Reins, if it be great, it staies in the Bladder, and by getting new Matter it encreaseth by degrees. For he affirmeth that in grinding of some stones taken out of the Bladder, he found as it were a Kernel which fel from the Reins of another color and substance, and that he never knew any that had a stone in the bladder, who was not formerly vexed with pains in the Reins. But this Opinion is cast off by divers very good Authors, who by their Experience have found the contrary, and have taken many stones from the bladders of children, which have been wholly of the same color and substance within. And common Experience teacheth us, that Children have the Stone in the Bladder, who never had pain in the Reins, which would be otherwise if the stone came first from the Reins. It is true, that in men many times stones fall from the Kidneys into the Bladder, and encrease by the addition of new Matter; but we deny that it is alwaies so, and we constantly affirm, that many stones have taken their beginning in the bladder.

The knowledg of the stone in the bladder is difficult, especially in the beginning, when it is little; but when it is great it is evident. But we shall discover it as much as we can by Art.

The First Sign is, pain in the neck of the bladder, which is worse towards the end of pissing, and reacheth to the end of the Yard, like that which is in difficulty of Urine from Inflamation, called *Dysuria*, and it is scarcely at first distinguished from it, but when other signs appear.

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The Second Sign is, Itching in the Yard, which makes the Patient ſcratch it often.

The Third Sign is, Weight in the Peritonæum, or inward covering of the Guts, and all about the Pecten where the Hair groweth, with a heavy pain, when the ſtone is great.

The Fourth Sign is, When there is a great ſtone there is great ſtoppage of Urine, with pain like women in travel, and dropping of water, and often endeavoring to piſs.

The Fifth Sign is, Stoppage ſuddenly in time of piſſing, by reaſon of the ſtone falling to the Orifice of the Bladder.

The Sixth Sign is, Eaſier making Water lying upon the back, becauſe it puts the ſtone from the Orifice to the bottom of the bladder.

The Seventh Sign is, Often ſtanding of the Yard, which comes from ſtoppage of Urine, and of the Inflamation of the bladder by the ſtone rubbing againſt it.

The Eighth is, An often deſire to go to ſtool, which follows the deſire of piſſing, by reaſon of the conſent of the Sphincter Muſcles of the Anus and Bladder; for when one is provoked, the other is provoked, becauſe they have branches from the ſame Nerve.

The Ninth is, The Patient cannot reſt in a place, but ſhakes his Leggs, and if the ſtone be great he can ſcarce ſtand upright, ride, or walk in rough places; for then the mouth of the bladder is much afflicted with the ſtone.

The Tenth is, That the Patient is helped by no Remedy, but worſe commonly; for all Medicines that go through the paſſages of the Urine, either do bring new matter, and encreaſe the evil, or carry away the flegm, which being about the ſtone made it leſs offenſive, but being bare, doth grate the inward Tunicle of the bladder.

The Eleventh Sign is, When the Patient is in pain of the Reins, and after a fit uſeth to void ſtones which cauſed it, but now voideth none as formerly, it is a ſign that the ſtone cauſing the pain is ſent to the bladder, and there remains, where by degrees it encreaſeth, and cauſeth the aforelaid Symptomes. Therefore if any after ſuch pain, voids no ſtone, and after a time begins to be ſtopped from making urine, it is very probable that there is a ſtone in the bladder.

The Twelfth Sign is from *Hippocrates*, Aph. 79. Sect. 4. *They who make a ſandy Urine have a ſtone in the Bladder.* Which Aphoriſm hath troubled many Wits. *Galen* in his Commentary thereupon, ſaith, that it is manifeſtly lame, and defective, becauſe *Hippocrates* left out half of it; for whether the ſtone be in the Kidneys or Bladder alwaies the Urin is ſandy. And *Hippocrates* himſelf contradicts this Aphoriſm, *Lib. de internis Affectionibus*, where he reproveth the old Phyſitians that ſuppoſed ſand in the Urine to be the ſign of the Stone in the Bladder. *Cardanus* in his Comment upon the ſame Aphoriſm, ſaith, That he voided for thirty yeers, firſt red, then white ſand, every day in abundance without any ſuſpicion of the ſtone either of the Kidneys or Bladder; and he further ſaith, that there are ſcarce one in ten who doth not void Gravel, yet few there are that are troubled with the ſtone in the Kidneys, and fewer with that in the bladder. The Spaniards void much Gravel, and yet are not ſubject to the ſtone.

We diſtinguiſhed of ſand in the former Chapter, which may ſignifie the ſtone: But we ſaid it was an equivocal ſign. For that ſand is ſometimes ſent forth by the ſtrength of the expulſive faculty, and is not kept in the Kidneys and Bladder any while. And if this ſand did ſhew the ſtone more ſurely, yet it would never declare that of the Bladder only. And therefore that Aphoriſm, as the words are, is falſe.

Beverovitius and *Salmaſius*, have greatly contended about this Aphoriſm (both Learned men) and good to open dark Sentences) and they have written both whol Volums of the ſame. It is not our intention to ſtay long upon it, determining this one thing for an end of all Controverſies; That the Opinions of Authors, which at firſt ſeem contrary to Truth and dayly Experience, are alwaies to be taken in that ſence which is moſt conformable to Truth, although the words will not bear it, which in ſuch a caſe are to be thought to be added by ſimple fellows in the Tranſlation, or the whol Sentence to be put in by them; as *Galen* ſaith often of ſome of *Hippocrates* his Sayings, That they are thruſt in by others, when they carry not the weight and Majeſty of *Hippocrates*. And the Opinion of *Beverovitius* concerning ſand in the Urine, ſeems not to be according to the mind of *Hippocrates*, nor to be of great uſe in Practice. Firſt, it ſeems not to agree with *Hippocrates*, who in his foregoing Aphoriſms, takes ſigns from things contained in the Urine; and following his matter in hand, ſaith, That Sand in the Urine, ſignifieth the ſtone of the Bladder. But *Beverovitius* inverts the Sence, and ſaith that *Hippocrates* is to be underſtood of Sand, which formerly uſed to be voided, that if they ſubſiſt, that is, be retained in the Bladder, and be no more ſent forth, it is a ſign that the Sand ſo retained is turned to a ſtone in the bladder. This Interpretation, as I ſaid, doth agree with *Hippocrates* his Intention, and it nothing avails for Practice: for they who uſe to void gravel, have ſome time of intermiſſion, in which there is not a ſtone bred in the Bladder. Nor hath it much weight that *Beverovitius* obſerveth, That *Hippocrates* in his other Aphoriſms, where he laies down the ſigns to be taken from the things contained in the Urine, doth not uſe the word *Subſidentia*, or ſet-

ling,

ling, or falling down; but the word Excretion, or voiding. As for example, they who piss matter or blood, with thick and branny Urine, &c. But here he useth the word that signifieth setling, to shew that he meaneth somthing else. But we bringing all things to Practice, say that *Hippocrates* in this Aphorism, could not use a word which signifieth only sending forth, or Excretion, because he ought to distinguish that sand which signifieth the Stone, from that which doth not. This Sand, as we said in the former Chapter, settles in the bottom of the Urinal; but other Sand doth only stick to the sides; and therefore *Hippocrates*, that he might distinguish them, said well, They whose sandy matter settleth; for others which do not settle, are not a sign of the stone in the bladder.

But that we may bring this Aphorism to Truth, and Practical use, we suppose that the Opinion of *Johannes Zechius*, is the best; who makes it a proper sign of the stone of the bladder, and there is great use of the Aphorism in Physical Practice, when by al other Interpreters. it is made unprofitable. And that *Zechius* may be honored by them who have not his Works, we think it worth our labor to repeat his words, which are in his Book of Consultation, 58. Consult. *Hippocrates* (saith he) *Aph. 79. Sect. 4. said thus, which was never understood yet, either by* Galen, *or any other. They whose Urine hath a sandy settling or sediment, have the stone in the bladder. Which Sentence, if we should take it according to* Galen, *would be false, because we observe that many men do piss sand all their lives (whereof I am one) without any suspicion of the stone in the bladder. From whence I cannot but wonder at* Galen, *and all the rest after him, that they should either not understand so useful an Aphorism (which I can scarce beleeve) or by reason of its ambiguity pass it by. The whol difficulty is in the signification of the word* [Sabulosa] *in Greek called Psammodea:* Hippocrates *would have nothing understood thereby but thick gravel mixed as it were with fat Earth like Clay or snot in the bottom of the Urinal; a certain sign of a great stone in the bladder. But because there is nothing constant in man, it is not to be admired that some that have this Disease have not this sign; as when the stone is smal, as we observed in Cardinal* Paleotus. *Now the cause of this muddy Excrement hath been shewed in another place.* So far *Zechius*; but where he shewed the cause of it we could never find. But we plainly shewed it in the former Chapter, when we said that this snot-like matter is the proper Excrement of the bladder distempered, when it cannot concoct the great quantity of blood, and superfluous humors which are sent thither, and turn them into its self, but turns them into that consistence like snot; and this evil disposition of the bladder comes from the stone therein. Let that be perused, for it maketh much for the understanding of what hath been said.

But there still remaineth one difficulty, for some have dayly flegmatick, slimy matter in their Urine, and yet are free from the stone in the bladder. And *Cardanus* reports of an Augustine Monk called *Leo*, that shewed him often so much congealed flegm in the bottom of the Chamber pot as was bigger than a Goose Egg, and yet he had not the Stone. To this doubt we answer, That the slimy matter that comes from the bladder, is to be distinguished from that which comes from other parts, because that which comes from the bladder, is more clammy and glutinous, so that it sticks fast to the bottom of the Pot or Urinal, and cannot be shaken off when the Urine is powred forth; but that which is from other parts doth not so cleave, but comes presently forth with the Urine; Experience hath taught me this, which hitherto no Author ever yet observed. This clammines comes from the Nature of the Bladder, which is a Membrane, and apt to produce this glewines, as you may see Glew is made of Membranous Skins of Beasts.

This tough glutinous Matter, I say, comes from the evil disposition of the bladder, which is caused by the stone there, and we can thus prove it besides what hath been said; Because we have known a Child of twelve yeers old, that had a stone in the Bladder, and pissed continually a glutinous matter that cleaved to the bottom of the Glass. And after the stone was cut forth, he voided the same for a month, but afterwards none at all. Which cleerly shews that that Matter comes from the evil disposition of the Bladder, which could not presently be cured after the cutting: but after the Bladder was cured, that matter appeared no more, which shews that it came from no other part but the bladder.

For a Conclusion of this, let us take notice, That whensoever this slimy matter appears with all the aforesaid conditions, there is a stone in the Bladder; but when it doth not appear, it doth not follow that there is no stone, for it often happeneth that the stone is smooth, or little, and so doth not hurt the bladder, and then the Urine is alwaies cleer. This is a true sign, that there is a stone when it appears; but when it is absent, it is not a sign of no stone.

Nor would this Objection, or rather Cavil, become a wise man, because from our Observation before mentioned, we proved that such matter might be voided by Urine, and yet no stone in the bladder, for it was cut forth. It is sufficient that either a Stone was lately there, which was the cause of this Disease; and so this kind of Matter signifieth, either a Stone there now, or lately hath been there.

The last sign is by tryal with the Catheter, and putting the finger into the Anus, which operation must

must be used to take away all doubt; for the most part it doth: for sometimes the Stone is covered with slimy matter, so that the Cutters themselves are deceived thereby. But the Catheter is more uncertain than the finger, by which you may not be certain of the Stones being there, but of the form and bigness of it.

As for the Prognostick of this Disease: It is alwaies painful and dangerous; painful, because only very smal stones can pass through the Neck of the Bladder.

The great ones, if like flint, cannot be dissolved; if soft like Chalk, or brittle, they may be dissolved with long use of powerful Medicines, which for the most part the Patients wil not stick to, and therfore they are seldom cured; therfore there is often cutting, which how terrible it is, dayly Experience wil declare, because many die under that Operation. Hence *Hippocrates* in his Oath, commands his Disciples that they use it not, but leave it to men of that Profession only. But in Women, the Operation is less dangerous, because their Passage for Urine is wider, and it may be done without cutting, only by enlarging the part.

The way of Cure is the same with that of the Kidneys, first Evacuation of the antecedent matter, Revulsion, and hindering of the breeding of it: and let the Matter conjunct, or the Stone it self, be diminished, worn away, or dissolved; for which there are good Medicines in the Chapter aforegoing.

Of which, the distilled Water of Onions is most excellent, by which continued twenty daies we saw a stone bigger than a Bean thrown out of the Bladder.

But the best Authors and Experience teach, That things taken at the mouth cannot dissolve the Stone in the Bladder. Hence it is that we commonly refer them to the Cutter. But because there are many stories of men cured by such Medicines, we wil speak of the chief, that every one may try them, if he please, before he go to the terrible Chyrurgion. Sometimes the Stone is so soft and newly congealed that it is not impossible to dissolve it; but hard flinty stones cannot.

Horatius Augenius, Tom. 2. Epist. Med. Lib. 9. Epist. 8. *I* (saith he) *have twice seen the stone broken in the Bladder. Once by chance I had the same of one* Janetus *a Printer at* Rome *in cure, whom I purged that he might be cut with more safety. For he had tried all the Venetian and Florentine Physitians. But when nothing did him good, he sent for the Priest to consult about his soul, and resolved to be cut. The Priest being a Jesuite, and hearing his Confession, and the condition of his Disease, told him a Medicine, of which he had made tryal in himself and others. He tryed, and was cured in the space of nine daies. The Medicine was this:*

Take of *the Pouder of Hog-lice or Sows, one dram, or four scruples at the most: Aqua vitæ half an ounce: red Pease Broth, nine or ten ounces. Let him take it five hours before dinner.*

I cured one of eighteen yeers of age, of a hot and dry complexion, by taking away some part of the Aqua vitæ, and gave it him but every other day, and at other daies of Bean and Strawberry Water, of each five ounces, with six drops of Oyl of Vitriol, and one ounce of the Julep of Violets to cool him, thus:

Take of *the pouder of Sows prepared, one scruple: Aqua vitæ two scruples: red Pease Broth eight ounces. Mix them, and give it six hours before meat.* Thus *Augenius.*

Sennertus in his Chapter of the Stone in the Bladder, tels a famous story of *William Lauremberg*, Professor of *Rostock*, who being old, and troubled with the stone, was unwilling to be cut, and therfore sought for other Remedies. First he tried the famous Water against the Stone, which is so much prized by Princes, which is thus made:

Take of *Salt of white Tartar one ounce: Parsley Water one pint: Mix them, and strain them with a brown Paper; and with Orange peels make it yellow. He used also the Indian Jewel, called in Spanish, Igiada, which is most famous for breaking the Stone; but both to no purpose. Therfore he desired to make tryal of the Medicine of Sows, which* Horatius Augenius *saith, cured two yong men.*

In imitation of whom, after general Physick, and good Diet, he took of Sows one scruple; the Spirit of Juniper two scruples; red Pease Broth ten ounces: which he took in the morning; but the first and second time he found a straightness in his Breast, and a fainting, so that he was constrained to take one dram of Treacle with the Potion; and so used it fifteen daies: but all this while he voided no gravel. And then he added other things, and made it thus:

Take of *prepared Sows two ounces: a Hares and Goats Blood prepared, wild Rose Flowers, and purple Violet seeds, of each one ounce: Species Lithontribi, two scruples: mix them for an Antidote, of which take two scruples: the Diuretick Decoction ten ounces: the Spirit of Juniper two scruples.*

Which Medicine after he had taken it the second time at five a clock in the morning, four hours after he felt a great pain under the *Os Pubis*, about the Neck of the Bladder: A little after he made a little Water, and therewith some thin red things like scales of fishes; which though they seemed to be slimy, yet when they were touched turned to sand. So that it plainly appeared that they were the outside of the Stone.

By the continuance of this Medicine, every fourth or fifth day he voided the like scales, and sometimes bigger pieces, especially when he used a sweet bath. But when the neck of the bladder was wounded by the fragments and the stone, he used Medicines to asswage pain; and by the use of these Medicines, was in seventeen months cured. The Decoction was.

Take of *Liquoris four scruples*: *Roots of Marsh-mallows, Couch-grass, Rest-harrow, of each half an ounce*: *Winter Cherries twenty*: *red Pease six ounces*: *Raisons one ounce*: *the four great cold Seeds, of each one scruple*: *Barley two handfuls. Boyl them in Winter Cherry Water, Rest-harrow, Strawberry, and Bean Flower Water, of each one pint and an half*: *to the straining add of the Syrup of Marsh-mallows four ounces.*

The Sows are thus prepared:

Take of *live Sows two pound*; *wash them in Rest-harrow Water*: *then drown them in Spanish Wine*; *then powr the Wine out, and put them in Glasses, the more Glasses the better, because then they will dry better*: *Put these Glasses well stopt into the Oven when the Bread is drawn, that they may dry gently till they will pouder*: *then put some Spanish Wine upon this Pouder, as much as it will take in, and dry it again*; *do so thrice*: *and fourthly wash it with this Liquor*:

Take of *Straw-berry Water three ounces*: *Spirit of Vitriol half a dram*: *mix them. Then dry it, and make it fine, and keep it in a Glass for your use.*

Besides the aforesaid, the use of the distilled Water of Goats blood, or of the Urin of a Goat newly slain, which was formerly mentioned in the Stone of the Kidneys.

If the Stone cannot be broken with Medicines, necessity requireth the manual operation, though it be dangerous, lest the Patient die with lingering pain. This requires a skilful and wel exercised Artist, and that it may have good success, as we have observed.

It is the Duty of the Physitian, before the operation to prepare the body by bleeding, purging, and diet, as the state of the business requireth. And observe, that the taking away of a stone from a Woman hath no danger, because it is done only by enlarging the Passage of the Urine, which in them is very short.

If the Patient fear cutting, or want a good Chyrurgion, he may use asswaging Medicines least the Stone should cut and ulcerate the neck of the bladder, such as are prescribed for heat of Urine.

But if a stone fastened in the neck of the bladder stop the Urine, it must be shaken back with lying upon the back with the leg up, and the body shaked; and then by a good fomentation or bath, and with a Catheter, let the stone be sent back into the bladder.

Chap. 3. *Of the Inflamation of the Reins and Bladder.*

BEcause the Inflamation of the Reins and Bladder are cured with the same Medicines, therefore we will put them in the same Chapter, although the Signs are different, as shall be shewed.

This Inflamation is a Tumor of those Parts, from the flowing of Blood or Choller unto them.

This is not very ordinary, because the substance of those parts is solid and thick; but sometimes it happeneth, because the Kidneys are fleshy and apt to receive blood: but the Bladder, though it be without blood, and spermatick, because it receives blood for its Nourishment through the smal Veins, is without question subject to Inflamation by too much blood; as other Membranes of the Braun, or Meninges, the Pleura, Mediastinum, and the like.

We said that these Inflamations come from Blood or Choller, as when Flegm or Melancholly in the Blood make the parts thicker, because they cannot pierce into their thick substance.

The Causes of this Disease, are either from things Natural, not Natural, or Preternatural.

From Natural things, when there is a Natural Infirmity of those parts from the Parents, or a great looseness of them, a great heat originally in them, by which they draw plenty of Humors: In Youth these conduce much to an Inflamation.

From things not Natural, as much Venery, which weakeneth those parts, and draws much blood or other Humors to them; Gluttony, Drunkenness, and eating of Salt and Spiced Meats; great Passions of the Mind, lying upon the back in a soft bed, great Exercise, stoppage of some great Evacuations, as of the Months and Hemorrhoids, or usual bleeding at the Nose, those things which cause repletion and evil concoction, and drive the humors to the inward bowels.

From Preternatural things, as a stroak or wound upon the Reins, or about the Bladder; a pressing or bruise of those parts; constant Feavers, foulness of the Vessels, or other parts that purge themselves

ſelves by Urine, as in a Pleuriſie, Empyema or impoſthume in the ſide, Obſtruction of the Spleen, breaking of the Melentery, and the like. And laſtly, Diſeaſes of thoſe parts do cauſe Inflamation, as the ſtone, great pain, exulceration, heat of Urine, and ſtoppage thereof, or the like.

The Signs of the Inflamation of the Reins, are a weighty pain in the Reins, ſomtimes beating, if the place be affected where the Arteries are: And this pain extendeth to the parts adjacent, ſo that the Patient can neither lift himſelf up, nor ſtand upon his feet, and ſcarce turn himſelf, and neither lie upon his ſide, nor his Belly, becauſe then the part inflamed will hang down; therefore he lies alwaies upon his back, and if he either neeze, or otherwiſe move his Body, the pain is encreated. He hath a numbneſs or pain in the Leg on the ſame ſide, by reaſon of the Nerve that goes from thence to it. He hath difficulty of piſſing by reaſon of the heat which is ſent to the Urine, and filth mixed with it coming from the inflamed part. The Urine is firſt thin and yellow, but after red and thick; he hath a conſtant ſharp Feaver, which is attended often with watchings, dotings, and other great Symptomes; alſo loathing and vomiting, by which he voids Choller, Flegm, and other Humors.

Somtimes the Gut Colon is inflamed, and if it be that part which is neer the Liver, it brings the like Symptomes: but here is the difference; In the Inflamation of the Reins, the pain reacheth to the ſhort Ribs, the Back, and Bladder; but that of the Colon tends more to the Belly, and there is a greater change of Excrements of the Belly, than in the Inflamation of the Kidneys.

But in the Inflamation of the Kidneys, there is a pain about the *Pubis* and *Perinæum*, in which there is heat, and ſomtimes redneſs. There is conſtant heat of Urine, but that is ſtopped when the part ſwelleth, and ſtoppeth the paſſage.

The ſtraight Gut ſuffers by reaſon of its neerneſs; hence it is that there is often deſire to go to ſtool with burning, ſomtimes the belly is bound, when the Gut is ſtopped by the inflamed Bladder. There are alſo other common Symptomes mentioned in the Inflamation of the Reins, as a Feaver, watching, doting, thirſt, and the like.

There can be no good Prognoſtick in this Diſeaſe: For the inward Inflamation of the noble inward parts, do threaten continual danger of death. It is moſt deadly when a Convulſion or dotage followeth, or the like great Symptome: and if there be a cold ſweat, death is at hand.

In the Inflamation of the Reins, if the Hemorrhoids follow, it is good.

If the Inflamation Suppurate, and the Impoſthume break, and go into the paſſages of the Urine, there is hope; but if it go by the Emulgent Veins into the Liver, and labor to get way through the Guts, it is dangerous.

A ſmal Inflamation of the Bladder with a Sediment in the Urine that is white and equal, promiſeth health.

An Inflamation of the bladder, is ſomtimes cured by an Eryſipelas, or Chollerick Humor ariſing in the Skin ſuddenly, and by making much Urine.

The Cure of both Inflamations of the Reins and Bladder, is made by revelling, deriving, cooling, and moderately repelling, by Anodines, Reſolvers or Ripeners, if need be, and the like: whoſe Matter and way of uſing, ſhall be as followeth:

And firſt, Phlebotomy is very neceſſary in the Liver Vein, on the ſame ſide the pain is, twice, thrice, or four times, or oftener, if the ſtrength will bear it, til the defluxion ceaſeth, which you may know by the abating of the pain. But in the Inflamation of the bladder, the right ſide is to be choſen by reaſon of the Liver, from whence, as from a Fountain, the blood floweth to the part.

After much blood is taken away, and revulſion is made by the upper Vein, you muſt alſo open the inferior for derivation ſake, in the Ham or Ancle; as alſo the Hemorrhoids are to be opened, eſpecially if they be ſwelled.

Cupping-glaſſes with Scarrification, are alſo good for Revulſion, both above and beneath, and Frictions with ſtrong Ligatures of the extream parts, to draw the humors outward.

After, and before blood-letting, give a mollifying and cooling Clyſter that is a little looſening, and let it be of a ſmal quantity, leſt it oppreſs the Tumor, thus made:

Take of *Marſh-mallow Roots one ounce*: *Mallows, Violets, Lettice, of each one handful*: *ſweet Prunes four pair*: *Barley and Violet Leaves, of each one pugil*: *make a Decoction to eight or ten ounces. In the ſtraining diſſolve of Caſſia, or Diaprunes ſimple, one ounce*: *Oyl of Violets four ounces*: *two Yolks of Eggs*: *Make a Clyſter.*

Allay the heat of the blood with Juleps and Emulſions made thus:

Take of *Endive, Lettice, and Purſlain Water, of each four ounces*: *Syrup of Pomegranates two ounces*: *Syrup of Water Lillies one ounce. Make a Julep for three draughts, morning and evening.* Or,

Take of *Sorrel Roots two ounces*: *Mallows, Plantane, Purſlain, and Endive, of each one handful*: *the tops of white Poppies half a handful*: *Annis and Lettice ſeed, of each one dram*: *Borrage, Violets, and Water-lilly Flowers, of each one pugil*: *boyl them to a pint and an half*: *then add four ounces of the juyce of Pomegranates.* Or,

Take of sweet Almonds blanched one ounce: fresh Pine-nuts half an ounce: Lettice, Sorrel, Purslain, and Poppy seeds, of each three drams: beat them according to art, powring on by degrees, of Barley, Lettice, and Purslain Water, one pint and an half. Dissolve in the straining, Sugar of Roses one ounce. Make an Emulsion for three Doses, in which we leave out the great cold Seeds, because being Diuretick they may draw somthing to those parts, especially in the time of the defluxion, but in the declination they may be useful. You may profitably add to the Emulsion, the Syrup of Poppies to stop the flux more violently.

Also the parts inflamed may be cooled by Clysters, made of the Decoction of the Julep aforesaid, with Oyl of Roses or Violets two ounces.

In the beginning of these Inflamations, purging is not proper; for it is to be feared lest the Humors being moved, should flow to the parts affected; so that if there then be a great flux of the Belly, it is to be stopped for that cause. But when the Inflamation is a little allayed, and the disease declineth, a Purge made of gentle things may be good, as of Manna, Cassia, Rhubarb, Tamarinds, Diaprunes simple, Catholicon and Syrup of Roses with a Decoction of Lettice, Purslain, and other cooling things prescribed in the Juleps. Or you may make a Bolus of some of them.

Outwardly, All the time of the Disease, you must apply cooling things that gently repel, as moist Epithems of the Water and Juyce of Plantane, Sorrel, Endive, Nightshade, Roses, with a little Vinegar, red Sanders, and Camphire. Liniments also of Oyl of Roses and Olives, Violets, Cerat of Sanders, white Oyntment, or Populeon alone, or mixed with a little Vinegar, which you must apply to the parts aforesaid, every hour cold.

Or you may make a Liniment of an Egg wel beaten, with a little Oyl and Rose Vinegar.

Or you may make that which is excellent, of Oyl of Roses, with Vinegar and Juyce of Knot-grass, or Purslain; to which add, if you please, a new Yolk of an Egg. Let these be applied cold upon a Cloth.

If the pain be very violent, it is not amiss in these Epithems and Liniments, to mix a little Opium or Saffron.

Also you may make a Cataplasm of Barley Meal, with Juyce of Endive, Purslain, and Nightshade, with Oyl of Roses and Populeon. But this must be often changed lest it grow hot.

Three things are to be diligently observed:

First, That you use not Coolers too long, lest the Matter be kept from breathing forth, and the Tumor grow hard or scirrhus.

Secondly, In the Inflamation of the Bladder, you must use less astringents and coolers, lest you stop the Urine, which Symptome alone, is very usual and dangerous in this case.

Thirdly, Cataplasms in the Inflamation of the Bladder, are less necessary than Oyntments and Liniments, because they burden the part, so that it is more hard to dilate it self.

After you have used Coolers a short space, and often bleeding, when the defluxion is somwhat stopped, you must use Softeners and Dissolvers; such are, Fomentations of the Decoction of Marshmallow Roots, Mallows, Violets, Pellitory, Lin-seed, Fœnugreek, Mallows, Cotton-weed, with Melilot, Chamomel, Rosemary flowers, and Rose Leaves to strengthen the part.

Then apply a Liniment of Oyl of Lillies, with a little Oyl of Chamomel.

Among the Dissolvers and Anodines together, there is none better than the Cataplasm made of Crums of Bread, made thus:

Take of *white Bread Crums one pound; boyl it in Goats Milk to a Pultiß: then add three Yolks of Eggs; four ounces of Oyl of Roses: half a scruple of Saffron: make a Cataplasm, change it often. You may add a little Opium and Camphire if the pain be very great.*

In the Inflamation of the Bladder, if you fear a Gangrene, you may make a strengthening Cataplasm of Bean Meal, and Orobus Meal, or Lupines boyled in Wine.

When the greatest part of the Inflamation is abated, then you must use Decoctions and Liniments which do only dissolve, that the reliques may be consumed.

In the whol time of the Cure, you must have a special care of great Symptomes, as the Feaver, pain, watching, stoppage of Urine, and belly; of the stomach and other parts.

And as for the Feaver, pain, and watchings, it is most certain that the things mentioned to evacuate and alter, do much for the mitigation of them. But to them you may add Epithems, Liniments, and Rose Vinegar, such as use to be applied to the Region of the Liver, Heart, and Brain; and in time of necessity, Narcoticks both by mouth and Clyster.

There are special Anodine Suppositories to take away the pain of the Bladder, or knots, made with Yolks of Eggs, and a little Opium, and juyce of Henbane, or the like.

If the Straugury or stoppage of Urine follow this Inflamation, you must cure them with Medicines taken from their proper Chapters.

If the Inflamation of the Reins cannot be cured by what hath been prescribed, but it tendeth to suppuration, which you may know by the encrease of the feaver, pain, and other Symptomes; as al-

so

ſo by trembling and vomiting, by greater weight about the part, eſpecially when the Patient lieth on his ſound ſide; you muſt help Nature with Cataplaſms of Roots and mollifying Herbs, Lineſeed, Chamomel flowers: To which being boyled and beaten, you muſt add Meal, Butter, Greaſe, or Oyls of the ſame vertues With which, if the Impoſthume break not preſently, and come forth by Urine, the Matter wil get into the Cavity of the Abdomen, whence wil proceed either ſudden death, or a Hectick Feaver. Sometimes the Tumor appears outwardly, and then you muſt open it either with a Potential Cautery, or an Inciſion Knife.

Sometimes thoſe Tumors grow hard, and ſcirrhus, when the Feaver is gone, and the pain remains with a greater ſence of weight, and a kind of numbneſs of the ſubject parts: And this is commonly incurable, and brings an evil habit, or a Dropſie. Yet you may try with mollifying, cutting, and digeſting Medicines, ſuch as were mentioned in the Scirrhus of the Liver.

Chap. 4. *Of Piſſing of Blood.*

BLood may come from divers parts to the paſſages of the Urine, and be mixed with it, and make it look like blood: but becauſe this happeneth but ſeldom, and we here treat only of the Diſeaſes of the Reins and Bladder, we ſhal ſpeak only of that bloody Urine which is made ſo from the defect of the Reins and Bladder. Blood flows from theſe parts, as from al the reſt (as we ſaid in Hæmorrhagy, Hæmoptyſis, vomiting of blood, and Hæmorrhoids) either by Anaſtomoſis, or opening of the mouths of the Veins, by Rixis, or Rupture, by Diabroſis or Corroſion, and ſeldom by Diapedeſis, or Rarefaction.

The uſual cauſes are much or ſharp blood, or a ſtone faſtened in the Reins: the Veins are often broken with plenty of blood; but Corroſion, or Anaſtomoſis, or opening comes from ſharpneſs: alſo corroſion or tearing may come from the ſtone, when being fixed in the Reins or Kidneys through violent riding, or other exerciſe, it is moved ſo that it hurts the parts with its roughneſs.

Alſo other cauſes may break the Veſſels beſides repletion, as a fal or ſtroak, lifting, carrying, vehement motion, and the like.

That blood which is brought forth by Urine from Plethory, is not alwaies a Diſeaſe or Symptome, but ſometimes for the good of the Patient, when Nature laies that which is burdenſom unto her by that means, as *Aretæus* reports that ſome piſs blood at ſeveral times, and when they do not, they have the Head-ach, miſts before their Eyes, and giddineſs.

Alſo the Bladder may bleed if it be wounded by a ſtone, or corroded by a ſharp humor; but it is but little, becauſe it is membranous, and without blood; but if the Sphincter Muſcle be hurt, or the paſſage of the Yard, there wil be much blood, as in extraordinary Venery is ſeen often, eſpecially when the *Proſtates* are inflamed by a Gonorrhœa, or running of the Reins.

The Signs of this Diſeaſe are from the Kind of it, from the Part affected, and from the Cauſe.

The Kind of this Diſeaſe is apparent to the Sences, for it is eaſie to know when blood is mixed with Urine, for it is like the waſhings of fleſh, with ſmal clodders at the bottom; ſometimes the Urine is like a Lye, when it ſtaies too long in the Bladder, by which means it grows black.

The place of the pain ſhews the part affected, for if it be in the Loyns, it ſignifies that the Kidneys are affected; but if it be in the belly below the Navel, the bladder is the part ſuffering. Moreover, if the blood comes from the Reins, it is mixed perfectly with the Urine; but if from the bladder, it is not mixed. *Hippocrates* ſheweth this Sign in two Aphoriſms, namely, in Aph. 78. Sect. 4. *They who ſuddenly piſs blood without force, have a Vein broken in their Reins*; and Aph. 80. of the ſame Section; *If men piſs blood, or there be clots or drops in the Urine, and pain in the lower part of the Belly, the Peſten, or Perinæum, theſe have their diſeaſe from the Bladder.*

If it come from the ſtone, the ſigns thereof which are mentioned in its proper Chapter, wil appear; if they do not, you muſt conclude that it comes from too much blood or ſharpneſs thereof. The abundance of blood wil be known by the ſigns of repletion, and ſharpneſs by the ſigns of Choller or Melancholly predominating; alſo ſalt flegm in the Urine wil make a great ſtoppage of Urine, and piſſing of blood; this hapneth often in old men that are very apt to be troubled with ſalt flegm. And the piſſing of blood from ſharp humors, is diſtinguiſhed from that in the ſtone, that in which there were firſt pains of the Reins, and voiding of ſtones; but not in the other whoſe Urine is cleer, with no ſtrange things therein, And the Diſeaſe proceeds not only from immoderate Exerciſe, which is ordinary to both cauſes, but alſo from the paſſions of the mind, when it comes from ſharp humors which are much ſtirred up by paſſions; ſo that they who are ſubject to this Diſeaſe after Anger and Sadneſs, or great diſturbance of the mind, uſe commonly to piſs blood.

As for the Prognoſtick. A plentiful and often piſſing of blood is very dangerous; for it wil bring either a Conſumption or a Dropſie: And if it continue long, it may cauſe an Ulcer in that part from whence

whence the blood floweth; if much blood flow at one time, it wil cause a great stoppage of Urine in the Bladder, or some other evil Symptomes, as it encreaseth therein, and grows evil qualified.

The Cure of this Disease is divers, according to the variety of the cause.

And first, if it come from blood abounding, or from sharpness, it must be first cured with Phlebotomy on the same side, often and little for the better revulsion: And by Cupping, Friction, and Ligatures in the upper parts; and if blood flow violently, Cupping-glasses must be applied to the Hypochondria.

For derivation, let the Vein of the Ancle be opened, and the Hemorrhoids.

When watery Chollerick Humors cause it, let them be purged with Medicines mentioned in spitting of blood, often repeated at distance. To which also you may add these following, at your discretion.

Take of *the Pouder of torrefied Rhubarb one dram: prepared Coral half a scruple: Goats Whey, or Plantane Water three ounces. Make a Potion.*

Take of *Cassia newly drawn half an ounce: the Pulp of Tamarinds six drams: Eastern Bole-armenick half a scruple. With Sugar make a Bolus.*

After due Evacuations and Revulsions, or at that time, if need require, you may use things to stop blood, and knit the Veins. And these are not presently to be used at the first, lest being stopped too suddenly it should grow cloddy in some part. For this purpose the Juyce of Plantane newly drawn, is much commended, given four or five ounces in a morning and evening, which is good for any kind of bleeding. But if you fear it will cool the Stomach too much, you may boyl it a little with Sugar.

Sheeps Milk is much commended by *Forestus*, Lib. 24. Observ. 13. *Often* (saith he) *I have cured pissing of blood with only Sheeps Milk six ounces, and one dram of Bole-armenick.* The same is an Experience of *Gatinaria*; who also commands that none do sleep presently, or exercise after it. Also *Hollerius* and *Duretus*, from *Avicen* and *Hippocrates*, commend the same.

Also Decoctions of Knot-grass, Horstail, Purslain, and Bramble tops, are good for this, adding the third part of the Juyce of sharp Pomegranates or Quinces.

Or to allay the heat of the Blood, let him take the Apozeme following many times, morning and evening.

Take of *Lettice, Purslain, Plantane, and Comphry, of each one handful: all the cold seeds, of each one dram: Jujubes three pair: Liquoris half an ounce: Water-lillies, Violets, and Roses, of each one pugil: boyl them to a pint and an half. In the straining dissolve of Gum Traganth one dram and an half: Syrup of Violets and dried Roses, of each one ounce and an half: Lapis prunellæ half an ounce: the Troches of Winter-cherries without Opium, half a dram. Make a Julep for four Doses.*

To thicken and stop the blood more, put one ounce of Syrup of Poppies thereto.

Also you may give the Pouders that stop blood, as of red Coral, Blood-stone, Bole-armenick, sealed Earth, either with the Apozeme, or with Rose or Plantane Water.

If the Disease continue, give this Opiate:

Take of *Conserve of Roses, and Comphry Roots, of each two ounces: Sealed Earth, Bole-armenick, Sanguis Draconis, red Coral, Blood-stone, and Troches of Amber, of each one dram: Hypocystis, or Conserve of Sloes, Kermes berries, and Plantane seeds, of each one scruple: with Syrup of Poppies and Myrtles, of each equal parts: make an Opiate, of which let him take the bigneß of a Chesnut morning and evening, drinking after a little Plantane Water.*

If it yet continue, it is good to give at distance the Decoction of Myrobalans in Whey, or the like.

Hollerius affirms, and *Duretus*, that the Troches of *Gordonius* are the best for it.

Christopher Vega commends the Troches of Amber given with Plantane Water, and saith that he cured this Disease with giving them only once at night.

For ordinary Drink, give the Infusion of Mastich wood in Wine, made thus:

Take of *sliced Mastich wood one ounce: spring Water four ounces: Infuse them in Balneo Mariæ very warm in a close Vessel. Keep the straining for your use.*

But because clods of blood are often retained in the bladder, which beget grievous Symptomes, give warm Water and Vinegar, or Mallow Water and sharp Vinegar warm. Let the Vinegar be so little that it is scarce tasted.

Apply Topicks to the Loyns that cool and astringe.

Take of *Snakeweed and Comphry Roots, of each one ounce: Plantane, Purslain, Horse-tail, Knot-grass, and Shepheards-purse, of each one handful: Pomegranate peels half an ounce: Sumach, and Myrtle berries, and Hypocystis, of each two drams: Acron Cups, red and yellow Sanders, of each one dram: red Roses three pugils: boyl them in Smiths Water, and a little Vinegar. With the straining, let the Reins be fomented hot.*

Of

Of the ſame Decoction you may make a Bath to ſit in, adding more ſimples.

Take of *Unguentum Comitiſſæ, and refrigerans* Galeni, *of each one ounce and an half: waſh it with Oxycrate, and anoint the Loyns therewith.* Or to bind more,

Take of *the Juyce of Plantane and Blood-wort, of each two ounces: Vinegar half an ounce: Oyl Olive ſix ounces: boyl them till the Juyces be conſumed: then add of Sanguis Draconis, Maſtich, and Pomegranate peels, of each two drams: Camphire half a dram: Unguentum Comitiſſæ four drams: Wax as much as will make a Liniment: put a little Vinegar to it when you uſe it.*

Alſo a Plate of Lead ful of holes worn about the Reins, is good.

You muſt guard the Liver when it comes from ſharp Humors, with Epithems, and Oyntments.

When it comes from the Stone and Gravel; after Purging, Revulſion, and things that allay ſharpneſs, mentioned; you muſt uſe thoſe things that may gently cleanſe, as theſe that follow:

Take of *Pills of Turpentine, with Rhubarb one ounce: give half a dram in a morning, with two ſpoonfuls of Syrup of Scurvy-graſs every other day.*

But when he takes them not, give this Pouder and Confection following:

Take of *Liquoris two drams: the four cold Seeds, of each one dram: Purſlain and Lettice ſeed, of each half a dram: the Troches of Amber and burnt Harts-horn prepared, of each one ſcruple: Sugar as much as all the reſt; make a fine Pouder: give one dram with Mallows water in which Quince ſeeds have been infuſed.*

Take of *blanched Almonds, and Pine ſeeds cleanſed, of each half a dram: Marſh-mallow ſeeds, and Winter Cherries, of each one ſcruple: Lettice and white Poppy ſeeds, of each half a ſcruple: Starch and Tragacanth, of each half a dram: Liquoris two drams: Sugar ſix ounces: With Pellitory Water make a Confection in Morſels. Take it morning and evening half an ounce.*

Stronger Diureticks are not convenient, for they wil provoke the flux.

And laſtly, Vitriol Waters are good to ſtop blood, cool the Reins, and expel ſtones.

Chap. 5. *Of the Ulcer of the Reins and Bladder.*

THe Ulcer of the Reins and Bladder, comes of three Cauſes; from an Impoſthume broken after Suppuration; from the ſharpneſs of Humors, ſuch as cauſeth piſſing of blood, which being violent and continual, doth ulcerate the parts, or from a ſharp ſtone that corrodeth them; the laſt is moſt uſual, the former ſeldom.

Among the Signs, the chief is voiding of Matter with Urine, which laſting long, doth ſhew that there is an Ulcer certainly in the Ureters. But whether the Reins, or the Bladder be affected, is known by the place of pain, whether it be in the Loyns, or neer the Privities. Moreover, If Matter come from the Reins, it is better concocted, white, thin, and not ſtinking, becauſe the body of the Kidneys being fleſhy doth better concoct; beſides, the Matter is more abundant, and more mixed with the Urine, which is voided like Milk, till after long ſtanding it ſettle to the bottom. That Matter which comes from the Bladder, is little, and not much mixed with the Urine, not ſo wel concocted, but crude, of divers colors, and ſtinking; for that part being without blood, and having little heat, cannot concoct ſufficiently. But often pure Matter is voided without Urine, from the neck of the Bladder, and then there is a continual difficulty of Urine, and pain in that part, which is not in an Ulcer of the Reins but by fits.

When the Ulcer is in the Reins, ſomtimes much Blood is voided, which is hard to be ſtopped, and ſomtimes pieces of fleſh and matter, or blood, ſomtimes ſo big as they hardly paſs, and cauſe pain; but from the bladder come ſcales, or skins, or bran.

And from an old Ulcer of the Bladder that is callous or hard, there flows that ſnotty flegm which we ſpake of in the ſtone of the Bladder.

As for the Prognoſtick: All inward Ulcers are dangerous, but theſe moſt, becauſe of the conſtant flux of Humors to theſe parts; for although the ſerous humor hath a cleanſing quality; yet here being mixed with other qualities, it doth not as in its Natural condition; and if evil, ſalt, and ſharp humors are mixed therewith, they will make and nouriſh an Ulcer.

New Ulcers of the Reins and Bladder are curable, old not.

They are incurable in old men, ſomtimes incurable in yong men, with much difficulty.

Ulcers that come from the Stone, and are maintained by it, cannot be cured before it be taken out.

The pain and Symptomes which accompany the aforeſaid Ulcers, cauſe watchings, and conſume the Body.

The Cure is by clenſing drying, and heating, as al other. For this purpoſe uſe theſe following.

Firſt, If there be a repletion, or inflamation in the part affected, let blood, firſt in the Arm, then in the Hand.

Then purge often, to take away the vicious humors that flow to the part affected, but with gentle things, as Caſſia, Manna, Syrup of Roſes, Agarick, Rhubarb, made into a Bolus; becauſe in a moiſt form being drunk, they quickly go to the Ureters, and encreaſe pain.

You may give this Opiate following:

Take of *Polypody of the Oak, and Liquoris, of each half an ounce: the four great cold ſeeds, of each one dram: Borrage and Violet flowers, of each half a pugil: Jujubes ſix pair, Damask Prunes three pair: ſmal Raiſons half an ounce: Senna one ounce and an half: Infuſe them all night in Barley Water; then boyl and ſtrain them: then diſſolve of Manna one ounce and an half; Caſſia three ounces: boyl them to an Opiate, adding in the end half an ounce of Rhubarb in pouder. Give one ounce at a time, once in a week, two hours before meat.* Or,

Take of *Caſſia two ounces: Manna one ounce and an half: the Mucilage of Fleabane ſeeds ſix drams: the four great cold ſeeds, of each one dram: the Juyce of Liquoris two drams: With Syrup of Roſes ſolutive make an Opiate.*

Theſe Opiates wil be better if you put Mercurius dulcis to them, becauſe Mercury doth clenſe and heal al Ulcers both internal and external.

Turpentine is purging, and excellent in this Diſeaſe, becauſe it clenſeth the Ulcer. And you muſt give half an ounce thereof waſhed at once, with Pouder of Liquoris. But it is chiefly good when the Urine is thick.

Avicen commends Vomiting for this Diſeaſe, *Cap. de Ulcer. Renum, A Vomit* (ſaith he) *is the beſt way to cure an Ulcer in the Reins, becauſe it clenſeth and emptieth, and draweth the Humors from the part.* But *Ætius* in his Chapter *de ſuppuratis Renibus*; *If* (ſaith he) *any man will take a ſtrong Vomit every month, he will happily cure the Ulcer of the Reins, or any other evil that ariſeth from them.* Many Modern Phyſitians follow theſe; ſome gave warm Oyl and Water one hour before meat: which only Medicine being often repeated hath cured this Diſeaſe, as they ſay. But *Rondeletius* wil have them vomit after meat, becauſe then men vomit moſt eaſily; and he gives warm Water and Oyl, and anoints the Stomach with Oyl of Lillies. But you muſt never give a Vomit, but to them that are eaſie to vomit; for otherwiſe it would Inflame the Ulcer.

After due Evacuations and Revulſions, you muſt uſe Clenſers. The chief is, Whey taken every morning in abundance; or thin Hydromel, ſix or eight ounces in a morning in ordinary drink, or the Decoction of Barley and Liquoris with Sugar, and give Water and Sugar for ordinary Drink. You may boyl in Hydromel, if you fear heat, the cold Seeds, Liquoris, and Mallows. Aſſes Milk doth not only clenſe with its Wheyie part, but heal with its cheezy part, but you muſt not give it in a Feaver, or you may make this following Decoction to clenſe and eaſe pain.

Take of *Marſh-mallow Roots half an ounce: Plantane, Agrimony, Maiden-hair, and Mallows, of each one handful: Mallows and Melone Seeds with their Huſks beaten, of each half an ounce: Winter Cherries ſix drams: ſcraped Liquoris one ounce: Barley one pugil: boyl them to two pints. Diſſolve in the ſtraining three ounces of Honey, and two ounces of Sugar candy: make a Julep. Take eight ounces every morning for ten daies.*

Thoſe Medicines you give for the Reins or Womb, muſt be given in great quantities leaſt they loſe their vertue before they come there.

Inſtead of them al, you may uſe Mineral Waters of Allum and Iron, by the conſtant uſe thereof the heat is corrected, and the Ulcer mundified and healed.

Some commend the Decoction of China, Sarſa, or Saſſaphras, or of Guajacum given thirty daies or more together, with a ſecond Decoction thereof for ordinary Drink, and a thin drying Diet; and leaſt the Bowels ſhould thereby be too much inflamed, they give cool Broths at night, and anoint the Reins with cold Oyntments. And this courſe is taken to dry up the matter, to purge and clenſe, eſpecially in them that are flegmatick, or have the French Pox, and have neither Feaver, nor Flux of Blood.

But in any caſe you may uſe with more ſafety this following:

Take of *Sarſaparilla three ounces: Shavings of Maſtich Tree two ounces: Saſſaphras one ounce: Shavings of Ivory and Harts-horn, of each ſix drams: Jujubes and Sebeſtens, of each half an ounce: Lignum Nephriticum four ounces: Barley two ounces. Infuſe them twelve hours in five pints of ſpring Water: boyl them to three pints, for ſix draughts, to be taken twice in a day; aromatize them with two drams of Cinnamon.*

After the uſe of Clenſers, when you ſee by the decreaſe of the quantity of Matter in the Urine, that the Ulcer is clenſed, as when it is white, and even, and not filthy, give drying, aſtringing, glutinating, and heating things; as theſe Troches following:

Take

Take of *Bole-armenick, ſealed Earth, and red Coral, of each three drams: Gum Arabick and Tragacanth, of each half an ounce: with Agrimony Water make Troches of two drams apiece. Let him take one every morning with boyled Milk, or the Decoction of Comphry.*

The Troches of *Gordonius* are beſt of all, becauſe they aſſwage pain and heat. Their Doſe is two or three drams, with Hydromel, or Barley Water, when you wil clenſe more; or with Goats or Sheeps Milk, when you wil glutinate more.

For the ſame, uſe this following Opiate:

Take of *Conſerve of old Roſes three ounces: Purſlain and Plantane ſeeds, Myrtle Berries, Bole, ſealed Earth, Sanguis Draconis, of each one dram: the ſhavings of Ivory, and Troches of Winter Cherries, of each half a dram: with Syrup of dried Roſes make an Opiate, of which give the quantity of a Cheſnut twice in a day.*

You may make knitting Juleps thus:

Take of *Comphry Roots two ounces: Plantane and Mouſ-ear, of each one handful: the tops of Mallows and Maiden-hair, of each half a handful: Liquoris half an ounce: Starch and Gum Arabick, Tragacanth and Bole, of each one dram: Lettice and Purſlain ſeeds, of each one dram and an half: red Roſes one pugil: boyl them in Rain Water to one pint and an half. In the ſtraining, diſſolve four ounces of Sugar of Penides two ounces: make a Julep. Give eight ounces in a morning for ten or twelve daies.*

Alſo the following Pills are good:

Take of *Turpentine waſhed in Plantane Water one dram: Juyce of Liquoris and Gum Tragacanth, of each two ſcruples: Bole and Troches of Winter Cherries, of each half a ſcruple: With the Juyce of Horſ-tail make Pills. Let him take half a dram morning and evening.*

They are ſtronger made thus:

Take of *Marſh-mallow Roots and Comphry dried, of each two drams: Gum Arabick, Cherry and Plum-tree, of each one dram: Olibanum and Myrrh, of each four ſcruples: white Poppy ſeeds, and Winter Cherries, of each one dram and an half: Camphire two ſcruples: beat them finely, and add the weight of the third part of them all of Antimonium Diaphoreticum; and with Venice Turpentine make a Maſs. Give one dram morning and evening long from meat, and after it a little of his ordinary drink.*

If Turpentine cauſe paih, give inſtead thereof Juyce of Liquoris diſſolved in Pellitory Water.

And above all, new Milk from the Cow with one dram of Bole-armenick that is true, every morning, is excellent, as *Foreſtus* ſaies: And it is a ſecret of his Maſter *Helidæus*, becauſe it clenſeth and healeth the Ulcer.

Quercetan in his Diſpenſatory, commends the Water that is given for the Gonorrhœa, as good for the ſame, as well as other Ulcers.

Hartmannus commends an Opiate made of Conſerve of Roſes two parts; and the Pouder of the Seeds of St. Johns wort one part, given in the end of the Cure many evenings together. And alſo two or three grains of Mercurius Dulcis given every day in Plantane Water.

But Mercurius Diaphoreticus is better, if wel made, and as it were fixed: this cures al internal ulcers miraculouſly.

In old Ulcers, the Decoction of round Birthwort in white Wine with Sugar, is very good.

Alſo obſerve what *Garcias ab Horto* ſaies, That in *Goa* they give Aloes and Milk for Ulcers in the Reins and Bladder, or to ſuch as piſs filth, and it preſently cureth.

Outwardly to knit give this Oyntment:

Take of *Juyce of Plantane and Nightſhade, of each four ounces: Oyl of Roſes three ounces: Vinegar one ounce: Litharge finely poudered one ounce and an half: waſhed Ceruß half an ounce: fine Pouder of Tutty two drams: Sanguis Draconis one dram. Make them into an Oyntment.*

Alſo you may uſe this following when there is no Inflamation.

Take of *Oyl of Roſes and Maſtich, of each two ounces: Myrrh, Aloes, Sarcocol, Sanguis Draconis, of each one dram: Starch and Gum Tragacanth, of each four ſcruples: Styrax Calamita one dram: white Wax as much as will make an Oyntment.*

In the Ulcer of the Bladder it is proper to make Injection twice in a day; firſt with Hydromel, or Whey, or the Decoction of Barley with Honey of Roſes to clenſe; then with Aſtringers and Binders made of Iron Water, in which Comphry Roots, Myrrh, Allum, and Sarcocol with Tragacanth have been boyled. But eſpecially with the Troches of *Gordonius* diſſolved in Milk.

Fabricius Hildanus cured a great Ulcer in the Bladder with this following Injection, and ſome few other Medicines, Obſ. 69. Cent. 3.

Take of *the Roots of Comphry one ounce: Agrimony, Pauls Bettony, Water Germander, Ladies Mantle, Sanicle, of each half a handful: boyl them to a pint. In the straining dissolve two drams of Honey of Roses: mix them for an Injection.*

And you must observe that these Injections are not only to be made with a Syringe, because they wil not enter into the Cavity of the Bladder, the Sphincter Muscle being shut, but you must conveigh it in with a Catheter.

And because in these Ulcers the pains are usually great, you must through the whol Cure abate them with Anodines inwardly and outwardly. Inwardly with Syrup of Poppies, Laudanum, and the Troches of Alkekengi made for this purpose; as also with Emulsions made of the cold Seeds, and white Poppy Seeds, with a little Syrup of Poppies, or with the often giving of Conserve of Marsh-mallow flowers.

Outwardly you may apply this Fomentation following, to the Reins.

Take of *Marsh-mallow Roots two ounces: Mallows, Pellitory of the wall, Violets, of each one handful: Lin-seed, Fœnugreek, and Winter Cherries, of each three drams: Chamomel, Melilot flowers, and Water Lillies, of each one pugil: make a Decoction, with which foment the part, not with Spunges, because they have a saltness in them from the Sea.*

After the Fomentation you may apply this Liniment:

Take of *the Oyl of Violets, and of sweet Almonds, of each one ounce and an half: Oyl of Roses one ounce: Mucilage of Marsh-mallow seeds, and Fœnugreek, of each two ounces: Saffron one scruple: make a Liniment.*

Make this following Injection against the pain of the Bladder.

Take of *Fœnugreek and Quince seeds, of each one scruple: steep them one hour in one pint and an half of Barley Water: after strain them, and make a moist Mucilage; to which add of Oyl of sweet Almonds two ounces: Honey of Roses strained one ounce: mix them for an Injection.*

And if you inject warm Milk, it is excellent for the same purpose. In which if you dissolve the Troches of *Gordonius*, you wil compleatly ease pain, and cure the Ulcer.

Chap. 6. *Of* Diabetes, *or extraordinary Pissing.*

Diabetes is a quick and plentiful sending forth of Drink by Urine; after which there comes a violent Thirst, and consuming of the whol Body.

It is called Diabetes *apo tou diabainein*, from passing through, as Water through a Conduit pipe, which is called Diabetes. This Disease is also called *Dipsacos*, from the unquenchable Thirst, and the Piss-pot Dropsie, from the continual making of Water. It is seldom seen, for *Galen* in 6. de loc. aff. cap. 3. saith that he saw it but twice.

The next and immediate Cause of this Disease, from *Galen*, and al his followers, is held to be a hot distemper of the Reins, which makes them draw Water violently from the Veins, and send it to the Bladder being not able to contain it themselves; the Veins being drawn dry, suck from the Liver; the Liver from the Guts and Stomach; hence comes a continual Thirst after drink, which as soon as it is taken, it is forthwith carried from the Liver and Veins into the Reins, where by its quantity it stretcheth up the Expulsive Faculty, and burdening the Retentive Faculty, it is sent to the Bladder.

Some suppose that this cause is insufficient, because the hot distemper of the Reins is an usual disease, but Diabetes is very rare; therefore there must be somthing else that is less usual, namely, a sharp or salt Matter in the Kidneys, either of Choller or of Flegm, which doth continually provoke the attractive vertue of them; as in Chollerick Feavers there is a Thirst which cannot be quenched, from the Chollerick Humor which is fixed to the coat or Tunicle of the Stomach, or from Chollerick Vapors sent from some adjacent part into the Stomach, by the motion of some putrid Choller which lodgeth there. This Opinion is probable; but we think good to add thus much to it, That the Kidneys alone are not affected in this Disease, because Choller and other burnt Humors are first bred in the Liver; and therefore they cannot be in any quantity in the Kidneys, but the Liver must participate of them. And if we may reason where Nature seems to be silent, we can say that there is a venemous quality concurring for the producing of this Disease. For that kind of Serpent called *Dipsacos*, found in *Lybia*, when it bites any man, doth send into him such a poyson as begets an unquenchable Thirst. The like kind of venom may be bred in our Bodies, by a peculiar corruption of some humors, which may cause such a Thirst; for *Galen* testifieth that divers kinds of poysons may breed in our Bodies. And if such a kind of poyson may be bred in our Bodies as may cause a detestation of Drink,

Drink, as in *Hydrophobia*, in which the Patient cannot endure the ſight of Water, or any Drink, why may not then there be produced another poyſon, which hath the contrary quality, to cauſe a great and unquenchable Thirſt? And hence may be the reaſon why this Diſeaſe is ſo rare; becauſe this kind of poyſon is ſeldom bred, but Choller and Salt Flegm, and the Diſeaſes from thence, are ordinary. And as the Diſeaſe called Dogs Appetite, which is compared to this for the unſatiable deſire of meat, is aſcribed by the wiſeſt Phyſitians to an occult quality; ſo this unquenchable thirſt may be ſaid to come from a peculiar and hidden quality.

The Signs of this Diſeaſe are cleer from what hath been ſaid; as an extraordinary making of Water, an unquenchable Thirſt, and a ſudden piſſing forth of what is drunk, a decay of the whol Body; for the moiſture which would nouriſh the Body, is piſſed forth with the drink. And though there be often a large Evacuation of Urine in ſharp Feavers, and other caſes, yet that is not to be called Diabetes, becauſe the aforeſaid Symptomes, as great Thirſt and Conſumption of the Body are not joyned therewith.

The Prognoſtick of this Diſeaſe is deadly, for it is incurable, except it be in the beginning thereof; for it preſently brings a Conſumption. In old men it is more dangerous; and when it comes after inordinate Lechery, or Agues.

The Cure is wrought by allaying the hot diſtemper of the Kidneys, and by ſtrengthening them by thickening the Humors that flow unto them, and by oppoſing the malignant quality thereof; all which may be done with theſe Medicines following:

In the beginning of the Diſeaſe while there is ſtrength, you may open a Vein, for to revel or pluck back, and cool the Humors; but it muſt be done divers times, and but a ſmal quantity of blood taken away. But if the ſtrength be decayed, or if this follow another Diſeaſe, Phlebotomy muſt not be.

You muſt give Mollifying and Aſſwaging Clyſters to draw forth the Excrements, made thus:

Take of *Lettice, Purſlain, Mallows, and Plantane, of each one handful: clenſed Barley, and red Roſes, of each one pugil: make a Decoction to one pint and an half. In the ſtraining diſſolve of Diapruines ſimple ſix drams: Honey of Roſes, and Sallet Oyl of each two ounces: make a Clyſter, and uſe it often.*

You may alſo give a gentle Purge with Caſſia, and Pulp of Tamarinds, or the Decoction of Plantane, Purſlain, Lettice, Tamarinds, and Myrobalans, with Syrup of Roſes.

Some commend Vomits made of the Decoction of Rhadiſh Seed, and Dwarf-Elder with Oxymel, which doth Evacuate and draw from the Ureters.

To correct the diſtemper of the ſaid parts, and to thicken the Humors, Juleps made of the Waters or Decoctions of Lettice, Purſlain, and Plantane, with Syrup of Myrtles, Quinces, and the like, and Syrup of Poppies, in a ſmal quantity, adding the Pouder of Diatragacanth frigid, and the Troches of Sealed Earth, and the like.

Or to aſtringe more, make them thus:

Take of *Comphry and Plantane Roots, of each one ounce: Plantane Leaves one handful: Pomegranate Flowers, and yellow Myrobalans, of each one dram: Plantane and Purſlain ſeed, of each half a dram: red Roſes one pugil: boyl them to a pint. In the ſtraining diſſolve of Syrup of Quinces three ounces: make a Julep for three Doſes.*

For the ſame end you may make a Pouder, or an Opiate thus:

Take of *Plantane, Purſlain, and Coriander ſeeds prepared, and red Roſes, of each one ounce: prepared Coral, Bole-armenick, prepared Pearl, and Tormentil Roots, of each one ſcruple: Nutmeg half a dram: mix them into Pouder.*

Take of *old Conſerve of Roſes, four ounces: Bole, prepared Coral, and burnt Harts-horn, of each one ſcruple: with Syrup of Quinces make an Opiate.*

Eraſtus highly commends the Syrup of Comphry Roots and Sloes, which he ſaith he uſed with good ſucceſs in theſe Diſeaſes.

Alſo Narcoticks, or Stupefactives uſed wiſely, are very good, as new Treacle, Syrup of Poppies, and Laudanum.

If it continue long, Sheeps Milk, Cow, or Aſſes Milk, are excellent, if you firſt conſume the Whey thereof, with often quenching Flints therein, and he may uſe it in the morning, as we ſhewed in other Cures.

Sweating is commended by Authors, by which means the ſerous Humor is drawn outward. But it is to be miſtruſted, becauſe it is very like to purge by Urine, and encreaſe the diſtemper of the Bowels. But if it be uſed at any time, it muſt be of the mildeſt ſort, as of Roots of China, Sarſa, Endive, Borrage, Sorrel boyled in Water, or for thoſe who are conſumed, in Chicken Broth; but we think it ſafer to provoke ſweat by outward means; as by a vapor from ſome convenient Decoction in a wooden Inſtrument.

Such Sudorificks as are prescribed in malignant Feavers, are excellent, especially if Spirit of Vitriol be in them, to quench Thirst, stay the flux, and resist the malignity.

For Drink, let the Patient use Iron'd Water with sharp and astringent Syrups, or a Decoction of Sloes, and the inward Bark of an Oak; by which Medicine even alone, *Erastus* saith that he cured this Disease in a Boy.

Outwardly, Apply a Fomentation to the Loyns made of Sorrel Roots, Plantane, Pomegranate peels, Sumach Seeds, and the like, with a little Vinegar; or, which is most proper, make a Bath of the same Decoction to sit in.

And anoint the part with Unguent of Roses, Sanders, and Comitissa mixed together, or this following:

Take of *Oyl of Roses and Myrtles, of each one ounce: red Sanders, red Roses, and red Coral, of each one scruple: Juyce of Plantane one ounce: Wax, as much as will make an Oyntment.*

Then you must allay the Symptomes that accompany this Disease, as thirst, watching, consumption, and the like, by their Remedies mentioned in their proper Chapters.

Chap. 7. *Of Pissing the Bed, of Involuntary Pissing, or not containing of Urine.*

THe not holding of the Urine consists in the hurting of the Retentive action of the Bladder, as Diabetes, or extraordinary pissing, comes from the hurt done to the attractive faculty, and Dysuria from the distemper in the Expulsive: so this comes from the disorder in the Retentive Faculty of the Bladder. This comes somtimes to people awake, and then the Disease is worse; somtimes to them asleep, and then it is less, because then the animal Functions are exercised less freely. And this in time of sleep comes two waies, either from weakness and looseness of the Sphincter Muscle of the Bladder, as in sucking Children, weak people, and somtimes in them of yeers, or from the hurt of the Imagination: for many do piss their Beds, either from too much drink, or from the exquisite sence of the Bladder, and the Urines sharpness, with some consent of their will, when they dream they are pissing against a wall, or other place; and they are so accustomed to it, that it is done without any distemper either of the Bladder, or its Sphincter; nor are they to be cured with Medicines, but by change of their fooliish Imagination, as Children by whipping; or, in those of yeers, by adorning those places which they dream they piss upon, with some costly things, and shewing them often.

The true cause of this is in the Sphincter Muscle, which suffers either from its self, or by consent from other parts.

It comes divers waies by consent, as when the whol Body is weak, and the vital heat spent, as in dying men, or when the whol Body, or half of it is taken with the Palsey, or those branches of Nerves which come from the *Os Sacrum* to the Bladder: somtimes the looseness of the Muscle comes from the pain only, and neerness to other parts affected, as in Women with Child, from the swelling and pain of the Womb, and in the great Disease of the straight Gut.

The Sphincter Muscle suffers divers waies by its self, as when it is wounded, as in cutting for the Stone, or in deep Ulcers which hinder its contraction and shutting. But the chief and usual cause is, a cold and moist distemper, which is most fit to weaken and make loose the part. Which is produced of a cold and moist Native temper, Youth, old Age, Women, and the Diseases of the whol Body, or some parts thereof, coming of a moist and cold distemper: to these you may add external causes, often mentioned.

But here we may dispute how contrary Effects may be produced of the same Cause: for *Hippocrates* in Coac. saies that stoppage of the Urine comes of a cold cause, in these words; *A stoppage of Urine coming of cold is worst of all*; now not holding, and stopping, are contrary. We must answer that when a cold distemper doth only hurt or abolish the sence of the Bladder, there may be a suppression of Urine, because the Bladder cannot be sensible of provocation to expel Urine: but if the motive faculty which is in the Sphincter Muscle be hurt, by reason of the looseness of it, the Urine cannot be retained.

The Signs of this Disease, either shew this Disease to be by consent, and these must be taken from the Diseases before mentioned, which are apt to produce this not holding the Urine, which if you find, you may conclude that the disease comes from them: but if they be absent, then you must bethink your self of the propriety of the Disease to the part, which will be easily discovered if it come from a wound and Ulcer, or the like Disease of the Sphincter: but if neither of these appear, you must consider of the cold and moist distemper of the part; and this is known by the causes both internal and external, and by the effects which depend upon them, as softness of the whol Body, whiteness,

nefs, looſneſs of the Nerves and Privities, Childhood, Age, evil Flegmatick Concoction, and the like.

As for the Prognoſtick.

This Diſeaſe is incurable in old men, by reaſon of their great moiſtneſs, and the loſs of Vital heat, which cannot be repaired.

In an acute Feaver, involuntary Piſſing is very dangerous; for it comes either of a Delirium, or from a great deſtruction of al the Faculties, which followeth the extinction of the Natural heat.

In Children it is cured when they grow elder, and the ſuperfluous humidity is by degrees conſumed, and the parts that were looſe, are more knit: But if they be not cured before twenty five yeers of age, they are incurable.

The Cure is wrought by amending the cold and moiſt diſtemper, and looſneſs of the Sphincter Muſcle; but that which comes by ſympathy from other diſeaſes, muſt be cured by the removing of them: as alſo that which comes from Wounds, Ulcers, and other manifeſt Diſeaſes, depends upon the Cure of them. Therefore we ſhall lay down a way of Cure proper both for Children and men, provided that the Phyſitian be skilful in the choyce of his Medicines, to give the gentleſt to Children, and that he encreaſe and diminiſh the quantity according to the Patients age.

Firſt, Here is little uſe of Phlebotomy, becauſe it comes from a cold diſtemper, and flegm; except there be a general Plethory in the whol Body, being youthful.

But Purging is alwaies neceſſary in this Diſeaſe, made of things that purge flegm, mixed with ſome aſtringents that are not only Alterers, but Purgers, as Rhubarb, and Myrobalans, and the like.

After, to dry up the Matter that is flegmatick, and to knit the part, you may uſe Pouders, Opiates, and Phyſick Wines, and the like, made thus:

Take of *Cypreſs Nuts, and Myrtles dried at the fire, ſhavings of Ivory, Coriander ſeeds prepared, red Coral, and Amber, of each two drams: Spodium, or burnt Ivory one dram, Cypreſs Roots, and Galangal, of each half a dram: With the Syrup of Citrons make an Opiate, of which let him take the quantity of a Cheſnut morning and evening. Drink after it a little red Wine.*

Or you may give the aforeſaid Pouder from half a dram to a dram, with red Wine twice in a day, long after, and before meat.

Take of *Comfry Roots half an ounce: Cypreſs Roots, and Galangal, of each one dram: Plantane, Horſ-tail, and Five-leaved Graſs, with the Roots, of each one handful: Cypreſs Nuts, Acron Cups, of each four ſcruples: Rue ſeed, Agnus Caſtus, Frankinſence, and Ivory ſhavings, of each half a ſcruple: red Roſes one pugil: red Wine four pints. Infuſe them twenty four hours, ſtrain them through an Hippocras Bag, adding of Cinnamon half an ounce: Sugar as much as is ſufficient to make a Claret, of which let him take three or four ounces twice in a day.*

Many proper things are propounded by Authors, which do conduce to the Cure of this Diſeaſe. *Galen* in his Book of Local Medicines, and of things eaſie to be prepared, commends the Brain and Stones of a Hair burnt. Alſo a Snail burnt, with its ſhell given to Drink. The Modern Phyſitians give Hares dung, pouder of burnt Mice, the Hoofs of Hogs burnt, the aſhes of Date ſtones, roaſted Hazel Nuts, pouder of Egg ſhels. But above all are commended the Pouder of Agrimony, and the inward Skins of Hens Gizzards dried, given either by themſelves, or mixed together with red Wine.

Solenander witneſſeth that he ſaw happy ſucceſs in a Medicine invented by one *Gilbert Holland*, a Roman Phyſitian: He took the Throat of a Cock, and dried it at the fire til it would pouder. He gave it before ſupper in red Wine, or with Oxycrate, for ſome daies together.

In people of yeers, ſweating Decoctions uſed twenty daies together, are good to dry the Body, made of Guajacum, and Saſſaphras; or Stuphs, Hot-houſes, Brimſtone Baths, and thoſe of Niter.

For his Drink, let him take ſharp red Wine without mixture, or with a little Ironed Water.

They who can drink only Water, may take Ironed Water, or that in which Coriander ſeed, or a little Maſtich hath been boyled. Or laſtly, for the better aſtringing, let them take Water in which new Tiles have been quenched, and boyl their meat with the ſame. But they muſt drink but little, eſpecially at Supper. And let the Patient make water when he goes to bed, and be raiſed again at midnight, and in the morning for the ſame purpoſe, and this wil alter cuſtom.

Outwardly to the Privities, apply warm, ſtrengthening, and drying things, thus made:

Take of *Elicampane Roots, Calamus Aromaticus, Acorus and Cypreſs Roots, of each half an ounce: Mints, Sage, Organ, Calamints, and Wormwood, of each half a handful: Cypreſs Nuts, Myrtles, Galls, and Pomegranate flowers, of each one dram: red Roſes one pugil: boyl them in equal parts of Smiths Water, and red Wine to two pints. In the ſtraining, diſſolve of Salt and Allum, of each one ounce. Foment the Privities and Perinæum warm, morning and evening.*

Or

Or you may make a Bath of the same things in larger quantities.

After the Fomentation, anoint the same parts with an Oyntment of Oyl of Foxes, Rue, Flower-deluce, Unguentum Martiatum, Aregon, with Pouder of Mastich, Cypress, and Myrtles.

Or you may use Storax Liquid, or Indian Balsom, dissolved with a little Wine; or for rich folks Musk and Civet dissolved in Muskadel.

Or apply this Plaister to the parts aforesaid.

Take of *Labdanum, Mastich, of each two drams: Wood of Aloes, Styrax Calamita, Cinnamon, Turpentine, of each one dram: Myrtles, and Cypress Roots, of each half a dram: Juyce of Mints, and Horse-tail drawn with red Wine, as much as will make a Plaister.*

Lastly, If there be a defluxion from the head, which causeth the weakness; you must divert by Errhines, Masticatories, and Causticks to the Neck or Arm, and other Remedies, mentioned in the Cure of the Catarrh.

Chap. 8. *Of stoppage of the Urine, and Strangury.*

THe stoppage of Urine is called by Authors *Ischouria*; but when little is voided, it is called *Stran-gouria*: although this word be larger, and comprehends all dropping of Urine; but if it be without pain, and the Urine come by drops, with straining, it is a smal Ischuria; but if it be with pain, it must be referred to Dysuria, or scalding of Urine.

Therefore Ischuria, or a whol suppression of Urine, is two-fold, namely true, when the bladder is full; or Spurious, when the Bladder is empty, and nothing comes to it from the Reins.

A true Ischuria comes of three Causes: The first is when the sence is lost in the Bladder, by reason of the Palsey, and obstruction of the Nerve that comes to it, or by the eversion of the Spirits, by whose defect it comes, so that the Bladder feeleth no pricking to expel, as in dotings, and sleepy diseases.

The second cause is a cold distemper of the Bladder, coming from internal or external cold causes, which dull the sence of the Bladder, and weaken its expulsion.

The third Cause is the narrowness of the Neck of the Bladder, which will not suffer the Urine to pass. *Galen* gives three causes of this, 1. *de loc. affect. cap.* 1. either the Muscle is swollen by an Inflamation, Scirrhus, or Impostume, or the like; or there is a little flesh grown in the passage, by reason of a former Ulcer; or there is a hardness from some thick Humor of long continuance. Also the Passage is stopped by the Stone, by a Crude and Thick Humor, by a Clod of Blood or Matter.

Besides, The Urine may be stopt by a Tumor in some part nigh to the neck of the Bladder, from the swelling of the Womb, from the Excrements in the straight Gut, or from the Hemorrhoids growing big.

Sometimes it comes from the long holding of the Water, by which the Bladder is so stretched that it cannot contract it self to expel Urine, by which stretching, the Passage is stopt and contracted. Now the Bladder is filled by Urine too long detained, two waies. First, when a sound man by urgent occasions in the Market, Senate, Church Banquet, Running, and the like, holds his Urine for want of opportunity to void it, which stretcheth it so that it cannot again contract it self; and the pricking of the Urine is not perceived by reason of its dull sence from the distemper of the Nerves which come thither, when those Nerves which are for the contracting of the Muscle, are well and sound, which *Galen* saith befel one 6. de loc. aff. cap. 4. when his Back bone was strained.

That is called a bastard Ischuria, in which the Urine is stopped, and the bladder empty, because no Water descends into it. There is a two-fold Cause why no Urine comes to the Bladder, either because the Kidneys do not draw that wherof the Urin is made, and send it down, or because the Ureters wil not receive it, therfore either the attractive or expulsive Faculty of the Reins is hurt. The attractive or drawing Faculty is hurt by the Error of the Object, or in its self. This is from a strong distemper, especially cold, or from some stoppage in the Reins, or in the Emulgent Veins. These Obstructions proceed from the Stone, thick flegm, or Matter that falls down thither. The obstruction of the Emulgents comes sometimes from too much blood, or serous Matter; a Story whereof we have in our Observations, Obser. 1. Cent. 1.

By the fault of the Object, the attraction of the Reins is hindered, when the serum or water is spent, as in burning Feavers; or sent to other parts, as in a Dropsie.

The Expulsive Faculty is hurt by the same Causes, namely, distemper, the stone, clods of blood, matter, of grois flegm, or Inflamation.

The

The Ureters do not receive the Serum, nor ſend it to the Bladder, by reaſon of Inflamations, or Obſtruction by the Stone, a clod of Blood, Matter, or thick flegm, or by a compreſſion from ſome humor in a part adjacent.

We muſt obſerve that both Kidneyes or Ureters are affected, for the total ſtoppage of Urine; for if one be open, the Urine may paſs.

The aforeſaid Cauſes, if they be violent, may make a total Obſtruction of Urine, which is called *Iſchuria*; but if they be ſmal, or remiſs, they make only an evacuation in part, which is called a Strangury; and both Diſeases come from the ſame cauſe, different in degrees.

A true Iſchuria is known by the weight and enlarging of the lower part of the belly, and by a Tumor in form like the bladder.

The Cauſes are known by things aforegoing, or that accompany it: For if it come from too great a quantity of Urine, which hinders the contraction of the Bladder, the Patient wil tel you how that he forbore to piſs by reaſon of long riding, or the preſence of ſome people of Honor, and that before he never had any diſtemper in thoſe parts. But if he hath had a Delirium, a Palſey, or the like, you may refer the ſtoppage to them.

The Stoppage which comes from Tumors of thoſe, or the adjacent parts, or other Cauſes before mentioned, wil be known by their proper Signs.

The ſtopping of the paſſage of the Bladder is known by a ſearing Candle put in, or a Catheter; which if they cannot pierce, but are ſtopped by the way, ſhew that there is a either ſtone, or a Caruncle, or a little Excreſcens of fleſh, or the like in the paſſage.

And theſe are to be diſtinguiſhed; for if it be a Stone, there was formerly a pain of the Reins, whether it came from the Bladder or Reins. If a Caruncle, there was a ſtinking Gonorrhœa, or running of the Reins, or an Ulcer in the paſſage of the Yard that did long run.

And laſtly, If there be a Clod of Blood, or Matter, or Flegm, you ſhal ſee ſome part of it come out of the Yard, or it wil ſtick to the Catheter.

A Barbard Iſchuria is hence known, There is neither extenſion, nor Tumor, nor weight about the Privities, but rather a kind of emptineſs thereabout; there is no deſire to piſs, no tickling in the bladder, and no Urine made, there went before the ſigns of the Stone in the Kidneys, or Ureters, or of Inflamation, or great fulneſs, or much drink was taken, which was not plentifully piſſed forth: whence the Veins might be ſwoln, or elſe there is a burning Feaver, or a Dropſie, which ſignifie the revulſion, and turning away of the Water or ſerous Matter.

As to the Prognoſtick. The ſtoppage of Urine is very dangerous, and if it continue above ſeven daies, it is deadly: for the Serum being retained in the Veins, doth oppreſs the Liver, infect the blood, and runs into the whol body, it brings danger of choaking, and being carried to the brain, produceth a Coma, or kind of Lethargy.

The ſtoppage of Urine which comes from the back, being wounded, or by a fall, or ſtraining of the Vertebræ, or back-bone, is incurable.

If the Patient ſtink of Piſs at his mouth or noſe, it is deadly.

If a Tenaſmus or Needing follow a ſuppreſſion of Urine, it is death in ſeven daies. And alſo if the Hiccough follow upon it.

The Cure of the ſtoppage of Urine, whether it be total or partial, muſt be by aiming at the Cauſes. And firſt, that ſuppreſſion which is called ſpurious, and depends upon the Diſeaſes of the Reins or Ureters, is to be found in the Cure of the Inflamation, pain, or ſtone of the Kidneys; that which comes from the fulneſs of the Emulgent Veins, is to be cured by large bleeding, and Medicines that purge Water. A true Iſchuria is cured by things that take away the cauſe: and firſt, if it come from Inflamation of the bladder, or parts adjoyning, you may find Medicines for it in the Cure of the Inflamation of the bladder.

But if it come from a ſtone in the neck of the bladder, you muſt uſe theſe Remedies following.

Firſt, you muſt lay the Patient upon his Back with his Thighs lifted up, and then ſhake him ſoundly to make the ſtone return into the Bladder: And if this wil not do it, ute the Catheter. But if the ſtone be in the paſſage of the Yard, you muſt labor to get it out with your fingers, gently ſtroaking it to the end of the Yard; and you muſt put the Yard into warm Water or Milk, or the Patient into a Bath to open the Paſſage. But if you can neither get it out nor in, Practitioners ſay that you may bind the Yard on both ſides of it, and take it out by Inciſion.

The Obſtruction of the neck of the bladder, which comes from Inflamation, wil be cured with the proper Medicines againſt Inflamation. But in the mean while, if the Urine be there long detained, you may gently conveigh in a ſearing Candle dipt in a little Oyl of ſweet Almonds, avoiding the Catheter, leſt it cauſe pain, and ſo encreaſe the Inflamation.

If the ſtoppage of Urine comes from a Caruncle, you muſt take that away. This is done by proper Medicines conveighed thither with a Wax Candle, which muſt be done by a skilful hand. And if

the

the Caruncle swel and stop the Passage, necessity wil constrain you to use the Catheter to draw away the Urine, although there be danger left the part disturbed should swel more. But you must first make use of Revulsions, by bleeding, vomiting, and Repellers to the Privities, to take away the Inflamation of the Caruncle, that way may be made for the Urine.

If suppression of the Urine come from thick flegm, first it is good to purge with a Bolus made of Diaphœnicon and Rhubarb, and then to give Turpentine often with Pouder of Liquoris; afterwards a Decoction of opening Roots, with Oxymel, or Syrupus Bizantinus; not omitting in the mean while, Clysters, Fomentations, and Baths, that mollifie and open. And all those things will be proper which were propounded for the dissolving and expelling of the Stone.

And among the rest, Experience hath taught us that these following are excellent.

Take of *Benedicta Laxativa half an ounce: the Troches of Myrrh two scruples: the Decoction of Savin three ounces. Mix them for a Potion. By this a woman was presently cured of the stoppage of Urine.*

If there be abundance of Flegm in the whol Body, or in the Head, after blood-letting, from the beginning of the Cure, you must purge with an Apozeme three or four daies together.

Also the Julep mentioned in the Cure of the Stone of the Kidneys, made of the juyce of Pellitory of the wall, Sea-fennel, and Lemmons, with Oyl of sweet Almonds.

The Syrup of Rhadishes, of *Fernelius* his Prescription, given two ounces at a time, is very excellent.

Dodonæus in Observat. Cap. 48. reports of one of fourscore yeers of age, that was cured of a stoppage of Urine with dropping, by a Lixivium or Lye made with ashes of Egg-shels, and Rhenish Wine, once taken.

Arnaldus Villanovanus commends the Wine of Winter Cherries in this following History, mentioned in his Book of Wines. *There was in my time a Cardinal, who had not pissed for four daies, who was desperately swoln, and cured by the advice of a weak Physitian, with Winter-Cherry Wine, and he voided as much Urine as would fill a Bason. By that only Experiment, that Physitian being poor, and of smal parts, became a great rich man. Many God bestows his Blessings upon, his waies are unsearchable.* This kind of Wine, as *Arnaldus* shews, is made by taking five, or seven, or more Winter Cherries, and beating them with good white Wine, and then straining them, and giving them to be drunk.

Hog-lice also beaten with white Wine, and given to be drunk, are good for the same.

The Oyl of Scorpions, as *Mathiolus* prescribed it, given five or six drops in Broth or other Liquor, doth powerfully provoke Urine.

The often use of the Crystal Mineral, doth provoke Urine, especially when you fear inflamation, which is often caused in the inward Skin of the Bladder, by the stoppage of Urine.

The Spirit of Salt doth it better.

The Vulgar Medicine of the Juyce of Pellitory of the wal refined, four ounces with half an ounce of Sugar, doth very much good. You may mix therewith Sal Prunellæ, or Spirit of Salt.

If these stoppings from Flegm, do often return, there is nothing better than Brimstone, and Niter Bath-Waters; which both by drinking and bathing, do easily dissolve, clense, and consume that slimy matter.

A certain Nobleman having his Urine suppressed many daies, after other Medicines taken in vain, by this following Clyster kept two hours in his Body, was cured.

Take of *the Roots of Smallage, Parsley, Butchers Broom, Dogs-tooth, Sparagus, Mallows, and Marsh-mallows, of each two drams: Pellitory of the wall two handfuls: Annis, Fennel, Dill, Caraway, Carrot, Ameos, Carthamus, Rue, and Cummin seeds, with Bay-berries, of each half an ounce: Chamomel, Melilot, Dill, and French Lavender flowers, of each two pugils: boyl them in white Wine to halfs. In a pint of the straining, dissolve of fresh Butter four ounces: Honey of Roses two ounces: red Sugar one dram: Benedicta Laxativa half an ounce: one Egg: the Oyl of Nuts, Dill, Lin-seed, of each two ounces. Make a Clyster.*

The Chymists brag of their Medicines against this Disease; namely, Spirit of Salt, Vitriol, Sulphur, and Turpentine, which they give to half a scruple in convenient Liquors, or Chicken Broth. They Commend also the Salt of Tartar, and of Bean Stalks, given from half a dram to a dram.

And for Revulsion of the Humor from the part affected, they give Vomits, and they boast that very many have been cured thereby.

You must all the time of the Cure, use Liniments, Fomentations, Cataplasms, and Baths, and other external things which must be the same that were before mentioned for the pain in the Kidneyes: Among the rest a Cataplasm made of Pellitory of the wall, fryed in Butter or Oyl of Scorpions, is excellent. Also a Bladder half full of Oyl; which will be of more force, if you boyl Spanish Flies, called Cantharides therein.

Commonly

Commonly they apply a Cataplasm of fryed Onions with Hogs Grease to the Loyns and Privities, with some Eggs.

But raw white Onions beaten with Oyl into the form of a Cataplasm, do far better, if they be applied to the Kidneys, Ureters, and Privities.

A Cataplasm made of beaten Rhadishes, is good for the same.

When the Ischuria comes of clotted blood, you must dissolve it. For this purpose use Troches of Amber, the Rennet of a Kid or Hair, Mummy, simple Oxymel, and Oxymel of Squils, Syrup of Vinegar, and the like. Outwardly, a Cow-turd doth wonders, according to the Judgment of Learned *Ætius*, Tetr. 3. Serm. 2. Cap. 27.

Lastly, When the Urine is stopt by Matter, or comes only dropping, you must use Clensers and Cutters, such as were set down in the Cure of the Ulcer of the Reins and Bladder.

Chap. 9. *Of* Dysuria, *or Scalding of the Urine.*

BY the word *Dysuria*, we understand all painful pissing, which the Modern Writers call Scalding of the Urine. Many Authors make it all one with the Strangury, because there is painful pissing; but they will have it differ from Dysuria in this only, but because in Dysuria there is a greater quantity of Urine made, than in Strangury, which is therefore called pissing by drops. But we had rather for Instruction sake, call that Strangury which is pissing little, without pain, and put them in one Chapter, because they must be cured both the same way, and to treat here of all painful pissing under the name of Dysuria, being they come all of the same Causes, and are cured by the same Medicines.

The immediate Cause of painful pissing, is a solution of continuity in the Sphincter Muscle, or the passage of the Bladder: and therefore whatsoever can cause a wound in those parts, may cause heat of Urine.

The most usual Cause is sharpness of Urine, sometimes without mixture of other Humors, which is caused by a hot distemper of the Bowels, or of the whol Body, or by eating of hot and sharp Meats; but it often comes by mixture of hot and sharp Humors, as Choller and salt Flegm. Sometimes matter coming from the Reins or Bladder, being ulcerated, may cause such a sharpness of Urine. Sometimes a white Humor like Milk comes plentifully forth with the Urine, and causeth scalding, which is commonly thought to be Matter from the Reins; but *Sennertus* denies it for this Reason, For if all the Reins were turned into Matter, they could not afford so much as is many times voided at once, every day for a week together. And he supposeth that it comes from an evil Concoction, first of the Stomach, then of the Liver, because the error of the first Concoction cannot be mended in the second, hence the Chylus, and then the Blood remains crude, not freed from its Salt and Tartar-like parts, which ought to be separated in the first Concoction, and they being after sucked into the Roins, and sent to the Bladder, cause pain in pissing. He saith that he was brought to be of this Judgment, because a Learned man, who was troubled some weeks with heat of Urine, which he voided plentifully with half an Urinal ful of such white Matter, was (when nothing else could asswage his violent pains) cured only with drinking of Sack.

Also a stone in the Bladder, if it strike against the Neck of it in time of pissing, causeth pain; and also large Gravel which grates upon the passage of the Urine.

Also Inflamation, or Ulcer of those parts, causeth heat of Urine, because the sence is more quick at that time, and though the Urine be wel tempered, it is troublesom; as we see externally how the least touch is offensive to a sore place. So in a Gonorrhœa, as long as the Parastates are inflamed, there is a continual heat of Urine.

The Knowledg of this Disease is evident, for the Patient is forced to roar sometimes with pain. But you must distinguish the Signs of the Causes thus:

If it come from sharpness of Urine, it wil be thin and high colored, sometimes like fire, or there wil be a visible mixture of Choller, Flegm, or Matter; the Bowels wil be distempered, or the Patient hath eaten hot and sharp meats, and endured great heat.

The Stone and Inflamation of those parts are known by their proper Signs.

As for the Prognostick. This Disease of it self, is not dangerous, but very painful: and according to the cause, it is sometimes hard to be cured, especially in old men, which if they be decrepit, die thereof; and in all ages, if it continue long, it ulcerateth the neck of the Bladder.

The Cure is, first by taking away the Cause. And therefore if it come from the Stone, Inflamation, or Ulcer, you must cure them according to the Rules in their proper Chapters. But these things after mentioned, wil be good to allay the Symptome.

They who have it from the sharpness of Urine mixed with hot Humors, are to be cured by the Medicines following.

And first, Phlebotomy is good to correct the distemper of the Liver and other parts. This must be often, according to the Plethory and Inflamation; first from the right Arm, to evacuate and revel the Matter; and after in the lower Veins, to derive it from the part affected; for which cause, *Hippocrates*, and *Galen* who followed him, do command the lower Veins to be opened in Diseases of all parts beneath the Reins.

Purging also is good, of mild and gentle things, that cool, lest the heat be encreased. Therefore do not give any thing but a Bolus of Cassia alone, and indeed that is best. But you may make it cooler if you add the Pulp of Tamarinds. Or you may mix it with the Decoction of Lettuce, Purslain, and Mallow Tops, and give it many daies together, that the sharp Humors may be brought back from the part by stool. But if you desire to purge more by reason of the plenty of Humors, use this following:

Take *Lettice, Purslain, Plantane, and Mallow tops, of each half a handful: Tamarinds half an ounce: yellow Myrobalans one dram: boyl them to six ounces, and add to it strained, one ounce of Cassia: strain it again, and then add one dram and an half of Rhubarb infused in Lettice Water, with yellow Sanders, Manna, and Syrup of Roses, of each one ounce. Make a Potion.*

In an old Dysury, the purging Opiate prescribed in the Ulcer of the Bladder, is very good.

A gentle Vomit is excellent, for it revelleth from that part affected, and hinders those inconveniences which use to come by purging: Therefore give it once or twice in a week to them that can vomit easily.

By often Clysters, the sharp Humors are not only brought to the Guts, and sent out by degrees, but the distemper of the parts is qualified.

They are made thus:

Take of *Marsh-mallow Roots one ounce: Mallows, Violets, and Lettice, of each one handful: Water Lillies, and clensed Barley, of each one pugil: boyl them to a pint: Dissolve in the straining, Cassia new drawn one ounce: one Egg: and two ounces of Oyl of Violets. Make a Clyster.*

The Mucilages of Seeds of Marsh-mallows, Quinces, and Fenugreek, may be mixed with Clysters to asswage pain.

But Clysters of Milk only, or mixed with the aforesaid things, use to be so powerful to allay heat and pain, that we have known some of long continuance cured by them alone, and a Bath, whereof we will speak hereafter.

Experience hath found out many things good to be taken at the mouth, to allay heat, and to correct the distemper of the parts. The chief are these following:

Take of *Water Purslain, Lettice, Roses, and Water Lillies, of each one ounce: Syrup of Violets and Water-lillies, of each six drams: Sal prunellæ one dram. Mix them for a Julep, repeat it often.*

Take of *Marsh-mallow Roots one ounce: Lettice, Endive, Purslain, and Mallow tops, of each one handful: Melons, Guord, Mallows, Lettice, and white Poppy seeds, of each three drams: Jujubes and Sebestens, of each six pair: Violets, Roses, and Water-lillies, of each one pugil: boyl them in a pint and an half. Dissolve in the straining, Syrup of Violets, Jujubes, and Poppies, of each one ounce and an half: Sal prunellæ half an ounce: make a Julep for four Doses to be taken twice in a day.*

Emulsions also may be used although they be Diuretick, because they cool and clense the passage of the Bladder. Make them thus:

Take of *the four great cold Seeds, and white Poppy Seeds, of each three drams: sweet Almonds blanched and infused in cold Water half an ounce: beat them in a stone Morter, powring on by degrees the Decoction of Barley, Liquoris, Purslain, and Mallow tops one pint and an half: make an Emulsion for three Doses, adding to each Dose one ounce of the Syrup of Violets, and one dram of Lapis prunellæ, and if the pain be great add a little Syrup of Poppies, and one dram of Gum Arabick in pouder, or the Syrup of Marsh-mallows, according to* Fernelius, *or of Mucilages.*

You may make Broths thus:

Take of *Marsh-mallow Roots half an ounce: Mallows one handful: Liquoris half an ounce: Quince seeds one dram: boyl them with Chicken Broth: make it often.*

The Whey of Goats Milk is very good given in great draughts, as we said in the hot distemper of the Liver.

And if there be no Feaver, you may with more profit give Milk by it self, because it doth not only clense, but allay pain, and temper the sharpness of the Humors.

In

In an old Disease, it is good to give Mineral Waters that cool, especially Allum, Iron, and Vitriol Waters; for by Experience we find that they have cured this Disease when it hath been inveterate.

Instead of the aforesaid Juleps, the simple Decoction of Mallows, with Syrup of Violets, may be used; by which *Forestus* saith, Obs. 4. Lib. 25. he cured a grievous Dysury many times, and that there is nothing like it.

Forestus also Obs. 3. of the same Book, that an Apothecary cured himself and others, with the white of an Egg beaten with Rose Water.

He also reports that a woman cured an old man of *Delf*, with Chamomel flowers boyled in Milk.

Amatus Lusitanus, 58. Curat. Cent. 6. saith that a Woman was cured when all means failed, with Conserve of Mallow flowers; she took one ounce morning and evening, and drunk after it three ounces of Mallows Water. And Curat. 59. he saith that one who had a Dysury, after he had voided a stone was cured by the same in three daies. The Conserve of Marsh-mallow flowers, is of the same or greater Vertue.

Some commend the Troches of Winter Cherries given with convenient Liquor, the quantity of a dram, because they are Diuretick, abate sharpness and pain.

When the pain is very great, it is good to put the Yard when you piss, into warm Milk, or a Decoction of Mallows and white Poppy seeds, or warm Water only.

A smal Decoction of Mallows with Syrup of Violets and Conserve of Roses, is good for ordinary Drink.

You may also make Injections into the passage of the Bladder, of Milk, or of an Emulsion of cold Seeds, Plantane Water, or Whey, with the Water of a white of an Egg beaten, or one scruple of the Troches of Winter Cherries.

External Medicines are also good, as Baths, half Baths, Fomentations to the Privities made of cool Herbs, Liniments of Oyl of Roses, Water Lillies, Unguent of Roses, *Galens* cooling Ointment, Populeon with Camphire, and the Mucilage of Fleabane made with Plantane Water. Also you must apply Epithems that cool to the Reins and Liver, and the aforesaid Liniments, and the things mentioned formerly for the same.

When sharp and cholerick Humors flow from the Liver, you may derive by an Issue in the right Leg, or by opening the Hemorrhoids, which is very good in al diseases of the Reins and Bladder; according to that of *Hippocrates*, Aph. 11. Sect. 6. because from the Spleen Vein called *Ramus Splenicus*, there are branches go to the Reins, Bladder, and Hemorrhoids.

The End of the Fourteenth Book.

THE FIFTEENTH BOOK OF THE PRACTICE OF PHYSICK.

Of WOMENS Diseases.

The PREFACE.

THose are called *Womens Diseases* which are proper to them only, and come from the defect of that part which is distinct in them from men, viz. the *Womb*; of which Democritus *in his Letter to* Hippocrates *said that it was the cause of six hundred miseries, and innumerable Calamities. But we to lay down those Diseases of the Womb which are most usual, will divide them thus: Some come from the Vessels, and some from the Body of the Womb, or Cavity; others are in respect of its chief and noblest act of Generation. From the distemper of the Vessels of the Womb, and the preternatural causes, come* Chlorosis, *or green Sickness, stoppage of the Terms, immoderate Flux, the Whites, Rage of the Womb, and the Mother. In the Cavity of the Womb are, Inflamations, Ulcers, Scirrhus, Cancer, Gangrene, Dropsie, coming forth, and shutting up thereof: these may hinder Generation but by accident. The Diseases which are in respect of Conception, Breeding, and Bringing forth, are, Barrenness. acute and Chronical Diseases of Women with Child, Abortion, difficult bringing forth, dead Child, Secundine retained, immoderate flux, or suppression of blood, and the acute Diseases of women in Child-bed. All which Diseases we will speak of in as few words as the dignity of the Matter will permit.*

Chap. 1. *Of the Green-sickness, called* Chlorosis.

THis Disease by *Hippocrates*, is called *Chlorosis*; by the Modern Physitians, the white Feaver, the Virgins Disease, the Pale color of Virgins, the white Jaundice, but vulgarly the Green-sickness.

It may be defined thus: An evil habit of Body from the Obstruction of the Veins of the Liver, Spleen, and Mesentery, and especially of those which are about the Womb, which is accompanied with a heavines or unwildines of the whol Body, beating of the heart, difficulty of breathing, a desire of evil Food, and the like.

This

This Diſeaſe depends immediately upon the Obſtruction of the parts in the lower Belly, eſpecially of thoſe Veins which are about the Womb, whereby the free paſſage of Blood to the Womb is hindered, which abounding in Virgins when they begin to have their Terms, and being hindered of its Natural courſe by thoſe Obſtructions, runs to the upper parts, and oppreſſeth the Heart, Liver, Spleen, Diaphragma, or Midriff, and other parts, deſtroyes their Natural heat, ſtops the Veſſels; hence is there an evil Concoction in the Bowels, and from thence their Body is ful of Crudities, which being carried forth, make an evil Habit. In other parts they produce divers Symptomes in the Hypochondria, a ſwelling of the Bowels, by which the Midriff is oppreſſed, which cauſeth ſhortneſs of breath. And becauſe groſs blood and wind are carried by the Branches of the hollow Vein, and great Artery into the Heart, which contend againſt them for fear of Suffocation, by often moving of its Arteries, there is a palpitation of the Heart, and often a beating in the Temples. Beſides, they have in this Diſeaſe a loathing of meat, becauſe the Stomach is filled with crude Excrements by reaſon of its evil Concoction and diſtribution: which excrements having gotten an evil quality by a peculiar kind of corruption, cauſe a deſire of evil meats, and things not ordained for nourithment; as Salt, Spices, Chalk, Coals, Aſhes, and the like, which Diſeaſe is called *Pica Malacia*, or ſtrange Longing, which we have at large ſpoken of in its proper place, among the Diſeaſes of the Stomach.

The Cauſes of the Obſtructions in the Veins of the Womb, and the Hypochondria, are thick, ſlimy, and crude Humors, coming commonly from evil Diet: for theſe Virgins drink great draughts of Water at bed-time, or in the morning faſting; or eat Vinegar, Herbs, unripe Fruits, Snow, or Ice; hence it is that they loſe their Natural heat, and there is abundance of crude Excrements. Others ſleep too much, or are very idle, as Seamſters, which by ſitting ſtil al day are very cold. Others watch too much, and uſe unſeaſonable exerciſe, as dauncing preſently after meat, and to continuing with their Sweet-hearts all night. Moreover, they have great cares and diſturbances of mind by which the Concoction is deſtroyed, and the Body filled with evil Juyces.

The Knowledg of this Diſeaſe is eaſie from the Symptomes following:

Firſt, The Face and all the Body is pale and white, ſomtimes of a Lead color, blew, or green; for crude, flegmatick, and ſerous Humors abounding, and being carried to the habit of the body, do diſcolor it; and if Choller or Melancholly be mixed with that flegm, the color wil be yellowiſh, greeniſh or blew.

The Second is, Swelling in the Face and Eye-lids, eſpecially after ſleep, becauſe the motive heat being cloſed and contracted at night, raiſed more vapors than it could diſcuſs. The Leggs alſo and Feet, eſpecially about the Ankles, and the whol Body is looſe and ſoft by reaſon of the abundance of flegm.

Thirdly, Heavineſs and Idleneſs in the whol Body, a lazy ſtretching forth of the Leggs from the Humors being fallen down.

Fourthly, There is difficult breathing, eſpecially when they move themſelves, or go up Hils or ſteep places, then the thick blood grows warm, and thence ariſe many vapors, which cauſe ſhortneſs of breathing.

Fifthly, There is Palpitation of the Heart and beating of the Arteries in the Temples when the Body is exerciſed, by reaſon of the ſame evaporation, which is raiſed from thick Humors heated by Exerciſe.

Sixthly, There is often a great Head-ach, and ſomtimes in the hinder part of the Head, when the Womb ſuffers; but in the Forehead when the vapors ariſe moſt from the Hypochondria.

Seventhly, The Pulſe is ſwift and quick, as if they were in a Feaver, and therefore this Diſeaſe is called the white Feaver, by reaſon of the quickneſs of the Pulſe, which is ſo for this reaſon; The vital faculty being weak, makes the Pulſe little, therefore Nature ſupplies the ſmalneſs of it with often beating.

Eightly, The ſleep is very ſound, they ſleep til midnight, except they be forcibly awaked; and this is from many thick vapors which ariſe from the filthy flegm.

Ninthly, There is a great loathing of wholſom meat, by reaſon of the great collection of Crudities in the Stomach and parts adjacent; and theſe Humors when they grow worſe, cauſe the Pica, or longing for things that are not to be eaten.

Laſtly, When the evil encreaſeth, and the Obſtructions are multiplied, the Terms ſtop, which ſhews the Diſeaſe to be at the height, and confirmed.

As for the Prognoſtick: That Diſeaſe commonly is not dangerous, and continueth a long time. But if it be too much neglected, and ſuffered to take root, ſo that the Nouriſhment is hindered, there follow great Diſeaſes of the Natural parts, as Scirrhous and other Tumors, and corruption of the ſubſtance of them, which cauſe death, by Dropſies, long Feavers, and the like.

When the Diſeaſe is leſs, and comes only from the Obſtruction of the Veins of the Womb, in yong women it is cured by Marriage.

Women

Women that have long been in this Disease, either are barren, or their Children are diseased, and weak.

There is great hope of recovery when the Terms keep their ordinary course, and their due quantity and quality.

The Cure of this Disease is by opening Obstructions, by emptying of the filthy Humors from the whol Body, and correcting the distemper of the Bowels, and strengthening of them.

The Obstructions are taken away by the Medicines which were mentioned in the Cure of the Obstructions of the Liver and Spleen, adding some things which respect the Womb, and that are more proper to open those Veins.

First then, give a purging Medicine agreeable to the Patients temper, made of gentle things, to clense the first Region only, and a Clyster before it, if the Body be bound.

Then open a Vein, if the Disease be not very old, and the Maid very much without blood, and inclining to an evil habit. Let the Vein of the Arm be opened first, although the Terms be stopped; for if then you draw blood from the Foot, the Obstructions of the Veins of the Womb will be greater by their fulness. And if the Liver be most stopped, take blood from the right Arm; if the Spleen from the left.

After you have bled sufficiently, you must give an ordinary Purge, by way of an Apozeme, such as was prescribed in the Cure of the Obstructions of the Liver. To which you may add some Herbs that are proper to the Womb, as Mugwort, Feaverfew, Peny-royal; and if the Spleen be stopped you may add proper things for that, as Capar barks, Ceterach, or Spleenwort, Harts-tongue. If the temper be Chollerick, and there be signs of a hot and dry Liver, you must take all the hot simples out of the Apozeme, and put in cold openers instead thereof.

For the more delicate Virgins, instead of Apozemes, you may give the Broths prescribed in the aforesaid Cure of the Liver, and change the simples as we said of the Apozeme.

In the mean while you may use Fomentations and Liniments prescribed in the same Chapter, not only to the Liver, but to the Spleen and Womb.

After Purging, make this Bath following, to open and loosen the Vessels, and to dissolve and digest the Matter causing Obstructions, which are of such force that we have known somtimes the Terms to begin to flow at the third or fourth bathing, when they have formerly been long stopped.

Take of *Marsh-mallow Roots, Lilly Roots, Elicampane, Briony, wild Cucumer, of each two pound: Mallows, Violets, Mercury, Penyroyal, Feaverfew, Balm, of each four handfuls: Linseed and Fenugreek beaten, of each two ounces: boyl them in spring Water for a Bath. Let her go into it warm twice in a day, not sweating, long before and after meat, for two daies, renewing each day the Decoction.*

The day after the last Bath, if the Terms be stopped, let the lower Veins be opened, and take away three ounces of blood: and this may be done twice or thrice at that time, in which the Terms used to flow. Or if they never did appear at that time in which the Patient is most afflicted.

After these Medicines to strengthen the Bowels, and to wear away the reliques of the Obstructions, an opening and strengthening Opiate wil do very wel, described in the place mentioned; to which you may add two drams of *Fæcula Brioniæ*, and as much of Salt of Mugwort.

But because somtimes the Obstructions are so great that they wil not presently be cured, you must make a Magistral Syrup of the Ingredients to the Apozeme before mentioned, with an encrease of the purging Medicines in quantity, and let the Patient take it twice or thrice in a month.

The ordinary Pils mentioned in the Cure of the stoppage of the Liver, are most excellent; to which you may add the Medicines there mentioned, of Tartar, Vitriol, and Steel.

Zacutus Lusitanus, Observ. 99. Lib. 2. reports of a certain Woman which had the Green-sickness ten yeers with stoppage of her Terms, and could not be cured with divers opening and purging Medicines, and some made of Steel, that he cured her with nothing but Conserve of Mugwort, given thirty daies together, drinking after it the distilled Water of Savin, in which Rhubarb had been a whol night infused.

The same *Zacutus*, Observ. 117. Lib. 3. tels of a Virgin, which eating much Salt every day, fell into a Diarrhœa of Choller, mixed with a Consumption, which he cured after general Medicines, with Goats Milk steeled, and cold things applied to the Liver.

In the greatest Obstructions, an Issue made in the right or left Legg, as the Liver or Spleen is affected, is very good.

After the Obstructions are opened, you must discuss the flegm like serous humors that remain in the Veins, and in the habit of the Body by sweats; for which you must use the Decoction of Guajacum in cold Constitutions, or of China and Sarsa in those that are hot, for fifteen or twenty daies; with this Caution, That every fourth or fifth day, you give a Purge to clense the Bowels of Humors which cannot be sent forth by sweat; and which if they continue wil grow hard and putrefie, and be the occation of Feavers, and other Diseases. For this Purpose you may use Brimstone Baths, both for drink and bathing: for by the drinking thereof, when the passages are first open by the Medicines aforesaid,

aforeſaid, the Humor that is contained in the firſt and ſecond Region of the Body, is clenſed and ſent forth by the belly and urine; and the third Region is clenſed by ſweating in them.

And laſtly, Copulation, if it may be legally done, after the uſe of opening Medicines, is very good; for thereby the Natural heat is ſtirred up in parts Natural, by which the Veſſels of the Womb are much enlarged. And Experience teacheth, that ſomtimes theſe Women have their Terms the firſt night after Marriage, and that others who are in good health, have them before their accuſtomed time.

Chap. 2. *Of the ſtoppage of the Terms.*

THe Terms are ſaid to be ſtopped, when in a Woman ripe of Age, which gives not ſuck, and is not with Child, there is a ſeldom, ſmal, or no evacuation of blood by the Womb, which uſed to be every month.

The cauſe of this ſtoppage is either in the Womb, or in its Veſſels, or in the blood which comes, or ought to come that way.

Divers Diſeaſes of the Womb may cauſe this Diſeaſe; namely, a cold Diſtemper, and dry, which thickeneth and bindeth the Body of the Womb; or a hot and dry diſtemper by drying the part, or burning up the nouriſhment thereof, from whence come evil humors, which being faſtened in the part, hinder the Terms from flowing. Alſo the Organical Diſeaſes of thoſe parts, as inflamation, or ſcirrhus, the turning of the inward mouth thereof, or compreſſion from the Tumors of the parts adjacent, or the Omentum or Caul growing too thick. The thickneſs of the Womb it ſelf, Ulcer, or Scars, which they leave, or from the tearing of the Cotyledones, or Mouths of the Veſſels, in a great Abortion.

The Veſſels of the Womb do often ſuffer Obſtruction, which is the chief cauſe of ſtopping of the Terms, and they come from cold and thick Humors: ſomtimes there is a ſuppreſſion of thoſe Veins by binding of them, and that is from the parts adjacent being ſtretched and ſwoln, as we ſaid in the binding or cloſing of the Womb.

The blood offending either in quantity, quality, or motion, may be a cauſe of the obſtruction of the Courſes. It offends in quantity, when it is too much or too little; too much, when it ſtretcheth out the Veins, ſo that they cannot contract themſelves to expel it; as in the bladder when it is too full of Urine, it cannot contract it ſelf to ſend it forth; too little, when the Body hath not blood enough to nouriſh it.

The blood offends in quality, when it is thicker, and more ſlimy of its own Nature, by reaſon of the cold diſtemper of the Liver, and other parts, or from the mixture of thick and flegmatick or melancholick humors, from whence commonly Obſtructions come.

The blood offends in motion, when it paſſeth other waies, as by the Noſe, vomiting, ſpittle, urine, hemorrhoids, and many other parts. I ſaw a Maid who had a Sore in her head, which opened every month, and bled plentifully; and we have ſeen many that have ſent forth blood at fixed times by their Lungs; and this evacuation was inſtead of a Menſtrual flux.

The external Cauſes, are cold and dry Air, Northern winds, often going into cold water, eſpecially in the time of their flux; too little or two much meat, either too thick and cold, or too aſtringent; alſo hot things, as too much Salt and Spice, by drying of the ſubſtance of the Liver, and other parts, and by drying up the blood, by which it groweth thick, and fit to ſtop; violent exerciſe and watchings, which do conſume the blood; long ſleep, and idleneſs, which do weaken the Natural heat, and cauſe Crudities; too long retaining of Excrements; by uſual bleeding at the Noſe, Hemorrhoids, Diarrhœa, and other evacuations by vomit, urine, or ſweat; and laſtly, great paſſions of the mind, anger, ſudden fear, ſorrow, jealouſie, and the like.

The Knowledg of this is to be taken from the Patients relation; but becauſe it comes either from Natural or Preternatural Cauſes, we ſhal lay down ſome diſtinguiſhing ſigns, leſt the Phyſitian be deceived by Women that would diſſemble their being with Child, and leſt he ſhould raſhly preſcribe Medicines to provoke Terms to Women with Child.

Firſt, If they be with Child, they have commonly their Natural Complexion; but others are pale and ill colored.

Secondly, The Symptomes which Women with Child have at the firſt, do dayly decreaſe; but in others ſtoppage of the Terms, by how much the longer the Terms ſtop, by ſo much the more the Symptomes encreaſe.

Thirdly, In Women with Child, after the third Month, you may perceive the Scituation and Motion of the Infant, by laying your hand upon the inferior Belly; in others there is a Tumor to be felt,

but

but it is ædematous or flegmatick, not hard; neither is it proportionable to the Womb.

Fourthly, If a wise Midwife touch the inward Mouth of the Womb, it will not be so close shut as in women with Child, but rather hard, and contracted, and full of pain.

Fiftly, Women with Child are commonly merry, and little disturbed; but when the Terms are otherwise stopped, they are sad and sorrowful.

The Signs of the Causes are these:

The faults of the Womb which use to cause stoppage of the Terms, shal be laid down in the following Chapters; but the greatest part of them is found out by touching, seeing, and relation of the Patients.

The Obstruction and straightness of the Vessels of the Womb are known by pain in the Loyns, and parts adjacent, especially in the time the Terms should flow, and if any thing flow at that time, it is slimy, white, and blackish. Now the Diseases of the adjacent parts, which may shut the mouth of the Womb, or the Veins, will appear by their proper signs.

You may know the abounding of blood in the Veins, by the swelling of the Veins in the Thighs and Arms, especially if the Woman be fleshy and red, and have fed high. You may suppose there is want of blood, if the Woman be fat, if she have had a long Feaver went before, or loathing of meat. The evil quality of the blood is known by the evil habit of the Body, by the distemper of the Liver, and other parts, and especially by the blood it self, if you can see some of it. The prepostrous motion of the blood, when it flows another way, is manifest of it self.

As to the Prognostick. The stoppage of the Terms is very dangerous, and many great diseases come thereof, and some in the Womb it self, as swellings, imposthumes, and Ulcers; others in the whol Body, and divers parts thereof, as Feavers, Obstructions, evil Habits, Loathing, Dropsie, Heartach, Cough, short Breathing, Fainting, sore Eyes, Madness, Melancholly, Headach, Joynt-gout, and the like. *Hippocrates*, *Lib.* 1. of Womens Diseases, hath shewed the encrease of Diseases from the stopping of the Terms, in these words. *The third month after the stoppage of the Terms, they begin to feel suffocations, or shortness of breath, with horrors, heaviness of the Loyns, and sometimes a Feaver.* But if it last long, the Belly grows hard, they pis much, they loath meat, and watch much, they grate their Teeth in sleep; and if they continue longer stopped, the pains will be greater; but in the sixth month, that Disease which was formerly curable, will be then incurable: then she wil be troubled in mind, and faint, vomit flegm, thirsty, the Belly about the Privities will be pained, there will be a Feaver, and the Body bound, and the Urine stopped, the Back will ach, and she will stammer. After wards the Leggs, Feet, and Belly will swell, and the Urine be red, bloody, and pain over all the Body, especially the Neck and Back-bone, and Groyns, and so they die of a Dropsie. Thus far *Hippocrates*. But here is a doubt, because the Author saith, That in the sixt month the Disease is incurable, when Experience teacheth the contrary: and *Hippocrates* himself, 4. Epid. reports that a Maid who had her Terms stopped for seven Yeers, was restored to health by the return of them. *Hippocrates* may be reconciled to himself, by saying, That after six months the Disease is incurable, when the Terms are in the Body or Cavity of the Womb, because there they putrefie, and come to suppuration, as in the After-birth, or Blood retained. But this is not to be understood of every Suppuration.

That Stoppage is least dangerous which comes from plenty of good Blood, or fat, bleeding, or other Evacuations, because those Causes may easily be removed.

That is harder to be cured which comes from heaviness of Humors, Obstruction of Vessels, or straitness, because that stubborn Humor, getting into the innermost passages, cannot be got forth but by long pains and Medicines, which Women are very unwilling to receive.

That stoppage which cometh from the distemper only of the Womb, is worst, because the part being hurt by propriety is hard to be cured by reason of the continual flux of Humors, which the part is disposed to receive, and therefore is called the Jakes of the whol Body.

The Cure of this Disease is divers, according to the variety of the Causes. And first, if it come from too much blood, you must abate the quantity by Phlebotomy in the Arm; for if the lower veins should be first opened, the blood would be drawn more to the Womb, where it would make greater obstruction and distention of Vessels, and break them, or cause Inflamation of the Womb.

After the Plethory, or abundance of blood is taken away, you must draw the blood down by opening the lower Veins about the time that the Patient used before to be cleansed, as also by Frictions, Ligatures, Cupping-glasses, dry, and with Scarrification.

These things done, you must relax and soften the parts of the Womb with Fomentations, and Baths, and moistening Unguents; which if they cannot master the Disease, you may give Hysterical Purges, and such as do properly provoke the Terms, which we shal after describe, using the mildest.

If want of Blood be the cause, as after long Feavers, great Evacuations, and Extenuation of the Body, you must not provoke them till you have used Restoratives, and blood be renewed, and whatsoever

ever is the cauſe of extenuation be removed; which things being done, the Terms do commonly flow of themſelves; which if they do not, but Nature forgets her office, you muſt open the interior Veins, and uſe the Medicines afore mentioned, ſo that you take not away too much blood, becauſe the ſtrength is little, and leſt the Patient fal into a Conſumption. But here you muſt diligently mark, That every extenuation of the body doth not ſignifie want of blood, but only after great evacuations & conſuming Cauſes; for it comes to paſs ſometimes, that the Terms ſtopt in the Veins get an evil quality, which makes the blood unfit to nourish: hence comes leanneſs, although the Veins be filled with much bad blood, and then large bleeding is very good, as *Galen* confirms, Comment. 3. in Lib. 6. Epid. *I* (ſaith he) *cured a Woman that had her Courſes ſtopped eight months, when ſhe was lean by drawing much blood; as alſo others. But what happened to that famous Woman was remarkable; I opened a Vein when other Phyſitians feared the ſucceſs, and were againſt me, ſaying that it muſt hurt her, not only becauſe ſhe was lean, but alſo becauſe ſhe had no ſtomach to eat. But theſe young Phyſitians had a more Sophiſtical way, to obſerve what happened to the Patients, and to neglect the affects and Cauſes, which are the ground of Cure. I took (to my beſt remembrance) the firſt day, a pint and an half of blood from the woman; the next day one pint; the third, not above half a pint, or eight ounces.* Thus *Galen*. By which it is manifeſt, That from lean women, of this diſeaſe, you may take a great quantity of blood, although the women of our Age will not endure it.

The ſtoppage of the Courſes comes from a prepoſterous motion of the blood, when it is ſent forth by the Noſe, Vomiting, ſpitting, or Hemorrhoids, and the like: The Cure is by repelling it from thoſe parts, and bringing it to the paſſage of the Womb. Firſt (while they bleed) you muſt waſh Arms, Head, and Face, with cold Water, and keep them from the uſe of thoſe parts, eſpecially loud ſpeaking; then you muſt open a Vein beneath. Two or three daies before they bleed, apply Cupping-glaſſes to the Thighs and Calves of the Leggs, ſometimes dry, ſometimes with ſcarrification; by provoking the Hemorrhoids, by Frictions, Ligatures, Walking, Fomentations, Baths of opening Herbs, Oyntments, Peſſaries, Clyſters for the Womb, and the like, which ſhall be deſcribed hereafter. The uſe of a Natural Bath is principally commended, if it be of Brimſtone or Bitumen; into which let the Patient go often, long before, and after meat, not above the Waſt, and at the ſame time, let the upper parts be cooled with a Fan, leſt by the heat of the Bath, they alſo wax warm.

If Blood flow from the Hemorrhoids being diverted from the Womb, it is hard to be cured; for if you uſe Attractions to the lower parts, they will go by ſtool, and if you uſe Aſtringents below, they will repel from the womb by the neerneſs of parts. Therefore there is no way of Cure but this, That after you have uſed Attractive things beneath, you apply Topical Medicines to the Womb, which may draw the Humor now in motion, more unto the Womb.

But that Suppreſſion of the Courſes is of all other moſt frequent, which is cauſed by obſtruction of the Veins of the Womb. The Cure whereof, is in a manner the ſame which hath been propounded in the Caſe of Pale and diſcolored Virgins, ſome things only being added, which do more ſpecifically reſpect the Womb.

In the firſt place therefore, All thoſe things may be uſed in their order one after another, which have been preſcribed for the Cure of the Green-ſickneſs. And for the moſt part it falls out that the Obſtructions of the Bowels being opened, the Courſes flow of their own accord: whoſe Eruption may yet be furthered by the uſe of ſuch things as cauſe the Humors to work downwards; as opening of the Interior Veins, about that time when the Courſes have been wont to come down; or inſtead of Blood-letting, Cupping-Glaſſes faſtened unto the Hips and Ankles, both without and with Scarrification, frictions of the ſame parts, and painful bindings.

If the Diſeaſe be ſo rebellious as not to give way to the former Remedies, we muſt proceed to ſuch as by a proper and ſpecifical vertue, do move the Courſes, which are wont to be uſed under divers forms. And in the firſt place, moſt effectual Pouders, and grateful to the Taſt, are thus made:

Take *Cinnamon and Amber, of each one ſcruple: Saffron half a ſcruple. Mix all, and make them into a Pouder, to be taken divers mornings one after another.* Or,

Take *Pouder of the Roots of Madder, ſuch as Diers uſe, and Sugar Poudered, of each one ounce. Mix them, divide all into three parts; of which, give one at the time in which the Courſes ſhould flow, early in the morning in hot Wine, while the Patient is yet in her bed; wherein let her continue five hours, well covered with cloathes. If her courſes ſhall not flow the next courſe of the Moon, at the wonted time, give her the ſecond part: If yet they come not, give her the third part at the third return of the time of her Courſes.* Or,

Take *Roots of round Birthwort half a dram: Savin Leaves dried one dram and an half: Dictamnus Cretenſis, and Troches of Mirrh, without Aſſafœtida, becauſe of the ſtrong ſmell, of each one dram: Elect Cinnamon two drams: white Sugar two ounces. Make all into a moſt fine Pouder, of which let her take two drams in the morning for certain daies together, with broth of red Veiches, wherein two drams of Cinnamon, and half a dram of Saffron have been boyled.*

Most excellent Pills are made after this manner:

Take *Troches of Mirrh one dram: Castorium half a scruple. With Juyce of Mugwort make smal Pills.*

Among familiar Medicines easily provided, are accounted the flowers of Lavender eaten with Honey many daies together, or Conserve of Mary-gold flowers, given to the quantity of two drams at a time.

The Blood of a wild Goat, and likewise of a tame one, hath mighty vertue to bring down the stopped Courses, according to that preparation and dose propounded in our Cure of the Pleurisie.

In hot Constitutions, Cream of Tartar used many daies together in Broth, or some Melancholly-driving Decoction, does further the Courses stopped.

But the Pills of *Montagnana* are mightily praised, being thus compounded:

Take *Troches of Mirrh one dram and an half: Parsley seed, Castorium, Cinnamon, of each one scruple: Musk ten grains. With Juyce of Smallage form all (being poudered) into twenty two Pills, gilt with Gold. Let her take two in the morning, or at her entrance into bed, for some daies together.* Or,

Take *Madder Roots, and round Aristolochia, or Birthwort, of each three drams: Agarick and Cinnamon, of each one dram: Saffron one scruple: With Juyce of Mugwort, make a Mass of Pills; whose dose is one dram.*

Old Leven is commended by many, the quantity of a Chesnut, with the same quantity of Sugar, given three daies together. Yet it will do more good, if pouder of the Troches of Mirrh, Dictamnus, or some such like be mixed therewith.

The most usual and profitable Decoctions are made in this manner:

Take *Roots of Parsley, and great Madder, of each two ounces: red Vetches four pugils: boyl them to a pint and an half. In the strained Liquor boyl Cinnamon Pouder one dram: Saffron half a dram: Honey as much as shall suffice: mix them. Let her take six ounces warm, in the mornings twice a day, before her Courses break forth, or when they begin to flow, if they flow but sparingly.* Or,

Take *Roots of Smallage, Asparagus, Fennel, of each one ounce: Feaverfew, Maiden-hair, Nep, Peny-royal, of each one handful: Boyl all to a quart. To four ounces of the straining, ad one ounce of Syrup of Mugwort. Let her drink it hot twice a day as before.* Or,

Take *Cyperus Roots, Angelica, Valerian, and Madder of the Diers, of each half a dram: Leaves of Mugwort, Peny-royal, Savin, of each half a handful: Seeds of Carrots and Seseleos, of each one dram:* Dictamnus Cretensis *one dram and an half: Choyce Cinnamon four scruples: Saffron one scruple; make a Decoction to four ounces. In the straining add Syrup of Mugwort and Hyssop, of each half an ounce: make a Julep for one dose. Let her take it every other day.*

Quercetanus in his *Pharmacopœia*, doth exceedingly commend two Decoctions: the first of which is thus made:

Take *Gromwel seed, Annis seed, Misselto of the Oak, of each three drams:* Dictamnus Cretensis *one dram: Saffron one scruple. Beat what is to be beaten, and steep all in rich white Wine twenty four hours: afterwards let them boyl a little. Of this Decoction give the Patient four ounces.*

The other Decoction is thus described:

Take *the whol Spleen or Milt of an Ox: cut it in bits, and put it in a capacious Glass, so as it may fill the Glass half full, adding of Cinnamon grosly poudered, one ounce: Cloves half an ounce: Saffron two drams: of the best white Wine as much as shall suffice only to moisten all that is in the Glass. Let the Glass closely stopped, be put into a* Balneum Mariæ *exceeding hot, so that it boyl twenty four hours together, until the Spleen shall be boyled and consumed into little crums, and there remains a great quantity of Broth excellently well boyled, and of a very fragrant smel; of which let the Patient take in the morning four ounces, continuing the same for four or five daies, when her Courses ought to flow.*

Distilled Waters ought to be preferred before other Liquors, as being more pleasant to the taste: and because of their subtil thinness of parts, they pierce more easily to the obstructed Vessels of the Womb.

The Preheminence above all the rest, is by *Mercatus*, *Rodericus a Castro*, and *Sennertus*, given to this following:

Take *a Loaf almost as sowr as Leaven, indifferently baked, and hot; take away the Crust, and add thereto, of Honey twelve ounces, Pouder of Nettle seeds, Carrot seeds, Amy, Annis and Fennel seeds, of each one dram: Troches of Gallia Moschata, red Mirrh, of each one scruple: Cotula fœtida, or stinking Fennel, half a dram. Infuse all in three pints of the Decoction below described, which is made of red French Beans, and red Vetches, of each half a pugil: Juniper berries one ounce: Roots of Madder, Butchers Broom, wild Rhadish, Asparagus, Smallage, and Parsley,*

Parſley, of each two ounces: Green Germander one handful: Seeds of Amy, Annis, and Fennel, of each two ounces: Boil all according to Art. Then ſtil the liquor out in Balneo Mariæ; *of which give to the Patient two ounces early in the morning. Alſo there may be added Syrup of Maiden-hair, of Opening roots, of Mugwort. Alſo the Doſe may be augmented, the following daies, if the Stomach be not offended.*

A Decoction of Guajacum or Saſſafras is good in flegmatick bodies, alſo Dictamnus Creticus may be added; taking the ſame twelve or fifteen daies without ſweating. *Facchinus* relates an Experiment thereof, writing upon the ninth of *Rhaſis*, Chap. 66. I boiled (ſaies he) the Indian wood, and added Dictamnus thereto. By which I procured both her Courſes, and Child-bearing to a Woman which had wanted her Courſes five years, and had been Barren.

The Chymiſts commend Tartarum, Vitriolatum, Spirit of Tartar, Mixtura Spiritalis, Salts of Mugwort, Bawm, Celondine roots, and Valerian.

This Treacle-Water following is mervailouſly effectual to this intent.

Take old Venice-Treacle five ounces, Red Alexandrian, Mirrh two ounces and an half, Elect Cinnamon, Oriental Saffron, of each half a dram; Camphire two drachms. Pour upon them of the beſt Spirit of Wine, till it ſtand three fingers breadth above the Ingredients, and draw out the Tincture with a gentle heat, whereunto being poured off without ſtraining, add a ſixt part of the Spirit of Tartar; The Doſe is one ſpoonful with ſome appropriate Water, or Wine.

Whilſt the aforeſaid Remedies are in Uſe, Clyſters frequently injected are exceeding good, becauſe the Womb does reſt upon the ſtraight Gut, or *Inteſtinum Rectum*; and they may thus be compounded.

Take roots of Lillies one ounce, of Orice and Valerian, half an ounce of each, of Mercury leaves two handfuls, Mugwort and Savine of each one handful, Chamomel flowers and Lavender, of each one pugil, Seeds of Caraway and Nigella of each one dram; boil all to one pint. In the ſtrained Liquor diſſolve of Hiera ſimplex, and Benedicta Laxativa, of each half an ounce, Oleum Cheirinum two ounces, Electuarium de Baccis Lauri half an ounce. Mix all into a Clyſter,

Yea, And the truth is Purgations repeated at certain convenient ſeaſons will be very good, which may be in divers manners prepared.

And in the firſt place *Galen* exceedingly commends the Pils of Hiera, ſimple and compound; becauſe over and above their purging of ſuperfluous humors, they have a faculty of opening the narrow paſſages, and of cleanſing the Womb. Or,

Take Aloes three drachms: Maſs of Cochie pills one drachm, with juice of Savine forme twenty pills; of which give the Patient three before dinner, every third day. Or,

Take Aloes one drachm: Choice Rhubarb one drachm and an half: Diagrydium one ſcruple: Mirrh and Aſarum roots of each half a drachm: Spicknard one ſcruple. With Syrup of Mugwort make a Maſs of Pil-Paſte. The doſe is from two ſcruples, to a drachm, made into pils. Or,

Take of the Maſs of Cochie-pil-paſte half a drachm: Mercurius dulcis *twenty grains, with Syrup of Roſes ſolutive forme eight pills, or ſix, Let her ſwallow them early in the morning.*

Alſo outwardly, the Courſes ſuppreſt, are wont to be holpen with theſe Topick Medicaments following, which muſt be outwardly applied, to widen the paſſages, make thin the humors, and to rouſe and awake the Expulſive faculty.

Take roots of Briony, Lillies, Cyperus, Valerian, Angelica, Aſarum, Orice, and of Parſly, of each an ounce: Leaves of Mugwort, Baies. Rue, Savine, Time, Roſemary, Penyroyal, Nep, Mallows, Mercury, of each one handful: Flowers of Elder, Cheiri, Chamomel, of each two pugils: Juniper berries two ounces: Boil all in Water and white Wine, with the ſtrainings, let the Patients belly and the parts about the Privities be fomented with a ſponge.

With the ſame Decoction, the Quantity of Ingredients being augmented, may be made a Bath to ſit in; wherein the Patient may ſit up to her Navil, and the boiled Herbs being put into a bag muſt be applied to her belly. But let her take heed of ſweating, which doth ſtop the Courſes.

Take Oyl of Lillies, Dill and Rue, of each one ounce and an half: Generous Wine three ounces: Saunamh, roots of Bindweed, Angelica, the two Birthworts and Savin leaves of each half an ounce. Let them boil till the Wine be conſumed. Let them be ſtrained and the Oyl preſſed out, wherewith warmed, let the ſhare and parts about the Privities be anointed, after fomentation, or ſitting in the Bath.

Moiſt ſuffumigations are made of the Vapour of the Decoction for the Fomentation, and for the ſitting-Bath, which being moderatly heated, muſt be covered with a cover that hath a hole in it, whereunto muſt be faſtened a long pipe, which muſt reach into the neck of the Womb, through which let her receive the ſmoake morning and evening, being covered with cloaths.

A drie Suffumigation may be thus made.

Take Cloves, Cinnamon, Mace, of each two drachms: Juniper berries half an ounce: Nigella seeds one drachm: Storax two drachms. Make all into a gross powder, which being laid on Coles, let her receive the smoak into the Womb, after her manner aforesaid. Or,

Take Storax two drachms: Frankincence one drachm: Benjamin, Alipta Moschata, of each half an ounce: Cloves, Lignum Aloes, Cinnamon of each two scruples: With the Mucilage of Gum Tragacanth, extracted with Cinnamon Water, make little Cakes for to burn as aforesaid.

Pessaries may be made after this manner.

Take of *leaves of Mercury bruised one handful*: *Powder of* Hiera picra, *and* Benedicta Laxativa, *of each two drachms*: *Powder of long Birthwort one drachm*: *Honey and juyce of Mercury, as much as shall suffice, make all into a Pessary,* Or,

Take of *Agarick, Mirrh, of each two drachms*: *Galbanum half a drachm*: *Saffron one scruple*: *With clarified Honey make all into a Pessarie, which put into a warm thin rag, and conveigh into the Womb; but let it not abide long there for fear of inflamation.*

Pilulæ Cochiæ minores, brought into the form of a Pessarie, doth excellently move the Courses.

Also injections are wont to be made into the Womb, which are wont to be called Womb-Clysters; for they wash away the filth which cleaves to the sides of the Womb, and they open the internal Orifices of the Veins. Now they are made of the Decoction of the Fomentation aforesaid, leaving out the more sharp things; or with a Decoction of fat Figs, with Mugwort, Penyroyal, and Mercury; or of the juyce of Mercury alone, purified, in which a little *Benedicta Laxativa* is dissolved. For we must by no meanes use more sharp Ingredients for fear of Inflamation. Yea, and after the use of the aforesaid Injections, which ought to be retained but an hour; it will be good to Inject a Decoction of Mallows, Barley, and Violet leaves, or a little Hydromel tempered with Whey of Goats-Milk.

In an old inveterate Disease, Issues made in the Legs may do very much good. For although *Sennertus* approves not of them, because they rather derive from the Womb, and teach the humors which were wont to flow unto the Womb, to come rather that way, and hinder their inclinations to the Womb: Yet have they been found to do much good by the frequent experiences of *Mercurialis*, *Varandæus*, and others. For by those Issues the superfluous humors are continually evacuated, and the Course of the humors is guided into the inferior parts. And the derivation of superfluous humors from the Womb, is so far from hindring the Flux of Courses to the Womb; that it rather furthers the same, by making the Blood more pure, and more obedient to the command of Nature, which with the Humors aforelaid, is not drawn unto the Issues. And hereunto, that these Humors, if they be not by these waies evacuated, being retained in the Veins, they double the Obstructions, and so do augment the suppression of Courses. Howbeit, We are of opinion, that the menstrual purgations being restored to their due Course, the Issues ought to be closed up, that Nature may accustome her self to exclude superfluous Humors by the Womb.

In the Use of the Remedies aforelaid, some precepts are to be observed worthy of Note.

First, That we must never use Medicines that move the Courses, but after Universal Purgations; least the Humors being plentifully carried to the Veins of the Womb should increase Obstructions; or being much attenuated, should reach into other parts of the Body, and produce grievous Diseases. As *Schenkius* relates in his Observations, that a Physitian of *Venice* gave a Woman that wanted her Courses a certain Apozeme to move them, not having first purged her Body of Flegm; and a little after she had taken her Apozeme, she fell into a Palsey.

Secondly, That in giving such things as bring down the Courses, we must begin with the gentler, proceeding by little and little to such as are stronger.

Thirdly, That Medicaments procuring the Flux of the Courses, must be given in greater quantity than ordinary, because their vertue is abated in their long passage from the Stomach unto the Womb.

Fourthly, That the Medicaments aforesaid, are to be given either in the morning, when the Patient is fasting, or sometimes at her going into, or coming out of the Bath: For so the Medicine slipping into a warm and opened Body, doth powerfully exercise it's strength; and this it doth yet more effectually, if it be given a little before the inferior Veins be opened.

Fifthly, That Pessaries, and Womb-Clysters, or Injections, are only to be prescribed to married Women, and such as have been carnally imbraced by Men; but to Virgins we must prescribe *Nascalia* (viz. Wool dipped in the Medicament) Fomentations, Baths to sit in, and Suffumigations.

Sixtly, In Cholerick or Melancholick Constitutions, all hot Medicaments are to be avoided, and only the gentler and milder sort are to be used; and with them temperate Aperitives, or openers, as also moistning and softning Medicaments are to be mixed.

CHAP.

Chap. 3. *Of the Immoderate Flux of the Courſes.*

WOmens monthly Courſes, being moderate in quantity, and flowing in due ſeaſon, are Natural: But if they exceed in quantity, or come too often, or ſtay too long: They are to be accounted Immoderate, and beſides the intent of Nature.

The Cauſes of this Immoderate coming down of the Courſes, are the ſame which (we in it's proper place have ſhewed) do concur to Cauſe ſpitting of Blood; *viz.* An opening of the ends of the Veins, a ſoaking of the blood through the Coates of the Veins, a forcible rending of the Veins, and their being eaten through by ſharp humors; all which are cauſed by the bloods over great abundance, Heat, Thinneſs, or Sharpneſs: By ſome blow, fall, or wound: Which we have at large declared in our Speculations touching ſpitting of blood, ſo that it is needleſs here to repeat the ſame. Let the reader be pleated to peruſe that Chapter.

The Signes of this Infirmity, are either of the Diſeaſe it ſelf, or of it's Cauſe. Immoderate Flux of the Courſes is known by the il-bearing of the Patient, decay of ſtrength, want of appetite to meat, indigeſtion of Humors, ill Habit of the whole Body, colour of face like a dead Corps, ſwelling of the Legs, and other more grievous maladies, cauſed by decay of Natural heat paſt away in the Blood.

To know the Cauſes, obſerve theſe ſignes following: A thin Habit of Body, and ſoftneſs of the Fleſh, with ſuch a diet as tends to increaſe the wheyiſh, and thinner parts of the Blood; and eſpecially the Blood it ſelf appearing thin and watry, in the cloaths coming from the Patient, doth ſhew that the Blood hath ſoaked through the Veins.

That the Immoderate Flux is cauſed by an opening of the ends of the Veins, or a breaking of their Coates, is known by the Foregoing of Wounds, Falls, or Bruiſes; by the uſe of dancings, long outcries, carrying unuſual weights by a Perſon corpulent and full of Blood: By ſome foregoing great heat, extream Cold, Immoderate carnal imbraces, great Anger, and the like. The ſame may alſo happen after ſore labor in Child-birth, or by the unskilful handling of a Midwife; after a miſcarriage, or after a long ſtoppage of the monthly Blood, which makes the ſame being collected in too a great quantity, breaks out on a ſudden with violence.

That there is an Exulceration in the Womb, whereby the Veins are eaten through, appears by the Bloods dropping out by little and little with a ſence of pain and ſharpneſs; and by the Bodies being repleniſhed with ſalt and ſharp Humors. Alſo the blood which comes away, is at firſt Matteriſh, Wheyiſh, Blackiſh, or Yellow; and afterward if the Exulceration increaſe, ſome bits of the parts affected are eaten off, whereupon follows a great effuſion of Blood, hard to be ſtopped. Alſo there have proceeded ſuch things as are wont to breed bad Blood, ſuch as are the uſe of ſharp things in Diet, the uſe of Salt meates, of meates putrefied, and ſuch like.

As for the Predictions belonging to this infirmity, we are to know that, all large and long-laſting Iſſues of Blood are dangerous; eſpecially thoſe from the Womb, which hurts not only her that ſuffers them, but hinders poſterity.

That which comes by a ſoaking of the Blood through the Veins, is of al others the leaſt dangerous, as cauſing leſs expence of heat and Spirits, yet it continues longer, by reaſon of the continual ſupply of raw and Wheyiſh Blood.

The breaking of Veins, and the opening of their mouths, cauſe greater danger, becauſe they do ſuddenly Iſſue forth great quantities of Blood; yet are they ſooner cured, as happening for the moſt part, only in Bodies over ful of Blood, and otherwiſe healthy.

But of all others, that which Springs from Exulceration is moſt hard to cure, becauſe where the Ulcer is, there ſome part of the ſubſtance of the Veins is periſhed, which hinders the growing together again of that breach, whence the Blood Iſſues.

If the ſick party grow daily weaker and weaker, and the Diſeaſe ſtronger and ſtronger, it portends her death.

In an elderly Woman, over great Flux of her Courſes, is commonly incurable, and deadly.

The Cure of Immoderate Flux of Courſes, muſt be in a manner the ſame, which we have preſcribed to cure the immoderate running of the Hemorroids.

For in the firſt place, to draw the Blood from the part affected, the Patient muſt bleed in her Arm, not all at once, but by degrees, now and then ſtopping the Orifice with your finger, and then letting it bleed again. She muſt bleed plentifully, as much as her ſtrength can bear. For *Hollerius* in his Comment upon the 50. Aphor. of the 5. Sect. doth teſtifie that he hath ſeen many Women cured by large Blood-letting, when the Iſſue of their Blood, could by no other remedies be ſtopped.

Rubbings, Bindings, and Cupping-glaſſes, are good to cauſe revulſion, as in the cure aforeſaid we

have

have shewed, especially if the Cupping-Glasses be fastened upon her Dugs, according to that Sentence of *Hippocrates*; If you would stop a Womans Courses, fasten a very large Cupping-Glass unto her Dugs: Howbeit, if upon the setting on of the Cupping-glass, she grow short breathed, you must quickly take it off again.

Likewise the same Purgation may serve which we propounded in the Cure of the Hemorrhoids; and it must be reiterated once or twice in a week, until the impurity of the Bowels, and the Veins be taken away. For when the Chollerick and Wheyish Humors are taken away, which make the blood thin and sharp, it leaves running of it self. If the Wheyish parts seem most to abound, Mechoacan with Rhubarb will be a good Purge.

A Vomit likewise doth powerfully draw the Blood upwards, and is commended by *Hippocrates*, in his Second Book of Womens Infirmities. But the Vomit must be gentle, and often repeated. Also it may suffice for the Patient to put her finger into her Throat, and so procure Vomit: Yea, and the Truth is, it may serve the turn, and will be very profitable for her to provoke her self to Vomit before her Dinners, but so as not to vomit, only to use some forcing thereunto. Unto which Remedies, these which follow may profitably be added, as being tried by very learned Physitians.

Take *the Shels of two new laid Eggs burnt, Frankinsence, Mastich, of each half an ounce: Pearls prepared, red Coral prepared, and Amber, of each two drams: Blood-stone and Smaragd prepared, of each half a scruple: Barley made without Bran, two pugils: four whites of Eggs, and if need be, add a little Water, in which red hot Steel hath been quenched, and make two Cakes, which must be baked so hard in an Oven, that they may be beaten to Pouder. Of which Pouder give from half a dram to a dram early in the morning, in a draught or mess of Broth made of Sheeps Trotters.*

John Michael Paschalius doth witness that many Women long troubled with this Infirmity, have been cured with this Pouder.

Also the Pouder of Egg-shels alone is commended, a dram thereof being given divers mornings together; and it is accounted by some for a Secret.

Forestus commends the following Pouder, which he saies was one of the Secrets of his Doctor or Instructor, *Helidæus*.

Take *a Turtle Dove moderately fat, draw it, and wash it with astringent red Wine, and Rose Water mingled together, and put an ounce of Mastich in the Belly of it, and sow up the belly that none of the Mastich may fall out: Then roast it upon a Spit, and instead of Butter, baste it with Vinegar of Roses, and save the fat which shall drop from it for your use. When it is excellently well roasted, put it into a new glazed pot or pipkin, closed up with such Materials as the Chymists use to close their Vessels with, that nothing may vapor out. Then let it be set into the Oven, till it be so dry that it may be beaten into a Pouder, Of which Pouder, let the Patient take one spoonful every morning in Plantane Water, or in some astringent Decoction. And with the fat which was reserved at the roasting, let the Reins of her back, her groins, and Privy-part, with the share, be anointed.*

Our Country-women have an ordinary Medicine of the flowers of the long-stalked common Thistle, wherewith they use to curdle their Milk when they would make Cheese. They administer these Flowers in Broth, or other convenient Liquor. Others use of the Runnet of a Kid or an Hare, to the quantity of ten grains, which both stops the flowing of the Blood, and dissolves that which is clotted together in the Womb.

Galen accounts Juyce of Plantane newly made, to be the best Medicine in the world, being given to the quantity of three or four ounces.

Solenander adds to the aforesaid Juyce, a quantity of Colophony, and avouches it to be a remedy that never fails; his words are these: *To stop an old flux of the Courses, take two ounces of the Juyce of Plantane, and mingle therewith a dram of Colophony poudered, and give it the Patient to drink. Let her take it four times, and she shall be undoubtedly healed, with Gods Blessing.*

The Juyce of Yarrow is very convenient in this case, if two or three ounces thereof be given with Syrup of Coral, or some other convenient Syrup.

The Juyce of Nettles is no whit inferior to, or rather exceeds the former in efficacy: It may be given alone, or in mixture with others of little faculty: Or a Syrup may be made of Nettles, to be ever in a readiness.

A Water drawn out of the most tender Oak Leaves, which are of a reddish color, stops the aforesaid flux.

Mercatus makes up a very effectual Water, after this manner:

Take *a Loaf made of Wheat Flower, Barley Meal, and Rice: break it in pieces, and powr upon it seven pints of Water in which red hot Steel hath been quenched: Whereunto add, red Rose Leaves dried, three pugils: juyce of Plantane a pound: the Roots of the larger Comfry, being green and bruised, two ounces: the Herb Horse-tail, or Shave-grass, one handful: the pulp of*

Choak-pear,

Choak-pears, and Quinces, of each two ounces: Purslain two handfuls: Bole Armonick one ounce: Balaustians, and the three sorts of Sanders, of each half an ounce. Let all these be distilled in an Alembick. Let the Patient take of this Water three ounces mixed with half an ounce of Syrup of Purslain, or of dried Roses.

For the more tender sort of Women, Broths may be made of Calves feet, with Plantane Leaves, or Bloodwort. Or to thicken the Blood, a Broth may be made of red Rose-Water alone, and the Yolks of new laid Eggs. Likewise a Conserve of Bramble Roses is good for them, being often used, especially if their Liver be distempered with heat.

In all Fluxes of Blood, Practitioners do use to administer Water and Vinegar in a large quantity to be drunk down. But in this Flux of the Courses it is to be feared as an Enemy to the Womb, which is a Menbranous Part.

Among the Specifick or appropriated Medicines, are reckoned, Filipendula Roots, with the outer Rind of the Mulberry-tree Root, whose Pouders are administred to the quantity of a dram, in some convenient Liquor.

The Flowers of the Nut-trees are gathered when they are ripe and ready to fall, and poudered, and a dram given in a Cup of Wine warmed in the mornings, for divers daies together. *Solenander* witnesseth that all are cured with this Medicament. Also it hath a peculiar propriety to help fits of the Mother.

Spicknard in very fine Pouder, and taken to a dram in some convenient Liquor, stops the Courses: Also being conveighed into the Womb in Lint, Wool, Cotton, Crude Silk, &c.

Milk in which red hot Steel hath been quenched, being drunk many daies together, is very effectual in an old flux of the Courses; for it allayeth the sharpness of the Humors, and thickens them; it nourisheth the Body, and stops the Flux. *Avicenna, Rhasis*, and the rest of the Arabian Physitians, extol this Medicine to the Skies: and so doth *Horatius Augenius*, a noted Italian Physitian. Yet it is not to be used, if we suspect the Body is not yet cleer of the vicious Humors.

The Acid Mineral Springs, whether they have their Tincture from Vitriol, Iron, or Allum Mines, do much conduce to the stoppage of immoderate Courses, both by removing the Causes, and by strengthening the Bowels affected.

The Chymists do much commend the Tincture of Coral, and *Vitriolum Martis* [Vitriolated Steel] and many other Medicines, which you shall find in their Books.

Let the Patient use to drink the Decoction of Mastich, Yarrow, or of the dried Lentisch, or Mastich tree. Also the Lentisch or Mastich Wood, may be steeped in black harsh Wine, which doth very much strengthen the Bowels, and stop defluxions.

It must be diligently remembred, That in an old Flux, very astringent and thickening Medicaments, are not to be used long together. For it is to be feared, lest they should fill, straighten, and shut up the secret passages of the Body, and so breed Obstructions, and very much hurt the principal Bowels, which are wont to suffer very much in this Disease. But it is much better to persist in the use of such things as strengthen the Liver, which have some astriction, but so moderate as can do no harm.

Ludovicus Septalius in his Medicinal Animadversions, in the 144. Article, gives such commendations of the Decoction of Orange Peels, as of a Medicine that never fails, that it will be worth our while to transcribe his very words. *When such Medicines as these* (quoth he) *have been judiciously administred; in the next place, such Medicines as have a thickening and astringing quality are to be used; among which there is one which I cannot omit to set down, wherewith I have cured almost an infinite Number of Women troubled with this Infirmity; which I kept long as a Secret, and afterwards communicated to some yong Students, whom I did inform in the Art of practising Physick, and now publish the same to the whol World for the good of Man-kind: which Medicine hath scarce ever failed me, when there was no Vessel of the Womb exulcerated, that fed the Flux. It is a Medicine, easily gotten, and easily made, thus:*

Take *Seven pints of Water; boyl therein the rinds of three sowr Orrenges not throughly ripe, being cut into little thin bits or chips, and boyl them till two parts of the Water be consumed. Give eight or nine ounces of the strained Liquor to the Patient in the morning to drink. If you would have it more effectual, put an handful of Mous-ear into it, when it is almost boyled. And it will be yet more powerful, if you boyl it in* Tunbridg *water, or the like Medicinal Spring water: or if you boyl the aforesaid Ingredients in eight pints of water, till two third parts be consumed, and then strain it, and quench red hot Steel divers times therein.*

Externally this flux may be stopped by Medicaments applied to the outward parts of the Patients Body.

And in the first place, Fomentations may be thus made:

Take *the Roots of Bistort* [Adder-wort] *Tormentil, and the peels of Pomegranates, of each one ounce: The Leaves of Plantane, Knot-grass, Shepheards-purse, and Horse-tail, of each one handful:*

handful; Cypress Nuts, Balaustians, Myrtle-berries, Sumach, of each one ounce: Boil them in Water that hath had Iron quenched in it, and in red harsh Wine mixed together. Strain out the liquor, and Bath therewith, the whole Share and Privy-parts, warmish, but not hot.

Also, Boil a piece of Sea-sponge in strong Vinegar, and lay it upon the Patients Share, and Privities, and it wil powerfully stop the immoderate Flux of Courses.

A Bath made of the aforesaid Decoction, the Dose being augmented, will be good for the Patient to sit in: But care must be taken that it be not hot, but only warmish; otherwise it wil by it's heat, the more open the Veins of the Womb. A Bath made of the Decoction of Allum is very effectual; but it causeth barrenness.

After Fomenting and Bathing, the Patient must be anointed upon her Loyns, her Share, and Privities, and between the Water-gate, and the Dung-gate (which space is called *Perinæum*, and wants an English name) with an Oyntment made as followeth.

Take *Oyl of Myrtles, of Mastich, and of Quinces, of each one ounce: Bole-Armoniack, Dragons-blood, and Carobe, of each one drachm: Vinegar one spoonful. Make all into an Oyntment.*

Unguentum Comitissæ may also be used, or *Unguentum de bolo* newly made, or this following Cerate, which is very effectual.

Take *Ship-pitch half an ounce: Male Frankinsence one ounce: Mastich half an ounce: Turpentine one ounce: Dragons-blood, Red Roses, of each two drams. Make thereof a Cerate to be applied to the Reins of the Back.*

Plaisters are also profitably applied unto the Navil, and Loyns, made of the Mass of Plaister against Ruptures, the Plaister against the Mother, and of Mastich Plaister, either alone, or mingled together: Or of the Plaister of *Vigo* for Fractures, which is most excellent; and works it's effect without heating the Part.

The following Cataplasmes, are much more effectual, and very prevalent in a large Flux of Blood, causing danger of Death.

They are made, either of Bole-armoniack, incorporated with juyce of Plantane and a little Vinegar, and so applied.

Or of Plaister of Paris, lib. 1. incorporated with ten drachms of Gum-Arabick one pound toasted at the fire, and laid upon the Parts aforesaid in Cotton-Wool: The Whites of four Eggs being first mingled with it. *Solenander* saith, that this Cataplasm stops al Womens Fluxes in one day.

A Cataplasm, or Pultis made of Nettles, fried in a Pan, and laid upon the Share and Privities, works more kindly than the former; rather by a specifical property, then by it's astringency.

Injections made of juyce of Plantane alone, are likewise conveighed into the Womb by an Instrument for that purpose; which is very effectual, and much cryed up by Practitioners. Juyce of Knot-grass may be used to the same intent. And sometimes we are wont to add to the aforesaid Juyces, of the Mucilage, of Gum Tragacanth one ounce: Starch one drachm: Water of Rose-stalks, and Seeds three ounces, which are mixed, and Injected into the Womb. Or,

Take *of the leaves of Knot-grass, Plantane, Yarrow, Shepherds-purse, Horse-tail, of each half a handful: Boil all in Water sufficient to half a pint. In the strained liquor dissolve three drams of Acacia, Dragons-blood, Bole-Armoniack, and Blood-stone, of each one ounce: Mix all, and make thereof a Clyster for the Womb.*

A Fume made with Vinegar, poured upon a red hot Iron Plate, and received by the Patient sitting over a Close-stool, is very profitable; or a Fume may be compounded after this manner.

Take of *Frankinsence, and Mastich, of each two ounces: Myrtles and Labdanum, of each one ounce: Amber, Red Roses, Balaustians, of each half a drachm: With the infusion of Gum Tragacanth in Red-Rose Water, make Cakes to burn under a stool as before.*

John Michael Paschalius doth testifie that he cured a Woman troubled neer seven months with this Disease, with the smoak of burnt Frogs: and he affirms that the smoak of a Mules Hoof, is an experimented Remedy, wonderfully effectual in this Case.

Astringent Pessaries, are likewise usual in this Cure. Howbeit, they profit little, seeing they can hardly reach unto the Orifice of those Veins, which are opened in this Disease. But if the Veins of the Neck of the Womb are opened, they may be useful; and are thus Compounded.

Take of *Juyce of Plantane, or Knot-grass two ounces: Troches of Carabe in pouder, and Acacia, of each one drachm: Mix them with the White of an Egg, rowl them in silk, and make a Pessary.* Or,

Take of *the pouder of Hypocistis, Acacia, Bole-Armoniack, Dragons-blood, Comfry roots, Lambs-tongue, Plantane, Galls, of each half a drachm: Juyce of Purslain, or Plantane, or Syrup of Red Roses, or Myrtles, as much as shall suffice, and with Cotton Wool make a Pessary.*

Pessaries are likewise made of the leaves of Purslain, Plantane, or Knot-grass, or some other convenient

venient Herb bruiſed, and rouled in a piece of fine Linnen; or the Counteſſes Oyntment wrapt in Wool, and put into the Womb.

Neither are we to neglect the waſhing of the Patients Legs with cold Water, or ſome aſtringent Decoction, which is commonly uſed by Practitioners, and doth not a little further the ſtoppage of the immoderate Courſes.

Touching the adminiſtration of Topical Medicaments, it is to be obſerved, That aſtringent Medicines, eſpecially the ſtronger ſort of them, are not to be applied before ſufficient Revulſions have been made, eſpecially by Blood-letting: for it is to be feared leaſt they cauſe Tumors, or other worſe Diſeaſes in the Womb. Wherefore alwaies, as far as the Diſeaſe will allow time, the Cure muſt be begun with internal Medicines of a thickening and aſtringent Nature, before we make uſe of the Topical Medicines aforeſaid.

This Method of Cure aforeſaid may with Judgment be accommodated to the Flux of Courſes, ariſing either from an opening of the mouths of the Veins, or from a dreining of the blood through their Coats, or from a breaking of the Coats of the Veins: But if it ariſe from an eating or exulceration of the Coats of the Veins, it ought to be cured after the ſame manner, as an Ulcer of the Womb is cured, of which hereafter.

In the whol Courſe of the Diſeaſe, while the foreſaid Medicaments are uſed, care muſt be had to ſtrengthen the Bowels, and to correct the vitious quality of the Blood, as we ſhewed in our Cure of the Hemorrhoids.

And to conclude, When the Flux is allaid, the ſame Rules of Prevention are to be uſed in this diſeaſe, which we preſcribed concerning the Hemorrhoids.

Chap. 4. *Of the Whites.*

A Woman is ſaid to have the Whites, the Womans Flux, the Flux of the Womb, or the White Menſtruals; when Excrementitious Humors do flow from her Womb, either continually, or at leaſt without any certain order, or courſe of time obſerved in their flowing.

And the ſaid Excrementitious Humors are ſomtimes white and flegmatick, very like to Whey, or Barley Cream; ſomtime they are pale, or yellow, or green by the mixture of Choller; ſomtimes watery by the admixture of ſerous Humors: ſomtimes blackiſh, by the admixture of Melancholly; ſomtimes ſharp and Corroſive, ſo as to eat into, and exulcerate ſome parts of the Womb; ſomtimes they are of a ſtrong and beaſtly ſmel, and other whiles again, not at all offenſive in that kind.

This Diſeaſe is wont to ſeize upon grown Women for the moſt part, and ſuch as are of riper Age; yet are not Virgins alwaies free from the ſame: ſo that ſome have done ill in daring to affirm, That ſuch Maids as are troubled with this diſeaſe, have parted from their Virginity, taking their Ground from the ſtraightneſs of thoſe Paſſages Naturally: For if Virgins have the Veins of their Wombs ſo large, that their wonted Courſes can flow through them, why may not the Whites likewiſe drop out by the ſame paſſages, ſeeing they are many times more thin and fluxive than the Blood it ſelf, as being wheyiſh and chollerick. The ſame is confirmed by the produced Experience of moſt learned Phyſitians, and dayly Practice teacheth me as much, *viz.* That the moſt chaſt and perfect Virgins in the World have had this Infirmity, of whom there could be no ſuſpicion that they had been corrupted. And *Fernelius* doth witneſs, That he ſaw a Girl eight yeers old which had this Diſeaſe, and was afterward a long time grievouſly troubled therewith.

The Excrementitious Humors aforeſaid, are bred either in the whol Body, or in ſome principal Part of the Body, or in the Womb it ſelf.

If the Humors flow from the whol Body, they proceed either from bad Diet, or from a vicious habitual diſtemper of the whol Body, and they take their courſe unto the Womb as unto a Sink, or Common-ſhoar, whereinto the reſt of the parts of the Body diſburden themſelves.

The particular parts, by whoſe conſent the Womb ſuffers in this Diſeaſe, are chiefly, the Brain, Stomach, Liver, Spleen, Meſentery, and the Bladder, which diſpatch their Excrements unto ſuch parts as are more weakly, and ſo more diſpoſed to receive them.

Theſe Excrementitious Humors are bred in the Womb, becauſe when it is unable to digeſt its proper nouriſhment, by means of the weakneſs of its Retentive or Concoctive Faculty, the greater part of its Aliment is turned into Excrements, being imperfectly digeſted, or corrupted rather. It is imperfectly digeſted in cold diſtempers of the Womb; and it is corrupted in hot diſtempers thereof. And ſeeing the Womb by want of Digeſtion, is defrauded of its Nutriment, it preſently draws new Aliment, which being turned into Excrements, is by the Womb expelled as unprofitable; and new Aliment is continually drawn, whereby this flux of evil Humors from the Womb, becomes both plentiful and continual. The Womb is weakened and more diſpoſed to the Reception of theſe Excrements by Child-bearing, travelling in Child-birth, Abortion, and Contuſion, Inflamation, Impoſthumes, or Ulcers.

The Signs of this Disease, are referred to the Infirmity it self, to the part affected, or to the cause producing the Disease.

The Disease it self is easily known by relation of the sick party, and it is often times attended with divers Symptomes, *viz.* Paleness of Face, want of Appetite, sickness of Stomach, short breathing, weakness, swelling of the Eyes, fulness, pensivenels and sadness, thick Urines, turbulent, and many other accidents, which differ according to the diversity of the Humors offending, as we shall declare more distinctly by and by.

The part affected, and the place in which these Excrementitious Humors causing the flux are bred, may be known by these following tokens.

If the matter of the Flux is bred in the whol Body, these signs do shew it; *viz.* Wearinels and heavinels not proceeding from any work, of which the Patient is eased, having disburdened her self by the flux plentifully; and then again, when new matter is collected, she begins to be weary and heavy as before; her Veins are full; her Feet, Hands, and Thighs, are apt to be numbed. And these signs do especially discover only a plenitude of Humors. But that corrupt Humors do abound in the whol Body, is known by an evil habit in the whol Body [that is, an ugly sickly appearance in the looks, and whol outward state of the Body] a puffing up of the Hands and Feet, an itching and stinging in the whol Body, if the Humor be sharp, and many such signs as these.

If the matter offending reside in some peculiar part; the Symptomes and Excrements proper to that part, discover the same; as for example: A pain, heat, and swelling of the Liver, with Chollerick Excrements, do shew the Liver to be affected; and the same Symptomes happening on the left side, with Excrements of a Melanchollick appearance, do argue the flux to spring from the Spleen: Flegmatick Excrements, Stomach-sickness, want of Appetite, and sometimes extream Appetite, frequent corruption of the meat, and sowr belchings, or fatty (as of the Dripping-pan, or over-scorched flesh) are sure tokens of the Stomachs faultiness.

Pain of the Head, Froathy Excrements, some usual evacuation by the mouth or nostrils being stopped, do witness that flux springs from the Head. If none of the aforesaid signs of some part affected appear, then we may conjecture that the flux proceeds primarily from the womb. Also the Woman (in such a case) is well colored, the matter flowing is but little in quantity, being the excrement of the womb alone. There have preceded such causes as weaken the Womb, as are hard Travel, Abortion, a Fall upon the Belly or Back, immoderate Carnal Embraces, especially if the woman have been too yong married, Tumors, Ulcers, and other Infirmities of the Womb, whose signs are propounded in their proper Chapters.

The Humor causing the Flux is known chiefly by the colors of that which comes away, which were a little before declared, and which appear in the cloaths wherewith it is received, if, as *Hippocrates* teacheth in his second Book of Womens Infirmities, the said cloaths being dried, shall be after washed in Water alone, and dried in the shadow: for so they manifestly declare the color of that Humor which most abounds in the Excrements. Hereunto may be added the signs of an Humor abounding in the whol Body, usually delivered in that part of the Institution of Physick, which treats of Signs.

In the last place, We are to propound such Signs as distinguish this Disease from others like unto it; as namely, Excretion of Purulent matter proceeding from an Ulcer of the Womb, and the Gonorrhœa, or flux of Seed.

It is distinguished from purulent Matter by the signs of an Ulcer in the Womb, which shall be set down in their proper Chapter; as likewise, because the Purulent Matter or Quittor, is much thicker, whitish, and lesser in quantity, if it be digested rightly; but if it be of a goary, sanious, and fleshy appearance, like blood and water mingled, there is then blood amongst the matter, and it is wont sometimes to come away with strings from the Womb, and with exceeding pain; also the Women that have Ulcers in the Womb or its Neck, admit not of Copulation but with pain, which exasperates their Disease; but those which are troubled only with the Whites, do willingly and patiently suffer themselves to be embraced by their Husbands.

In the Gonorrhœa, the matter which comes away is not so much in quantity, is thicker, of a more shining whiteness, holds up longer from flowing, and seldom or never stinks. But if it be a virulent or venemous Gonorrhœa (such as accompanies the Letchers Pocks) it is known by sharpness of Urine, Ulcers of the Privy parts, and other Signs that argue Malignity.

The Predictions or Prognosticks of this Disease, are as followeth:

This Disease in one respect may be called good, in another respect bad: Good, forasmuch as commonly it is not attended with any danger of death; and bad, because it is a stubborn Disease, long lasting, and most exceeding hard to be cured; forasmuch as the flux of evil Humors having once taken this course, is very hardly turned out of its Channel, because the Womb (as we said before) is the Draught of the whol Body, whereby even in time of Health, the superfluous Humors of the whol Body are monthly evacuated.

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If this Infirmity get head, it may bring many other Evils upon the Patient, as Barrenneſs, falling down of the Womb, Exulceration, Cachexia, Dropſie, and Conſumption.

A Flux of Whites, bleviſh, bloody, ſtinking, is worſe than the white, pale, not ſtinking.

The longer this Diſeaſe hath laſted, the harder it is to cure.

It attends old Women to the grave for the moſt part, becauſe of their abounding with flegm, and the weakneſs of their Concoctive Faculty.

The Cure of this Diſeaſe is to be begun by a convenient purging of the Peccant Humor. And becauſe flegmatick and wheyiſh Humors do moſt commonly offend, ſuch things as purge thoſe Humors, muſt chiefly be uſed, and with them Purgers of Choller, or Expellers of Melancholly muſt be mingled, according as Choller or Melancholly is adjoyned to the Humor offending. An Apozeme therefore may be appointed both altering and purging for four or five daies by way of a ſolemn purgation, alwaies remembring that to the purging Medicaments, ſome aſtringent and corroborating things are to be added, leſt the Humors of the Body being ſtirred, ſhould fall more abundantly into the Womb.

Touching Blood-letting, it is a queſtion, whether it be convenient in this Diſeaſe or not: For ſeeing this Flux is cauſed by ill Humors in the Body, which by Blood-letting are drawn into the Veins and ſo may corrupt the Maſs of Blood; it ſeems there is in this caſe no place for bleeding. Alſo, ſince in this lingring Diſeaſe, the Patients ſtrength is much abated, and the Body often brought into a Conſumption, it ſeems unfit to weaken it yet more by blood-letting, and ſo defrauding it of its nouriſhment. Which Controverſie is thus decided; That if the flux be not pure and ſimple, but in ſome meaſure mingled with Blood, and it appear reddiſh, that then a Vein may be opened; as alſo if the Liver be very much heated, and the ſharpneſs of Choller be joyned with the flux. In other Caſes, eſpecially if the flux have endured long, it is better to abſtain from Blood-letting.

Bindings of the upper parts of the Body, and Cupping-glaſſes applied to the ſhoulder-blades, and to the back, wil be very uſeful to draw the Humors upward; alſo rubbings of thoſe parts wil be ſpecially profitable, firſt with finer and ſofter cloaths, than with rougher and courſer, which *Galen* dayly practiſed upon the Wife of *Boetius*, whom he cured in the ſpace of thirteen daies, as himſelf relates in his Book of Prognoſticks dedicated to *Poſthumus*, Chap. 8.

And beſides the Univerſal Purgation already propounded, ordinary Purgations are alſo to be adminiſtred, and frequently reiterated, that the ſuperfluity of Excrements may be the better evacuated by little and little, and that Nature may get a cuſtom to void thoſe Humors by ſtool, which formerly had their recourſe unto the Womb. To this intent, Magiſterial Syrups, Pills, and uſual Opiates may be compounded, ſuitable to the temper of the Patient, and the Humors offending. In this Diſeaſe cauſed by flegm, *Mercatus* commends a Syrup of the Decoction of *Lignum vitæ*, with Senna, Turbith, and Agarick; as alſo the following Pills:

Take *of the Maſs of Pills of Hiera picra, one dram: Agarick trochiſcated one dram and an half: with Honey of Roſes make them into Pills, of which let the Patient take early in the morning ſix or ſeven every third day: afterward, only three of them every fifth or ſixt day.*

Or for the greater Aſtriction, as wel as purging, they may be thus compounded, in whatever Complexion.

Take *Choyce Rhubarb oft-times ſprinkled with the Juyce of Roſes, two drams: Citrine colored, white and black Myrobalans ſteeped in the Juyce of Roſes, of each one dram: Maſtich one ſcruple: Spicknard half a ſcruple: With Syrup of Roſes make all into a Maſs of Pills. Let the Doſe be one dram twice in a week.*

For a Flux ariſing of Seroſity, or Wheyiſh Excrements, Jallap is moſt excellent, which may be thus uſed:

Take *Jallap finely poudered one dram: Cinnamon finely poudered half a ſcruple. Mix them, and with a draught of Chicken Broth, give it the Patient in the morning.*

A Laxative Ptiſan dayly taken for a month together, hath cured a ſtubborn Flux of Whites, when nothing elſe could, as is to be ſeen in our Book of Medicinal Obſervations. CC

Vomiting is likewiſe much commended in this Diſeaſe, eſpecially in ſuch as are eaſie to vomit, becauſe ſuch indigeſted humors as are wont to be gathered about the Stomach, are hereby both evacuated, and powerfully revelled or drawn back from the Womb. Among convenient Vomits, Diaſarum of *Fernelius* his Invention is commended, half an ounce whereof, given in Water and Honey, or with one ounce of Oxymel, and warm Chicken Broth, twice or thrice in a month, moves three or four Vomits, without any trouble.

After ſufficient Purgations, ſweat may be procured to expel the remnants of the Excrementitious Humor; and alſo to cauſe a further Revulſion of the Humors falling into the Womb.

To this intent, a Decoction of *Lignum vitæ*, and Saſſaphras, will be good in ſuch as are flegmatick; and of China and Sarſaparilla in ſuch as are Chollerick and Melancholick, cooling and temperate Herbs being added, leſt the evil Humors be more exaſperated, and become more ſharp.

Or Sweat may be provoked by a Decoction of hot Herbs, as Nep, Calaminth, Fennel, Hyssop, Elicampane, Chamomel, Dill, and such like, the evaporation of which Herbs being artificially received upon the Patients Body, will procure sweat. A Bath may also be made of the same Decoction, by which sweat may be provoked. But in hotter Constitutions, a Bath of fresh fair Water blood-warm, will be sufficient, in which moderate and gentle sweats only may be procured.

Sulphurous Baths do also powerfully cause sweat, and consume the reliques of this Disease: and by help of such Baths we have known some Women cured, that no other means could help.

As touching Piss-driving Medicines, its a weighty question whether or no they are fit to be administred in this Disease? For they do not only provoke Urine, but the Courses likewise, by heating and attenuating the Humors contained in the Veins. Yet are they allowed by all Authors, and by *Galen* himself, who used them in the Cure of the Wife of *Boetius*: And the reason is, Because Piss-drivers do provoke Urine Primarily, and the Courses Secondarily, and as it were by accident or chance. Again, the Kidneys do perpetually draw Wheyish Humors unto themselves, whereas the Womb does only receive them; whereupon it is credible that the greatest part of such Humors, will have recourse unto the wates of Urine.

Now the Piss-driver which *Galen* used in the foresaid Woman, is a Decoction of Asarum and Smallage in fair Water; howbeit, it will be better temper'd, if it be made in Succhory Water.

A more compounded Piss-driving Broth, may be thus made:

℞ Take *the Roots of Asarum, and of Smallage, of each one ounce: Leaves of Calaminth, and Soldanella, of each one handful: Elder flowers half a handful: Polypody, and Carthamus seeds, of each half an ounce: boyl all to a pint. Give five ounces of the Liquor or Broth strained, in the morning. If you would make it purgative, add a little Agarick, and a little Turbith boyled with the rest, in a Rag.*

It's questioned whether Issues in the Legs. are good for this Disease; for by drawing the Humors downwards, they may decrease the Flux. Howbeit, experience hath shewed that they do good in old Fluxes, because by such passages, some part of the Excrementitious Humor is voided.

If Chollerick and sharp Humors cause this Disease; not only purgers of Choller are to be given, but likewise Alteratives which cool and thicken, and are moderately Astringent; such as these Juleps following.

Take *of the leaves of Succory with the roots, of Endive, Borrage, Lettice, and Purslain, of each half an handful: of new Sebestens and Jujubes, of each seven in number: of the four greater cool Seeds, and white Poppy Seeds, of each half a drachm: of red Rose-leaves a pugil. Boil all in Water sufficient, unto a pint, and in the strained liquor dissolve Syrup of Quinces, or of dried Red Roses three ounces, and make a Julep, for three Doses.*

But if Melancholick humors abound, they are to be altered and Purged away, by Medicines proper to that intent.

The use of Chalybeate milk taken forty daies together, the quantity of four or five ounces, is very proper for either of the aforesaid Humors; whereunto may be added towards the end, a little Bole-armoniack, or *Terra Sigillata.*

In the whole Course of Curing, it is to be considered, whether any part of the Body be misaffected, and so may send the matter of the Flux into the Womb; and if so, then care must be taken for the use of that part.

For if Humors flowing from the Brain, do cause this Disease, Remedies are to be applied to that part; especially such as revel and divert the Fluxion, *viz.* Cupping-glasses frequently fastned upon the shoulders and Back, Medicines snuff up into the Nostrils, Masticatories, Vesicatories, and Issues made in the hinder part of the Head, or in the nape of the Neck; instead where of Setons may be used, which are more effectual. And *Fabritius Hildanus* in the forty one Cure of his first Century, relates that he cured a Woman long troubled with the Whites, and thereby Barren, by a Seton.

If the Humors flow from the Stomach, Liver, or any other part, suitable Remedies must be applied to that part.

The Body being prepared, and the offending Humor for the most part evacuated, or derived another way: We must proceed to corroborating and Astringent Medicaments. But they must never be used until the Antecedent matter be wel evacuated, and diverted. Otherwise, those Humors retained, do rush into the more noble parts, and stir up more grievous Symptoms. As *Galen* in the afore-cited place relates to have befallen the Wife of *Boetius*, whose Belly, swelled, by meanes of the unseasonable use of Astringents, by which the Wheyish Humors were retained in her Body, which were wont to pass away in the Flux. It is likewise to be remembred, that whilst we are in the use of Astringent Remedies, we do then divert the Antecedent Matter, and hinder the same from increasing, by the Remedies aforesaid. Amongst these principal corroborating Medicines, Treacle is reckoned, which is to be used in flegmatick Constitutions. Conserve of Roses, and of Wormwood,

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may be mingled with the Treacle; Or the following Opiate may be compounded,

Take *Conſerve of Roſemary flowers one ounce: Conſerve of Calamus Aromaticus two drachms: Species of Diarrhodon Abbatis, and of Aromaticum Roſatum, of each one drachm: Red Coral prepared half a drachm: Treacle two drachms; with Syrup of preſerved Citron peeles Make all into an Electuary.* Or,

Take *old Conſerve of Red Roſes, Roots of Comfry, Bugloſs, and Citron peeles, of each one ounce: Red Coral burnt, ſhavings of Ivory, Bole-armoniack, Terra Sigillata, Dragons-blood, of each one drachm; with Syrup of Red Roſes dried: make all into an Opiate.*

The pouder of Sage, Sarſa-parilla, and Baulaſtians taken every morning in broath, is the Court-Ladies Medicine.

Zecheus commends this following Electuary, which he had often uſed with happy Succeſs.

Take *Gum Arabick, and Gum Tragacanth, of each two drachms: white and red Coral, burnt Eg-ſhels, Harts-horn, Dill ſeeds, Amber, of each four ſcruples: Honey of Roſes, as much, as will make all into an Electuary. Of which give half an ounce two hours before meat. Let the Patient ſwallow it down, and drink after it four ounces of Plantane Water, mingled with two drachms of red Wine.*

Juleps may be made of Roſe-water, Knotgraſs, and Plantane waters, with the Syrup of Myrtles, dried Roſes, and the like: Some of the aforeſaid pouders being added.

Mercurialis ſaies he frequently uſed a Decoction of Oak-leaves, with the Runnet of an Hare; wherewith he cured many Women of this Diſeaſe. His manner of making his Medicine was thus.

Take *of the Decoction of Oak-leaves five or ſix ounces: of the Runnet of an Hare, one dram: Let her take this Medicine eight or ten daies.*

When the Diſeaſe comes from Choller, the following Syrup may be prepared, which is ſtrengthening, Aſtringent, and cooling. Thus,

Take *red Roſe Water four pints: Spirit of Vitriol, ſo much as will make the Water a little ſharp; but ſo as ſcarce to be perceived by the taſte: red Roſes dried three pugils: Steep them in the Water cold, two daies; Strain it, and add thereto ſo much Sugar of Roſes, as will make a Syrup.*

And Finally, Thoſe Aſtringent remedies muſtred up in the former Chapter, touching the Immoderate Flux of Courſes, may be likewiſe uſeful in this Cure.

The Patient may uſe inſtead of ordinary drink, a Diet drink of China-roots, or Maſtich wood, with Aſtringent Wine mingled.

The ſame time that the Patient takes in ſuch things as are Aſtringent, and do ſtrengthen the Womb, ſhe muſt likewiſe uſe outward Remedies applied to the place affected, *viz.* Fomentations, Baths to ſit it, Oyntments, Plaiſters, Injections, Fumigations, and Peſſaries; ſuch as have been preſcribed againſt Immoderate Courſes.

But before theſe external Aſtringents are applied, the Womb muſt be well clenſed. Otherwiſe ſuch impurities would be therein retained, as returning back into the Body, may cauſe more grievous Diſeaſes. And in our clenſing, we muſt regard the Humor offending; for one ſort of Clenſers are fit for Flegmatick, another for Chollerick Humors.

If the Humor be Chollerick, let the Clenſing Injections be made of Barley-Water, Whey, Water ſweetened with Sugar. If it be Flegmatick, let them be made of Hydromel, or of the Decoction of Wormwood, Fever-few, and the like.

Alſo a Detergent Peſſary may be made of Treacle, and Turpentine; or of Mercury leaves bruiſed, and wrapped up in a fine Linnen rag very thin worn.

Let the Patient uſe theſe Clenſers, before the Aſtringents be applied, until her Womb be well puriſied; which may be known, if little or no Humors come therefrom.

After the Uſe of the Clenſers, the Fumes are firſt to be received over a Cloſe-ſtool, becauſe they dry and ſtrengthen the Womb; and they may fitly be made of Frankinſence, Ladanum, Maſtich, Sanders, Nutmeg, and Red-Roſe leaves. And afterwards we muſt proceed to other Aſtringent Remedies.

Chap. 5. *Madneſs from the Womb.*

WOmb-Furie is a ſort of Madneſs, ariſing from a vehement and unbridled deſire of Carnal Imbracement, which deſire diſthrones the Rational Faculy ſo far, that the Patient utters wanton and laſcivious Speeches, in all places, and companies, and having caſt off all Modeſty, madly ſeeks after Carnal Copulation, and invites men to have to do with her in that way.

This Immoderate deſire of Carnal Conjunction, ſprings from the abundance of Seed, from it's Acrimony,

crimony, and heat transcending the bounds of Nature, whereby it is made to heave and work in the Seminal vessels, as Yest works, whereby the parts made for generation, are vehemently stirred up, and inflamed with lustful desires. And from the same Seminal matter so affected, Vapors ascend unto the Brain, which disturb the Rational Faculty, and depose it from its throne. Howbeit, The Immoderate appetite of carnal Conjunction alone, without the help of any such vapors, is able of it self to master the Rational faculty, as also al other Immoderate passions; but especially Immoderate Love, which is called *Eroticus affectus*, or Love-Melancholly.

Now the Seed acquires the aforesaid qualities, when it is over long retained in Bodies prone to lust, and full of heat; and therefore this Disease is incident to Virgins, and young Widows peculiarly; although it may also betide married Women, that have impotent Husbands, or such as they do not much affect, whereby their Seminary Vessels are not sufficiently disburthened, or their amorous affections duly satisfied.

Some hold, That the Seed being corrupted, acquires a malignant quality, which causes these grievous Symptoms. But they are not wel able, so holding, to shew any difference between this Disease, and fits of the Mother, which arise from the Seed being corrupted, and thereby infected with a malignant quality. For although several degrees of putrefaction do produce different degrees of malignity, from whence a great variety of Symptoms are wont to arise; yet these manifest qualities aforesaid, *viz.* great plenty of Seed, it's heat, Acrimony, and Fermentation in excess, together with the great heat of the genital parts; are sufficient to produce this Disease we treat of.

Now the Causes producing so hot, plentiful, and sharp stinging Seed, are youthful age, Sanguine complexion, and Cholerick, or melancholly adust; meats that nourish much, a plentiful table, especially if the meats be spiced; the frequent smel of Spices, Musk, Amber-greece, and such like: large sleeping, and upon soft beds filled with Feathers, or down; amorous Courtings, reading of lascivious Books, Dancings, and other pleasures usual in the meetings of youthful persons.

The Signes of this Disease may easily be gathered out of what hath been already said. But because it is wont to discover it self gradually, by little and little, it is fit to relate it's progress. In the beginning, whilst the sick persons do yet enjoy their understanding, they are more sad, and silent than ordinary, but with a wanton rowling of their Eyes, and a ruddyness of countenance; which ruddiness, is sometime more then at others? especially when mention is made of matters belonging to bodily lust, for then their breathing is changed, and their Pulse too, by Sympathy of the Heart, which made *Galen* boast that he knew the furious lusts of Women by their Pulse; because such Lovers, do of a sudden undergo divers changes of their Pulse, when desirable objects are presented unto them, or brought into their remembrance. Afterwards when the Disease is exasperated, they begin to scold, and to weep, and ever and anon they fall a laughing, they speak many things without rime, or reason unadvisedly, out of which no certain sence can be gathered; a while after, they repent of this their folly, until another fit take them, by reason of the inordinate motion of the peccant matter, which observes no certain period in it's Fermentations. Women possessed with this kind of dotage, when the Disease is come to it's height, do openly before all the world ask men to lie with them expressing the actions of Generation in the most proper, and broadest language, their mother tongue affords.

As for the Prognosticks of this Disease. It is a curable sickness, if meanes be used in time. But if it continue long, and take firm rooting, it turns into a true and perfect Madness.

There is a great hope of Recovery, when the distances between the fits begin to be longer than ordinary, or when the Patients Body, being grown lean becometh fat again, and when mention of matters pertaining to Generation, doth no longer affect or disturb them.

The Cure of this Disease tends to correct the hot distemper of the Bowels; especially of the Womb, and the Blood, and Seed; likewise to evacuate the sharp Humors, and Seminal matter offending. All which may be done by the following Remedies.

And in the first place, Blood must be often drawn, as far as the Patients strength can bear: that so the whol Mass of Blood, and the Womb it self may be cooled, and the fervent Blood may be withdrawn from the Veins of the Womb.

And if the Patients monthly Courses be stopt, the inferior Veins are afterwards to be opened, that they may by that means be brought down.

But if the Blood seems to have recourse to the Hemorrhoid Veins, which is known by their swelling and redness; the said Veins are to be opened by Application of Leeches

Afterwards a Purgation is to be given, made of the gentler sort of Medicines purging Choller or Melancholly, according as the one or other Humor shal seem to abound.

This purgation is to be followed by Juleps that prepare the matter offending, *Viz.* such as cool and gently open; which must be given three daies together.

Then a more strong purgation is to be administred, which may wholy extirpate the foresaid humors. To which intent these Purging Medicaments may be used, which was set down in our Cure of Madness, which must be now and then repeated.

After

After iterated Purgations, the following Bath being frequently uſed in the whol courſe of the diſeaſe, will be very uſefull to cool the whol Bodie, and temper the fervor of the peccant Humour.

Take *Leaves of Lettice, Willow-tree, Water-lillies, Vine-tree, Purſlain, Penny-wort, of each a handful: Flowers of Violet, Water-lilly and Roſes, of each two handfulls. Boyle all for a Bath, into which Blood-warm let the Patient enter, twice in a day, without ſweating, far from meal-tide.*

And forasmuch as a compleat, and entire Bathing cannot conveniently be continued for ſo many daies together; at leaſt the Patient may Bath her lower parts frequently in a part of the aforeſaid Decoction, yea or of meer Water, and the liquor muſt be only warmiſh: For the prime intention of this Cure is, that the Womb may be cooled to the purpoſe: which is confirmed by a remarkable Experiment propounded by Dr. *Harvey*, in his Treatiſe of the Child-bearing of a noble Lady, who had been more than ten yeers beſide her ſelf, by reaſon of this Womb-fury; whoſe Womb (after all things had been tried to reduce her to her wits, in vain) fell out, which they did not put up til the coldneſs of the external Air had healed its diſtemper; the event was, as the Doctor imagin'd, and ſhe grew quickly well, and her Womb was at laſt reſtored to its proper place.

For the greater cooling of the Body, it may be convenient to give the Patient Whey to drink many daies together.

And to be brief, Whatever hath been preſcribed in our Cures of Madneſs and Hypochondriacal Melancholly, will be good in this Diſeaſe, according as it ſhal be cauſed either by Choller or Melancholly.

Unto all which may be added ſuch things, which by a peculiar property, diminiſh and cool the Seed: Among which take theſe that follow for example.

Take *Leaves of Water-lilly, Willow, Agnus Caſtus, of each four handfuls: Lettice, Purſlain, Penny-wort, or Two-penny Graſs, of each a handful: the four larger cooling Seeds, Lettice, and white Poppy ſeeds, of each half an ounce: Dill ſeeds two drams: the flowers of Water-lilly, and Violets, of each one handful. Let all be ſtamped, being freſh, and let them be ſprinkled with Juyce of Lemmons, and diſtilled in Balneo Mariæ; and to every pint of the Water, add a dram of Camphire. Let the Patient take an ounce divers times.*

Or of all, or ſome of the Simples aforeſaid, a Decoction may be made, and ſweetened with Sugar, and a little Camphire put to it, to be taken divers times one after another.

Or an Emulſion may be made of the greater cool Seeds, Lettice ſeeds, and white Poppy ſeeds, extracted with the Waters of Lettice, Willow and Water-lillies, and ſweetened with Syrup of Violets.

An Electuary may be preſcribed after this manner:

Take *Conſerve of the Flowers of Water-lillies, Violets, and Agnus Caſtus, of each half an ounce: Conſerve of Roſes half an ounce: Lettice Stalks preſerved one ounce: Coral and Smaragd prepared, of each one dram: with Syrup of Violets, and water-lillies, make an Opiate.*

In the greateſt extremity of the Patients raving, ſuch things as procure ſleep, are very profitable, both inward and outward Medicaments, as they are ſet down in the Cure of Phrenzy and Madneſs.

In the whol courſe of the Diſeaſe, Clyſters which cool and gently purge, are to be uſed, taking heed of ſharp Clyſters, and ſuch as vehemently purge, which do exagitate the Humor contained in the Womb, or its Veſſels, whereby the Symptomes are wont to become more fiery.

Alſo Injections may be made into the Womb, of the Decoction of ſuch Herbs as have formerly been ſet down for Baths and other Remedies, whereunto *Sal Saturni* may profitably be added.

Frequent Clyſters may likewiſe be good to the ſame intent, being made of Vinegar allaied with Water.

Alſo cooling Oyntments are to be applied to the Loyns, Privity, the Share, and between the Water-gate, and the Dung-gate, made of Oyl of Water-lillies, Oyntment of Roſes, *Unguentum Album Camphoratum*, with the Juyces of Nightſhade, Henbane, and Water-lillies, melted together, adding a little Camphire.

Alſo a Plate of Lead is good to be worn continually upon the Reins.

In regard of the immediate Cauſe, ſeeing the evacuation of the ſharp and corrupted Seed, may cure the Diſeaſe; it is very good Advice in the Beginning of the Diſeaſe, before the Patient begins manifeſtly to rave, or in the ſpace between her fits, when ſhe is pretty well, to marry her to a luſty yong man. For ſo the Womb being ſatisfied, and the offenſive Matter contained in its Veſſels being emptied, the Patient may peradventure be cured.

But if the Patient cannot ſo conveniently be married, or the condition of her life will not bear that eſtate, ſome adviſe that the Genital Parts ſhould be by a cunning Midwife ſo handled and rubbed, as to cauſe an Evacuation of the over-abounding Sperm. But that being a thing not ſo allowable, it may ſuffice whilſt the Patient is in the Bath, to rub gently her Belly on the Region of the Womb, not coming

coming neer the Privy parts, that the luke-warm temper of the Water may moderate the hotneſs of the Womb, and that it may by the moiſture be ſo relaxed, as of its own accord to expel the Seminal Excrement, and that nothing elſe be done with the hand, ſave a little to open the Womb, ſo as the Water may paſs into its more inward parts; foraſmuch as the water will operate as much as any of thoſe Medicines which are uſed to extinguiſh the ſeed withal.

Peſſaries may be compounded to the ſame intent of the Leaves of Mercury bruiſed, with a little Mirrh, or the Powder of Ariſtolochia or Birthwort; which muſt be put up, when the Patient is in the Bath, leſt otherwiſe the VVomb ſhould be over-heated; and after an hour, it muſt be taken away. And afterward, let an Injection be made into the VVomb of VVhey, or Barley water, with a little Juyce of Nightſhade, Houſleek, or Hemlock, which is ſpecially commended in this Diſeaſe.

To purge out the Seed, the following Bolus or Morſel will be very profitable.

Take *of Venice Turpentine three drams: Agarick trochiſcated one dram: Carrot ſeed, Hemp-ſeed, and Lignum Aloes powdered, of each eight grains: With Sugar make all into a Bolus or Morſel to be ſwallowed.*

If the Diſeaſe do yet continue, let Iſſues be made in her Thighs; for nothing is better than by ſuch meanes to draw the matter downward, from the Womb, to thoſe inferior parts.

And if ſwellings of the Spleen ſhall ariſe, and Obſtructions, during this Cure, as it often times happens; they muſt be carefully cured with their proper Medicaments.

Finally, Becauſe in this Diſeaſe the Brain and Heart, are grievouſly affected, by reaſon of Vapors ariſing from the Womb, they are both of them diligently to be provided for; the Brain being ſecured by rubbing and chafing the lower parts, and by Cupping-glaſſes frequently faſtened upon the Hipps, and Groins; and the heart defended by Cordial things outwardly applied, both Liquid and Solid, ſuch as are deſcribed in our Chapter, touching decay of ſtrength.

Chap. 6. *Of the Mother-Fits, or Womb-ſickneſs.*

When Seed and Menſtrual Blood, are retained in Women beſides the intent of Nature, they putrefie and are corrupted, and attain a malignant and venemous quality: from whence venemous Vapors are elevated and carried to divers parts of the Body, from whence divers Symptomes do ariſe; and thoſe ſo divers, that *Democritus* might juſtly ſay in his Letter to *Hippocrates*, That the VVomb is Author of a thouſand ſad Sorrows, and innumerable Calamities. And *Hippocrates* himſelf ſaies in his Book of Virgins Diſeaſes, That miſerable VVoman-kind is commonly laded with incomprehenſible and manifold Diſeaſes. All which Infirmities we intend to explain in this Chapter, under the name of Mother-Fits: herein imitating *Galen*, who in his ſixt Book of Parts Affected, and the fifth Chapter, ſaies that the Mother, or Hyſterical Paſſion, is but one name indeed, yet comprehending under it divers and innumerable Accidents. Notwithſtanding all late Writers in a manner, do handle the Suffocation of the Womb, under the Title of Hyſterical Paſſion, calling a particular Symptome by ſuch a name as is common to many others, becauſe it, of al the reſt, is moſt frequent, and moſt troubleſom. But herein the very beſt Authors ſeem to have been ſuperfluous in their Treatiſes of Womens Diſeaſes, while in different Chapters they deſcribe ſeveral Diſeaſes ſpringing from the Womb, viz. Suffocation of the Womb, Head-ach, Epileptical fits, Palpitations of the Heart, Pulſation of the Arteries about the ſhort Ribs, and in the Back, the Diſeaſes of the Stomach, Liver, and Spleen ariſing from the Womb, and divers pains in ſundry parts of the Body ariſing therefrom; ſeeing all theſe Infirmities do ariſe from one and the ſame cauſe, and are to be cured by the ſelf ſame Medicines; ſo that the aforeſaid Authors, are fain to repeat the ſame things over and over, in ſeveral Chapters, not without much wearineſs to the Reader.

We therefore, That we may more briefly, and methodically ſet down the Nature of all theſe infirmities, think it worth our labor, firſt to ſet down the univerſal Cauſes of them all; and afterwards to declare how thoſe Diſeaſes ariſe from the ſaid Cauſes.

We have ſhewed in the beginning of this Chapter, that there are two ſpecial Cauſes of all theſe Symptoms, *viz.* the Womans Seed, and the Menſtrual Blood, being retained beſide the intent of Nature, and corrupted, and poſſeſſed of a malignant, and venemous quality; out of which malignant Vapors, do ariſe, and afflict divers parts of the Body. Unto which Doctrine generally propounded, two other things of greateſt moment muſt be added, *viz.* Firſt, That not only the Seed and menſtrual Blood, do produce Hyſterical, or Womb-ſickneſſes; but divers Humors alſo of an excrementitious Nature flowing into the VVomb, and by a long abiding, growing putrefied, and ſending out filthy Vapors. This is verified by many Ancient VVomen, who being deſtitute of menſtrual Blood and of Seed, are yet very much ſubject to theſe VVomb-ſickneſſes or Hyſterical paſſions. Secondly, that not only vapors ariſing out of the aforeſaid ſubſtances, are cauſes of theſe diſtempers, but the very Humors themſelves are a cauſe, which finding no free vent by

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the Veins of the Womb (into which as a Common-ſhore Nature diſburthens ſuperfluous Humors) by reaſon of the ſtoppage of the Monthly Courſes or of the Whites; they flow back again into the ſuperior parts of the Body, and doe infect the ſaid parts with that vitious quality, which they have contracted by their long abiding in the Veſſels of the Womb, or by their mixture with Seed, or Menſtrual Blood corrupted.

Theſe Foundations being thus laid down, let us ſee how Hyſterical Symptomes are ſtirred up by the Cauſes aforeſaid, beginning with the Suffocation, or ſtrangling fits of the Mother, which is the moſt frequent and principal Sickneſs of theſe kind of Women, being accompanied with very many, and thoſe moſt grievous Symptomes. For beſides their breathing impaired, and ſomtimes aboliſhed, their whol Body becomes cold, their Speech and Pulſe is intercepted, ſo that they lie like dead Women; and ſome have been accounted dead, and laid out for Burial, and yet afterward Revived.

Now this Sickneſs comes by fits, which makes their returns ſomtimes ſooner, ſomtimes later; and endure ſomtimes a longer, ſomtimes a ſhorter time, according to the quantity of the Humor offending, which is ſomtimes quickly collected, and ſomtimes long in gathering; ſomtimes ſoon diſcuſſed, and ſomtimes long before it can be diſcuſt: For ſuch like Cauſes of Diſeaſes in the Body of Man, have their times of digeſtion and exaltation; which having arrived unto, they do ſuddenly, and as it were in a moment, break forth into action. Yea, and ſuch Humors being already collected in the Body, may for a ſeaſon lie hid, until being ſtirred by ſome internal or external Cauſe, they ſhed forth their poyſonous blaſts and vapors into other parts of the Body. Now the moſt frequent and noted Cauſes of this Commotion and Agitation of theſe Humors, are ſweet ſmelling things coming neer the Patients Noſe, or ſweet Meats taken in, which quickly bring Women ſubject to this Infirmity, into their fits; alſo vehement Anger, Terror, and other grievous Paſſions of the Mind.

Now there are divers Degrees of this Sickneſs, according as the Matter offending differs in Quantity, or Malignity. For ſomtimes the Choaking-fits, with want of breathing, are light and ſoon go over; ſomtimes it is extream, ſo that the Patient breaths not at all, and is attended with other Hyſterical or Womb-ſickneſſes, ſuch as Vomitings, Ravings, Convulſions, and Swoonings, or Faintings away.

And for the moſt part, more grievous Symptomes do ariſe from corrupted Seed, than from Menſtrual Blood, or other corrupted Humors. For look how much Seed retaining its Natural Diſpoſition, is of a more excellent Nature than Menſtrual Blood, by ſo much does it degenerate when corrupted, into a greater or worſer kind of Venom or Poyſon.

There are likewiſe other Differences of this Choaking Mother-ſickneſs, to be obſerved, viz. That ſomtimes the Patients have their Breath ſtopt as it were, ſomtimes they complain that they are choaked, as it were with a Rope that ſtrangled them; and ſomtimes their breathing is much abated, or aboliſhed, without any pain or ſence of ſtrangling. The Reaſon of which diverſity is this; That the ſimple Suffocation, and difficulty of breathing, do ariſe from abundance of Vapors, which do ſomtimes very much abound in Hyſterical or Womb-ſick Women, eſpecially when the Hyſterical Paſſion, and Hypochondriacal Melancholly are joyned together. Which Vapors or Winds, do compreſs the Midrif and Lungs, as it is wont to fall out in the windy Aſthma; but the ſence of choaking, in which the Patient feels her ſelf as it were ſtrangled in her Throat, depends upon a ſpecial property of the venemous Vapor; as there are other Poyſons in the greater World, which have ſuch a property of throatleing and choaking, as is known of one ſort of Muſhroms. And, that the venemous qualities bred in Hyſterical Women are divers, *Galen* does ſufficiently hint in his ſixt Book of the parts affected, Chap. 5. where he compares the malignity of this Vapor, to the venom of the Fiſh *Torpedo*, and to the ſting of a *Scorpion*; which Poyſons, though in quantity they are ſmal, in operation they are mighty, and being received into mans Body, they do in a ſhort ſpace of time, grievouſly afflict the ſame, and produce therein moſt vehement Symptomes. As for Reſpiration diminiſhed or aboliſhed, it is cauſed by the ſaid Vapors being endued with a Narcotick or Stupefactive power; which being mighty contrary unto the Heart and Vital Spirits, their action is thereby hindered, whence follows a cooling of the whol Body through defect of that Spirit which ſhould flow from the Heart, and a ceſſation of Reſpiration, becauſe there is now no need thereof. For ſeeing that drawing of Breath is neceſſary to cool our Hearts, when the Heart is extreamly cooled by the venemous Vapors aforeſaid, it needs none of that cooling which is cauſed by drawing in the Air, and ſo breathing ceaſes, becauſe there is no uſe thereof. We may alſo ſay, That the ſaid venemous and ſtupefying vapor, does aſſault the Brain, and hinder the Influx of the Animal Spirits, whereby the motion of the Midrif, and the Muſcles ſerving for reſpiration, is hindered; ad hereunto, That the Vital Spirits being deſtroyed, the Animal Spirits, which are made of the Vital, muſt needs be deſtroyed likewiſe.

In the place before alleaged, *Galen* reſolves a Doubt, which is this: That ſeeing it is generally held that a man cannot live without breathing, therefore it is impoſſible that Hyſterical perſons ſhould in their fits be quite deprived of breathing. To which he anſwers, That in an extream cooling of the

Heart there is no need of respiration, which if it were stopped, and the Heart vigorous and hot, present death would follow; but that little warmth which is yet remaining in the Heart, is cherished only by transpiration, or ventilation through the Pores of the Body; even as Creatures lying all the Winter in holes, do live only by transpiration, because they are exceeding cold, and that little heat they have, needs no ventilation by way of drawing in Air into their mouths.

Besides, The fore mentioned cause of Womb-suffocation, viz. A malignant and venemous vapor, some ad another, namely, The ascending or rising of the Womb into the superior parts of the Body, whereby the Stomach and Midrif are compressed; from whence, not only Hysterical Suffocations, but other sicknesses also do arise. This ascending of the Womb, *Hippocrates* propounded in his Book of the Nature of Women, in these words: *The Wombs of Women being turned from their Natural posture, do strive towards the Liver, and bear violently upon the Midrif; for they are carried upwards, seeking moisture to refresh them, being over dried with Labor; and the Liver is the fountain of pleasing moisture.* And *Fernelius* in his sixt Book of *Pathology*, that is, of Diseases and their causes, Chap. 16. saies, he had often felt the Womb thus ascending, bearing up against the Stomach like a round Globe, and grievously oppressing the same, from whence it hath been often thrust down by force of hand, and manifestly driven back into its own proper place. *Eustachius Rudius* in the Second Book of his Practice, in the 51. Chapter, saies the same thing, viz. That he with his own hands hath felt the Womb raised as high as the Navel, and sometimes above the same, and hath by little and little thrust the same down into its proper place. But *Galen* in his sixt Book of Parts affected, Chap. 5. opposes this Opinion, and teaches that although the Womb may in some sort be moved, and ascend, yet that motion and ascention is very little, neither is it any waies possible, That the Womb should ascend unto the Stomach, so far is it from being able to transcend the same so far as to reach unto the Midrif. A very strong Reason hereof is brought from Anatomy, seeing the VVomb is so fastened in its proper place by four very strong Ligaments, that cannot be lifted up so high. VVhereunto the Defenders of this Opinion do make answer, That in the falling out of the VVomb, those Ligaments are so relaxed that it is wont to come without the VVater-gate, and therefore it may ascend as far up as it can go down, when those Ligaments are relaxed or slackened. To this we reply, That the falling out of the VVomb comes to pass by little and little through length of time, by the moistening and softening of the Ligaments, caused by a defluxion of Flegm thereupon; but that which they call the Ascent or Rising of the VVomb or Mother, happens in a moment, and is as soon restored; and it is requisite that the Ligaments should have been first relaxed, and consequently all VVomen should be troubled with the falling out of their VVombs, who are subject to this Ascent or rising we speak of, because the occasions of this Ascent being ceased, the VVomb would of its own accord, and by its own proper weight fall downwards, and lie continually without the Body.

It is harder to make Answer to the Experience of *Fernelius*, *Rudius*, and others; of which they testifie themselves eye witnesses, who profess they have with their own proper hands perceived the Womb to ascend like a Globe or Bowl to the Navel and higher, being afterwards by them thrust down into its own proper, place. *Semmertus* makes answer to this, that the round body which was by them so felt, was not the Womb, but the Stones, with that blind Vessel, which from *Fallopius* the finder or first Observer thereof is called *Fallopious* his Trumpet, because he likened the same to the broad end of a Trumpet. For the Stones appertaining to the Womb being pendulous (that is, Hang dangling movable as on strings) and the Body of the Trumpet aforesaid being hollow as a pipe, lax and apt to move this way, and that way; when they are filled with corrupt Seed, with vitious Humors, and with windy Vapors, and swell and strout again, they may move this way and that way in the lower Region of the Belly, and ascend as high as the Navel. And that such a round swelling may happen in the Stones and Trumpet, as is sometimes felt in hysterieall Women. The observations of *Riolanus* may teach (propounded in his Book called *Anthropographia*, where he relates) that in hysterical Virgins such as have had the Womb-sickness, He had found their Stones greater than his Fist, strouting with wheyish seed; also the Trumpet of the womb amplefied or inlarged and very much widened. And *Salius* observed some such thing in a certain noble yong Damsel troubled with suffocations or strangling of the womb, in whom one stone was swelled to the greatness of a large hand-ball, being filled with a saffron-color'd humor, very stinking, and sending forth a filthy and poysonsom kind of vapor: Which humor dyed the adjacent parts yellow, just as we see the Gut Colon where it is carried under the Liver, is by the Bladder of Gall rendered of a clay-like yellowish Colour

Yet is not *Semmertus* very far from the judgment of the Authors aforesaid; for granting, as he saies, that the Stones and Trumpet of the Womb, being filled with corrupt sperm, vitious Humors, and vaporous winds, do strout again, move to and fro in the lower Region of the Belly, and can ascend as high as the Navel; seeing those parts are contiguous with the Womb, they cannot be moved in the Region of the lower Belly, nor ascend unto the Navel, unless the Womb be moved with them:

them: ſo that this motion may be aſcribed to the whol Womb very well, as it conſiſts of its owne perfect parts together with ſuch parts as are knit theire unto. Againe if the Stones and Trumpet being filled with vitious Seed, Humors or vapours, may be diverſly moued to and fro: Why may not the Womb being filled with like Humors and vapors, be moved with the ſame motion. The reaſon indeed of *Sennertus*, which he borrowed from *Galen* does convince, that the VVomb tied with four ligaments, cannot aſcend ſo high as the Midrif, no not as high as the Stomach; but it muſt not be denied, that it may be carried as high as the Navel, where the Authors aforeſaid perceived that Globe, both becauſe thoſe Ligaments may be ſomwhat ſtretched by matter working in them like yeſt, and like-wiſe becauſe the womb whiles it is blowne up, fils a greater ſpace, and may be perceived towards the Navel; ſo that whether the whole womb, or the parts faſtened there unto. *viz.* The Stones and the Trumpet be moved upwards, we may ſtill call it the Riſing of the VVomb or Mother and cleave to the Doctrin of *Hippocrates*.

Head-ach from the womb, comes divers waies; for ſomtime it poſſeſſes the whol Head, otherwhiles the forepart, and then again the hinder part thereof, and ſometimes it is felt about the Eyes, in ſuch manner as if the Patients Eyes would leap out of her Head.

Now theſe pains are cauſed by the aforeſaid ſharp and malignant Vapors mounting into the Head, and twitching as it were, or grating upon theſe Membranous parts: Alſo evil humors brought from the womb to the Head, may cauſe the ſaid pains. For vitious Blood; eſpecially the more thin and wheyiſh part thereof, aſcends from the womb into the Head, and being ſhed into the Membranous parts, breeds thoſe pains. VVhich pains are ſomtimes, pricking, ſmarting, and ſore as an Ulcer, by reaſon of the ſharpneſs of the Vapors, or Humors aſcending: Sometimes they are ſtretching, as it were, and ſwelling, becauſe of the plenty and multiplicity which diſcend and ſtretch: Somtimes they are pulſatory pain, beating like the Pulſe; when the Vapors or Humors are carried thither in the Arteries, or when the Arteries of ſome peculiar part of the Head are filled with over hot Blood.

The Falling-ſickneſs ſprings from the womb, being cauſed by the aforeſaid ſharp and malignant Vapors, which being poſſeſſed with a very great Acrimony and malignity, do vehemently, and ſharply ſmite the Nervous parts, whereby they come to be contracted, and whilſt they endeavor to expel what offends them, they draw themſelves together, and expreſs theſe convulſive motions.

Palpitation of the Heart, is often cauſed by the ſaid Vapors, being carried from the womb to the Heart, and provoking the expulſive faculty to the Heart.

Alſo a Pulſation is cauſed in the Arteries of the Back, and about the ſhort Ribs, by reaſon of an over hot Blood, carried from the womb into thoſe Arteries, and diſtending them, whereby their Pulſation becomes greater, which ſmiting the adjacent parts, cauſes a feeling of the ſaid Pulſation in them: Yet, ſomtimes ſuch Pulſations are cauſed in Hypochondriacal melancholly, which when we come to the Signs of this Diſeaſe, we ſhal diſtinguiſh.

Divers diſorders are likewiſe raiſed from the womb, in the ſtomach, liver, and ſpleen; from the ſtomach diſorders ariſe, as appetite loſt, or more than is fit, or deſirous of abſurd things; or Hiccoughs, Vomitings, Belchings, & Heart-burnings: al which Symptoms do ſpring from the aforeſaid vapors ſent into the ſtomach by the Hypogaſtrick, and Cæliack arteries, or other blind paſſages; & thoſe vapors do ſtir up this variety of Symptoms, according to the diverſity of their Nature, and the different degrees of their putrefaction, and malignity. For by their heat they cauſe want of appetite, and thirſt; but if they be cold they hurt digeſtion. And the coveting of abſurd things (as Chalk, Oat-meal, Smalcoles, Linſey-Woolſey cloth, &c.) is cauſed by the malignant quality of the Humors, and Vapors; as we have ſhewed in our Diſcouſe touching that Symptom: and according to the different kind of malignity, it comes to paſs that the Patients appetite inclines her too long, for this, or that od thing; as ſome for Coales, others for Clay, or Morter, Salt, Cinnamon, Nutmegs, &c. And from a certain kind of malignity ſprings likewiſe, the loathing of ſome certain meats; and which is more wonderful, in ſome hath been obſerved an univerſal loathing of al kind of Drink; as *Ludovicus Mercatus* relates concerning a noble Gentlewoman, which would not away with any Drink, and of another, who though ſhe deſired Drink, yet did ſhe Vomit it al up again, being likewiſe vexed with other grievous Symptoms. Where we may conjecture, that the evil Humors in that Gentlewoman, had attained ſuch a kind of malignity, as that is which cauſes Water-Fear in ſuch as have been bitten with a Mad-dog. It is, notwithſtanding, undeniable, that the diverſity of parts into which theſe Humors, and malignant Vapors are carried, conduce not a little to the variety of the Symptoms. For; If they are carried unto the mouth of the Stomach, they ſtir up Belchings, and Vomitings; if they ſtick to the Coates of the Stomach, they induce perpetual inclinations to Vomit; if they are endued with any ſingular Acrimony, they cauſe Hiccoughs, or pains of the Stomach; which pains may alſo ariſe from the plenty of Humors, weighing heavy upon, and ſtretching the parts containing.

The Liver is eaſily offended by menſtrual Blood retained, and by the Veins flowing back thereunto; hence ſprings the Green-ſickneſs, by reaſon of bad Blood flowing from the Womb into the Liver,

ver, and from the Liver shed abroad into the whol Body. Hence come Swellings, Feavers, and other Diseases very many, in the whol Body, and several parts thereof, forasmuch as all of them are nourished by the Liver.

But if the vitious Blood aforesaid do flow back from the Womb unto the Spleen, Swellings, Stoppings, and melancholick, and Hypochondriacal Diseases are wont to be raised.

And, To conclude, Women feel divers kinds of pains in their Loyns, Thighs, and other parts, which arise from filthy Humors, and Vapors conveighed from the Womb into the said parts: Al which Symptoms, taking rise from the Womb, shal be distinguished from others which arise from other parts, and are like them, but produced from different causes; in our following Description of the Signes of this Disease.

In the first place therefore, Womb-sickness is known for the most part by what hath already been said of it. For the fore recited Symptoms do appear therein, not al in every one, but some in one Patient, some in another, according to the differing condition of the Causes. Now these Symptoms are, Breathing, depraved so, as, sometimes the Patient seems to be choaked; otherwhiles her breathing is lessened, or wholly taken away, without any trouble or Sence of Suffocation; Refrigeration, or cooling of the whol Body, and stopping or Interception of the Pulse; somtimes also a taking away of Sence and motion; somtimes Ravings, Convulsions, Swoonings, Vomitings, and Hiccoughs are joyned together.

But for a more clear Discovery of this Disease, those Signs are first to be propounded, which shew the Disease approaching, such as have a noyse in their lower Belly (first from the Navel downwards) with belching or inclination to Vomit; Wearinesses, Yawnings, and stretchings, proceeding from a flatulent matter, which begins to mount from the Womb into divers parts of the Body; a sad Look pale Face caused by the drawing back of the Natural heat, from those Parts, to it's Fountains.

When the Disease gathers strength, a sence of strangling begins to trouble the Patient, as if they had swallowed some great mortel which stuck in their Throat. Afterward their breathing stops, and their Suffocation is increased. And in conclusion al their Vital, and Animal actions, are depraved, diminished, or abolished. Hence spring Ravings, Convulsions, and other grievous Symptoms. In some the Womb is sensibly tossed and tumbled, and gathered round like a Foot-bal; and felt after that manner in divers parts of the lower part of the Body. And when the Hysterical, or Womb-Fit begins to go over, a certain moisture flows out of the Water-gate, their Guts rumble, they list up their Eyes, redness springs up in their Cheeks, Sence and motion is restored, their Body grows warm, they fetch deep Sighs, and so the Sick-Party by little and little, is freed from her Fit.

By the Signs propounded, Womb-sickness may easily be distinguished from such infirmities as are of kin, or otherwise like the same, *viz.* the Syncope (Swooning-sickness) Apoplexie (blasting Planet-striking)) and the Falling-sickness: howbeit the difference between Womb-sickness, and those diseases aforesaid is peculiarly to be noted.

And in the first place, by three general Signs we may conjecture that these Symptoms which are common to Womb-sickness, and the aforesaid maladies, do proceed rather from the Womb, than from any primary misaffection of the Heart or Brain. The first whereof is, that if the sick Patient be subject to Womb-sickness, and hath been often anoyed with aforesaid Symptoms; when they come afresh, we may conclude the Disease to be no other than Womb-sickness. The second is, That when Women begin to feel those Symptoms, they complain that their Womb is out of order. A third is, That in Womb-sickness Women do feel great ease when stinking things are put to their Noses, and sweet smelling things are put in by the Water-gate, which in those other infirmities falls not out.

And the Hysterical, or Womb-sickness is more peculiarly distinguished from that which we cal Syncope, or the Swooning-Fits, because in the Syncope, the breathing and Pulse do wholly cease; but in the VVomb-sickness, it remaines in a small measure, til they come into the very height of the Fit, wherein is most danger. Secondly, The Swooning Fits come more quickly, and seaze upon the Patient, as it were on a sudden. But in the VVomb-Fit, there proceed evident tokens of the approaching Fit. Thirdly, The Patients Face is paler in the Swooning-fits, than in the Womb-fits; yea verily, some Women have a ruddy countenance in their Fits of the Mother, and than the Disease is sufficiently known by that Sign alone. Fourthly, In the Swooning Fits, we find commonly cold, and Diaphoretick Sweats, which in the Womb-fits appear not. Fifthly, The Swooning Fits are shorter, and the Patient is soon either wel or dead; but the strangling Fits of the Mother last longer, continuing a whol day, or divers daies together sometimes. But it is to be remembred, that the Swooning-sickness, and the Womb-fits are sometimes joyned together, when the Heart is more grievously afflicted than ordinary, or when the Patients strength hath been much weakned by protraction of the Disease; and then the Symptoms of both Diseases may be mixed one with another.

The Womb-Fit is distinguished from the Apoplexie; First because that in the Wombs-Choaking

king-Fits, the Joynts are not ſo looſened, neither is the Sence of feeling wholly gone, as in the Apoplexie; but if they be pricked, or have their hairs puld off, they give a ſufficient Sign with their Hands that they feel the pain. Secondly, In perſons Apoplectical, Planet-ſtruck (as the ſimpler ſort do phraſe it) there is a perpetual ſnorting of the Patient, but in the Womb-ſtranglings, not. Thirdly, Womb-ſtrangled Patients when their Fit is over, remember what was done and ſaid, during their extremity; but in the Apoplexie it is not ſo.

It is diſtinguiſhed from the Falling-ſickneſs; Firſt, Becauſe convulſive motions are not alwaies joyned with Hyſterical Suffocations; and thoſe that do accompany the womb-Fits, are not ſo Univerſal as in the Falling ſickneſs, but moleſt only one or two members. Secondly. The Pulſe is greater in the Fits of the Falling-ſickneſs, than it uſes to be when the Patient is wel; but in the Mother-Fits it is quite contrary. Thirdly, In the Falling-ſickneſs, the Patient fomes at the mouth, but in the Mother-Fits there is no ſuch foming. Fourthly, In the Falling-ſickneſs, the Patient remembers not what was done to her during the Fit, but in the Mother-ſickneſs ſhe remembers al, as we ſhewed before. Fiftly, Thoſe that have Fits of the Mother, do in the end of the Fit come to themſelves like perſons awaked from ſleep, with a noyſe in the lower part of the Belly, the Womb as it were becoming quiet, and returning to it's Natural place, and ſometime much humor flows from the Womb, which doth not befal ſuch as have the Falling-ſickneſs.

We muſt alſo enquire how ſuch as are in the Fits of the Mother, may be diſtinguiſhed from thoſe that are quite dead; ſeeing many Hiſtories relate that ſome Women in that Caſe have been accounted dead, appointed to buryal; yea, and ſome buryed. The waies which Authors preſcribe to make this tryal, are divers: For either they lay teazed wool, or light Feathers upon the Patients mouth, and if they ſtir not ſhe is given over for dead; or they apply a bright looking Glaſs to her mouth, which will be dulled with her breath, if ſhe be yet alive; or they ſet a cup full of water upon her breaſt, and if the water ſtir not, they account the party dead. Theſe Signs do for the moſt part hold good, but they are not perpetual, neither do they put the matter paſt diſpute; ſeeing as was ſaid before, ſome VVomen in theſe Fits do live only by Tranſpiration, as thoſe live-wights which live in holes al the winter, and fetch no breath at al by their mouths. VVhich though it very ſeldom fals our, yet it is a very good Caution, not to ſuffer women which die of this Diſeaſe, to be buried til the third day after their death, or at leaſt til they begin to ſtink.

The Signs of the Cauſes are likewiſe to be declared; which Cauſes we have ſhewed to be three, *viz.* Seed retained and corrupted; Menſtrual Blood in like manner retained and corrupted; and vile humors contained in the veſſels, or in the Cavitie of the womb.

If this Diſeaſe ariſe from Seed retained, or corrupted, there have preceeded al thoſe Cauſes, which might encreaſe, gather together, and corrupt the Seed in the veſſels; as flouriſhing age, ripe for Generation, or formerly accuſtomed to the actions thereof, which of late it hath left off; Sanguine complexion, an idle life, and given to pleaſures; a rich and plentiful table, with the uſe of ſuch meates as are eaſily corrupted. In ſuch perſons if the womb-Fits happen, they having their Courſes wel, we may gueſſe they come from Seed retained.

If theſe womb-Fits depend upon the Menſtrual Blood retained and corrupted, as their cauſe; the Patients Courſes are either wholly ſtopt, or flow very little, and to no purpoſe; and ſhe her ſelf is not to ſeek for carnal Embracements: but wel provided; And ſome Symptoms do attend this ſuppreſſion, as Melancholly, Waſpiſhneſs, Sluggiſhneſs, Drowſineſs, Head-ach, ſwelling of the Dugs heavineſs of the Loyns and Thighs.

That this Diſeaſe comes from evil Humors is known, by the Patient having her Courſes well, being exerciſed ſufficiently with actions of Generation, by her being ſtept into years, or being very full of evil Humors, or being troubled with ſome other Diſeaſe in her womb.

We muſt alſo ſet down theſe Signs of thoſe other Symptoms which we formerly deſcribed, as ſpringing from the womb.

Head-ach coming from the womb is known, becauſe the Patient hath not her Courſes right, the pain does chiefly trouble her, or is moſt increaſed, at, or neer the time of her Courſes flowing, and her womb is out of order. Alſo we may diſtinguiſh whether an Humor, or a Vapor cauſe this pain; for if the pain be not great, heavy, and preſſing, and come by fits; it comes certainly from a Vapor: but if the pain be continual, joyned with heavineſs, it ſhews an Humor contained in the part; which if it be Chollerick, the pain is biting, pricking, and acute or ſharp; if it be Flegmatick, it cauſes ſleepineſs; if Melancholly, Sadneſs.

Pantings of the Heart, and beatings of the Arteries about the ſhort Ribs and Back; Diſeaſes of the Stomach, Liver, and Spleen; and divers pains may be conceived to ariſe from the womb, if theſe other Signs and Symptoms of the womb affected, before recited, be likewiſe preſent. As alſo, if by putting ſweet ſmelling things to the water-gate, and ſtinking things to the Noſe, the Patient do find ſome kind of eaſe.

What concerns the Prognoſtick, or Predictions of this Diſeaſe; It it is a malady which ſeldom kills

kills the Patients, but uſes to ſtick a long time by them. But ſomtimes they are in danger of death by reaſon of ſwooning fits that happen, or by ſome extraordinary Convulſion. Likewiſe if the fits are frequent and hard to be removed, it is to be feared, leſt Reſpiration being ſo often hurt, the Native heat ſhould be ſuffocated, and the Patient come to die.

That Womb-paſſion is worſt, in which more parts are drawn into conſent; and that is bad which ſprings from corrupted Seed, or from a long ſuppreſſion of the monthly Courſes.

In Elderly perſons, this Diſeaſe is hardly curable, becauſe of that plenty of Corruption wherewith they are wont to abound. In yonger VVomen, it commonly ceaſes when they begin to bring forth Children.

In VVomen with Child, and that lie in Child-bed, it is a dangerous Diſeaſe; in the former, for fear of Miſcarriage; in the latter, becauſe of their weakneſs after Child-bearing.

For a VVoman troubled with theſe VVomb-fits, to ſneeze is good, for it ſignifies ſtrength of Brain; and by the motion of ſneezing, the Malignant Vapors which beſiege the Brain, are diſcuſſed; and likewiſe the vitious Humors contained in the VVomb evacuated.

A twofold Cure belongs to this Infirmity: one in the fit, another out of the fit. In the fit, thoſe vapors which cauſe it are to be diſcuſſed and drawn back from the part affected; the Humors contained in the VVomb which ſend up thoſe Vapors, muſt be voided; and the VVomb when it is removed out of its proper place (which often happens according to *Hippocrates*) muſt be reſtored to the ſame again.

Firſt therefore, The ſick party muſt be laid upon a bed in ſuch a poſture, that her Neck and Shoulders lie high and ſloaping, but her Thighs and Privy parts lie low and ſhooting downwards, for ſo the VVomb is more eaſily reduced.

Then muſt her lower parts be tied very hard, ſo as to cauſe pain; likewiſe they muſt be well rubbed and chafed; alſo Cupping-glaſſes are to be ſet upon her Hips; and a very large Cupping-glaſs ſet upon her Share is very profitable. But take heed that you do not apply a Cupping-glaſs upon the Patients Navel, which many ignorantly are wont to do, for by that means the VVomb is drawn upwards again. VVhen Convulſions happen, or ſwooning fits, hard rubbings with courſe cloaths are good upon the ſoals of the Feet, alſo with Vinegar and Salt; it is good likewiſe to pluck off ſome Hairs from the Head and Share, to cramp the fingers of the Patient, whoop aloud in her ears, and ſuch like.

It is alſo good to lay unto the ſoals of her Feet, this Epiſpaſtick, or drawing Cataplaſm or Pultis.

Take *Leaves of Artemiſia (Mugwort) Feaverfew, Rhue, of each a handful: Sage, half a handful: Pidgeons dung poudered three ounces: Black Soap an ounce and an half: Amber, Frankinſence, Maſtich poudered, of each a dram and an half: Juyce of Rue, and Vinegar, allayed with Water, as much as ſufficeth to make all into a Cataplaſm.*

At the ſame time, ſtinking and ſtrong ſmelling things are to be put unto her Noſe; as Partridg feathers burnt, old Leather burnt, and Brimſtone fired, Jeat or Agate Oyl, a Pomander of Aſſafœtida, Caſtoreum, Galbanum, Rue, moiſtened with Syrup of Artemiſia, or with Vinegar; Garlands of Rue, Tanzy, Wormwood. But if the VVoman be Epileptick, or ſubject to the Falling-ſickneſs, we muſt abſtain from the ſtronger things before mentioned, becauſe the Brain being therewith offended, is put into a Commotion, by which means the Humors are tumbled ſuddenly into the Ventricles thereof, and the Syptomes are made more grievous.

The ſmoak of Tobacco blown into the Mouth and Noſtrils of the Patient, does quickly free her from the fit.

Contrary wiſe, ſweet ſmelling things muſt be put unto the VVomb, as ſome grains of Muſk or Civet wrapped in Cotton-wool.

The following Pouder may be blown up her Noſtrils.

Take *white Pepper, Muſtard ſeed, Pellitory, Caſtoreum, of each one ſcruple; make it into a very fine Pouder.*

If the Patient be very much oppreſſed with her fit, let her be provoked to ſneeze, according to that Aphoriſm of *Hippocrates*, his 5. Section, 35. *To a Woman troubled with Womb-fits, or hard Labor, if ſhe happen to neeze it is good.* Neezing is many times provoked by the foreſaid Pouder; and if that alone will not do it, a little white Hellebore, or Euphorbium may be added.

Alſo Oyl of Amber or Agates, may be anointed upon her Noſtrils.

But laxative and wind-expelling Clyſters do exceed all other Medicaments, in diſcuſſing ſuch filthy Vapors as cauſe the fit: which may be made after this manner:

Take *Mercury Leaves, Pellitory of the wall, Mugwort, Penyroyal, Rue, Calaminth, of each one handful: Caraway ſeeds, Cummin ſeeds, and Bayberries, of each two drams: Boyl all to a pint and an half. In the ſtraining diſſolve* Hiera Picra, *and* Benedicta laxativa, *of each ſix drams: Oyl of Rue three ounces: Campire half a ſcruple. Mix all into a Clyſter.*

If

If the firſt Clyſter be not ſufficient, another muſt be given of the ſame or ſuch like Decoction, diſſolving therein, Diaphœnicon ten drams: Turpentine diſſolved with the white of an Egg one ounce: the aforeſaid Oyl, and half a ſcruple of Camphire diſſolved in Oyl of Water-lillies.

And in a word, The Diſeaſe continuing, a third Clyſter muſt be given meerly Hyſterical and diſcuſſing, but not purging, which will be very effectual, compounded after this manner:

Take *Oyl of Rue four ounces: Aqua vitæ one ounce: Canary Sack three quarters of a pint: Galbanum two drams: Mix all, and make a Clyſter, and adminiſter the ſame after a Laxative Clyſter.*

A Clyſter of Vinegar, tempered with Water, does preſently aſſwage the Mother-fit, by compreſſing and coagulating the vapors, which cauſe the ſame.

The ſame does a draught of Vinegar allaied with water, being taken in at the mouth.

Authors do likewiſe counſel that the Patients belly above the Navel, be ſtrongly girt with a ſwath-band, that the womb may be thereby reduced, and the vapors hindred from aſcending.

Concerning letting blood, it is a great queſtion, Whether it be convenient in the fit, or no? For ſeeing there is at that time a great weakneſs in the Patient, and ſomtimes deſpair of life, and the body is cooled all over by malignant vapors which infeſt the Brain and Heart, which can no waies be expelled by blood-letting; no queſtion the uſe thereof is very dangerous during the fits. And of this Opinion are *Varandæus* and *Sennertus*. But *Mercatus* and *Rodericus a Caſtro*, do determine contrarily, That a Vein ought to be opened in the Patients Ankle or Inſtep, when the Diſeaſe ſprings from an abundance of Menſtrual blood retained; and that the Patients ſtrength oppreſſed with the burden, the paſſages obſtructed with too much blood, and the danger of ſuffocation hence ariſing, can be remedied by no other means but bleeding; ſeeing in this caſe, neither ſtinking ſmels, nor ſweet ſmels, nor Cupping-Glaſſes, can bring the Patient out of her fit. *Philippus Hoechſtetterus* in the ſecond part of his Obſervations, makes it appear by certain Hiſtories, that bleeding in the Foot hath done much good: Inſomuch, as a certain Nun, which had been ſpeechleſs, and in Convulſion fits for two daies together, two hours after ſhe had bled, began to ſpeak, and to eat and drink. I am of Opinion, a Vein may be opened, if the Pulſe be ſtrong, and there be evident tokens that blood doth ſuper-abound: But if the Pulſe be weak, we muſt forbear, and ſtay till the fit is over for a more convenient ſeaſon, in which blood may be ſafely taken away.

Plaiſters are profitably applied under the Navel, of the Maſs of *Emplaſtrum Ceroneum*, which mollifies and diſcuſſeth, and ſo is better than the vulgar Womb-Plaiſter, which doth ſomwhat bind, and therefore may retain the vapors and malignant humors. Plaiſters are likewiſe made of Galbanum and Aſſafœtida, or of Caranna, and Tacamahaca, either alone, or with ſome Spices mingled with them. As for Example:

Take *Gum Caranna half an ounce: Pouder of Nutmegs, and Cloves, of each half a dram: Oyl of Amber four drops: Turpentine two drams. Make all into a Plaiſter. Such Plaiſters are to be made in faſhion of a Shield, or Scutcheon. and in the pointed part of the Plaiſter, which muſt be laid towards the Water-gate, ſome grains of Muſk or Civet are to be put, that they may ſend forth a ſweet ſmell, and thereby allure the Womb back again. Three grains of Muſk may be put in a little Cotton, moiſtened with Oyl, and thruſt into the hole of the Navel: then lay on a ſmal Plaiſter of diſſolved Galbanum. This ſome Women uſe for a Secret.*

Or four grains of Camphire may be diſſolved in Oyl of ſweet Almonds, and put into the Navel, and a Diapalma Plaiſter laid over it.

If the Diſeaſe ſeem to be foſtered by plenty of wind and vapors, Fomentations and Baths will be good, of the Decoction of Rue, Mugwort, Time, and Calaminth, Fennel ſeed, Annis ſeed, Cummin ſeed, Bay-berries, Chamomel Flowers, Dill flowers, &c.

Alſo little bags may be prepared with Cummin ſeed, Annis ſeed, Carrot ſeed, Salt, Rue, Bran, in them, and applied very hot, and often renewed Or,

Take *Oyl of Rue four ounces: Spirit of Turpentine half an ounce: Mingle them, and dip therein a piece of Bread hot out of the Oven, and lay it upon the Navel.*

Alſo it will be good to anoint the lower part of the belly, the Region of the womb, Share, and Loyns; becauſe ſuch anointings do dilate the Paſſages, attenuate the Vapors, and diſcuſs them. They may be made of Nard Oyl, Spike Oyl, Oyl of Dill, Seſamine, Saffron, Lillies, and Sweet Almonds.

Authors do very much commend a fume of the warts which grow upon Horſes Legs; which being dried in an Oven, and beaten to Pouder, they are burnt under the Noſes of women in theſe fits as a preſent Remedy, whereby women are wont to be in an inſtant delivered of their fits, to the admiration of the by-ſtanders.

If the Diſeaſe ſpring from Retention of Seed, nothing is better than carnal Conjunction, as ſoon as the Patient is out of her fit, if ſhe be married.

Inſtead of carnal Conjunction, where that cannot be had, many adviſe that the Patient be rubbed and

and tickled by a Midwife in the Neck of her womb, into which the Midwife must put her fingers anointed with Oyls of Spices, that so the offensive Sperm may be voided. But seeing that cannot be done without wickedness (understand by a silly superstitious Papist, that counts it a meritorious good work to burn Mother and Child in her womb alive, as at *Jersey*, and a wickedness to free a sick body of a little offensive humor) a Christian Physitian must never prescribe the same.

To Discuss those malignant Vapors which cause the womb-fit, many Medicines are wont to be given down the Throat, among which is a dram of old Venice Treacle, with water of Mugwort, Penyroyal, and Balme; Troches of myrrh, to the quantity of two scruples: or Oyl of Amber to five or six drops, with the said Liquors.

Pills are frequently used; the best are made after this manner.

Take *Castorium, Myrrh, Assa-fœtida, of each one scruple: fœcula Brioniæ half a scruple: seeds of Rue and Saffron, of each seven grains: with Syrup of Mugwort make twelve pills. Let her take three or four; if she cannot swallow them, let them be dissolved in Water of Mugwort.*

These following Pills are good in a violent fit, which they are wont to remedy without fail.

Take *Assafœtida one scruple: Castoreum six grains: Laudanum three grains; make all into three or four Pills. Let her take them presently.*

Pilulæ Fœtidæ majores, although they be purging, yet are they given to good purpose in the Fit, to half a dram. For they gently evacuate, and are not wont to work till the fit be over; so that there is no danger in their working.

Also many waters are wont to be given in the fit, *viz.* *Aqua vitæ*, Cinnamon water, or Treacle water.

Or a specifical water may be made after this manner.

Take *Zedoary roots, Carrot seeds, Lovage roots, of each two ounces: red Myrrh, Castoreum of each half an ounce: Piony roots four ounces: Misleto of the Oak gathered at the wain of the Moon, three ounces: power upon all these being prepared, four pints and an half of Feaver-few-water. Spirit of Wine half a pint; let them digest three daies, and afterward still them. The dose is a spoonful, by it self, or with some other convenient liquor.*

A more easie water to make, more pleasant to taste, and no less effectual is this following.

Take of *the juyces of Bawm, and Borrage clarified, of each two pints: the best Saffron one dram. Let them be infused, and distilled in* Balneo. *The Dose is a spoonful with Broth. This following potion is vulgarly used.*

Take of *Cinnamon Water half an ounce: Turnep Water four ounces: Castoreum four grains. Make all into a potion, or draught.*

Oyl of Amber given to three or four drops, in Orenge-flower-water, or some other specifical, doth quickly rid away the womb-fit.

The following potion is wont to do very much good, as it is to be seen in our observations.

Take *Water of Mugwort, Roses, and Orenge-flowers, of each one ounce: Cinnamon Water three drams: Confection of Hyacinth stone one dram: Diamargaritum frigidum (that is the cooler perled pouder) half a scruple: Saffron four grains. Make them all into a potion.*

Orange flower water doth good alone, given three or four ounces; but mingled with Musk, and Dragons blood, it doth wonders: witness *Solenander* in these words. *A certain Woman was vexed with most cruel Symptoms, Head-ach, Belchings, contraction of the Body, pain in her Groin, grinding of her Teeth; somtimes falling to the ground speechless, with her mouth shut, so as she could not open it; and all this through disorder of her Womb. Many remedies being used in vain, a certain old Woman comes, and gives her thirteen grains of Musk, and as many of common Dragons blood, in four ounces of Orenge-flower Water; she was cured, and never felt the like griefs any more. I have in the like case given the same Medicine divers times, and alwaies with good effect.*

An Elks Claw is also very good in these fits, according to the experiment of *Appollonius Menabens* in his Treatise of the Elk, Chap. 10. in these words. *I confess I have both heard from others, and found by my own Experience, that an Elks Claw is a present remedy for the Suffocation of the Mother. For being called to help a Woman in those Fits, I gave her the raspings of the Elks Claw with Zedoary, with which, and with other remedies administred according to the rule of Art, I did the Cure with Honor. And when I understood, that she was wont to be troubled with those Fits oftentimes, I injoyned her to wear a piece of Elks Claw continually about her Neck: Which when she diligently observed, for the space of three months that I was in the place, she was ever free from those Fits, and gave me often times thanks for my advice.*

Camphire fired, and cast into the water, and there abiding till it be quenched, is an excellent Remedy, given to the quantity of a dram.

The Cats-tails of the walnut, in the Epistles collected by *Laurence Scholtzius*, in the Letter written from *Thomas Mouset* to *Peter Monavius*, are extolled with this Commedation. *In Strangulation of the Womb, the Cats-tails of the Walnut tree, are a singular Medicine being dryed, and poudered.*

Yoe

You may give two ſcruples with two drops of Oyl of Amber. I never knew any thing more excellent in that Diſeaſe.

Two moſt excellent Remedies may be made in the form of Pouders, which I have oftentimes tried.

The one is of the After-birth of a woman that lies in of her firſt Child dried in the Chimney, and beaten to pouder. The Doſe is a dram in ſome convenient liquor. It preſently takes away the fit.

The other is made of two parts of Brimſtone, and one of Nutmeg. Pouder them and give a dram.

Pouder of Jeat given to half a dram, or one dram, will do much.

The Pouder of Elder-berries of Quercetanus taken a dram in Wine, cures the Epilepſie, or Falling-ſickneſs, by conſent of the Womb, and being taken the ſecond time, makes that the fits return not.

Where that Pouder cannot be had, the ſame quantity of Soot from the Chimney, may be given in an Egg ſoft boiled.

And becauſe the Womb is oftentimes filled with evil, and Excrementious Humors, from whence ugly Vapors are raiſed up; we muſt be careful to purge the ſame, which may be moſt conveniently done by this following Peſſarie.

Take *Diaphœnicon one dram: pouder of Hiera picra half a dram: Turpentine three drams: mix all, and with Tow make a Peſſary.*

For her ordinary drink let the Patient drink a thin weak Decoction of Cinnamon, Caraway, or Annis ſeeds.

Touching Wine, It is a queſtion whether it may be given a Woman in theſe fits. *Hippocrates* in his firſt Book of the Nature of Women ſeems to commend the ſame: and there is much reaſon to back his opinion. For an extream refrigeration of the Body, and Languiſhment of natural ſtrength, cannot be better holpen, than by giving the Patient a Cup of rich Canary. But *Avicenna* wholly forbids it. And indeed, Becauſe this Diſeaſe depends for the moſt part upon Seed retained, or of Blood and foul Vapors carried up from the Womb: Wine by it's thinneſs, and exceeding piercing faculty, doth more exagitate and vex the morbifical matter. Whence we ſee by common Experience, that Women troubled with this Diſeaſe, are worſe if Wine be given in their fits. To Compoſe this Contention, we ſay; that Wine ordinarily is not to be given during the fit, but upon extraordinary occaſion: Namely when the Patients ſtrength is extreamly decai'd, ſhe hath Swooning fits joyned with the Mother fits, or ſeems to be at the laſt gaſp: all other Remedies tried in vain, we make uſe of Wine as our laſt Refuge, and preſent help.

In this Cure we muſt be very careful, if the Patient be with Child, and prudent in our adminiſtration of Medicaments; neither muſt we uſe thoſe more vehement and ſtinking ones, leaſt we cauſe miſcarriage; and we muſt perform the Cure rather by outward than inward Medicaments.

In the Courſe of the Cure, care muſt be taken of the Heart and Brain, and if they ſeem much oppreſſed, they muſt be releived by ſuch Medicines as are proper unto them. To the Heart, Wine, and Orange-flower-water, or Imperial water, or Treacle of Andromachus diſſolved in Wine, muſt be applied by wetting things therein, and laying them upon the Region thereof; or hot living Creatures are to be applied thereunto. For to ſtrengthen the Head, thoſe Remedies muſt be uſed, which are ſet down in our Chapter of ſleepy Diſeaſes.

When the fit is over, Care muſt be taken to prevent the return thereof, either wholly, or at leaſt for a long time: which is done by a removal of the Cauſes, and by ſtrengthening the Womb.

In the firſt place therefore at a convenient ſeaſon; but eſpecially in the Spring and Fall, the Patient muſt be yeerly evacuated, beginning with a purging Potion, or ſome other Medicament ſuitable to the nature of the Patient; alwaies adding Hyſterical things.

And then, If Blood ſeem ſuperfluous, it muſt be drawn firſt out of the Arm, and then out of the Foot; chooſing as neer as poſſibly the middle ſpace between the Patients monthly purgations.

Afterwards, That the redundancy of evil Humors may be ſufficiently prepared and purged out, an Apozeme muſt be compounded, altering, opening, and purging, to be given at four or five times.

If Nature ſeem to incline to the opening of the Hemorrhoids, they muſt be opened by application of Leeches. And *Mercatus* doth witneſs in his 13. and 14. Counſel, that they have much profited in theſe fits.

After general purgation, to diſcuſs the remainders of the morbifical matter, a ſweating Decoction will be good to give divers daies together; made of Saſſafras, Guajacum, with ſeeds of Fennel, Rue, and Agnus Caſtus.

To the ſame intent Sulphurous, and Bitumenous Baths will be very good, ſuch as we have at *Baleruca*, by whoſe uſe many are holpen, as daily experience ſhews.

In this Disease being of long continuance, besides the remedies aforesaid, it will be good to purge the Patient frequently, by usual Pills, Syrups or Potions. VVhich may be made after this manner,

Take *Troches of Agarick one dram and an half: Hiera of Coloquintida one dram: Carrot seed, Agnus Castus seed of each one scruple: mirrh, Castoreum, Diagrydium of each half a scruple: Turpentine, as much as shall suffice to make all into a Mass. Let her take hereof half a dram, or two scruples twice or thrice in a month.*

The following Syrup is mightily extolled by *Mercatus*, as a wonderful Syrup, and very profitable for all womb-sick women. in his 13. Counsel.

Take *Juice of Herb Mercury and the Cream of Carthamus seeds of each six ounces: Scorzonera water seven ounces Sugar as much as shall suffice to make it into a Syrup. Add hereunto while it boyls, Confection of the Hyacinth stone, Confection of Kermes Berries, and Pouder of the Electuary* de Gemmis [*that is, made of precious Stones*] *of each two drams: Let the Dose be two or three ounces.*

Take *Briony Roots three drams, Senna Leaves half an ounce: Agarick two scruples: Ginger one scruple: Cinnamon one dram: Let them steep all night in Fountain water. In the straining mix one ounce: of syrup of Damask Roses. Make hereof a potion to be taken twice or thrice in a month.*

Pilulæ fœtidæ majores [that is strong smelling Pils made of Gums] taken twice in a month to half a dram, are very profitable.

In such as easily vomit, it is good to provok to cast, once or twice in a month, after this manner:

Take *Agarick cakes* [*troches of Agarick*] *one dram and an half: Oxymel one ounce: Bawm water, and Mugwort water, of each three ounces: Mix all into a vomiting Potion.*

Chymists give salt of Vitriol in some appropriate water, from half a dram to one dram, and cry it up for a specifick remedie in womb-fits.

After all particular evacuations are ended (that is after each evacuation) some strengtheners are to be administred, such as this following Electuary.

Take *Conserve of Rosemary flowers Betony, and Bawm, of each one ounce and an half: Species of the musked Electuary, and of Electuary of Calaminth of each half a dram: With syrup of Mugwort Make all into an Electuary.*

Treacle by it self is very proper for this occasion, which for hotter constitutions may be tempered by the mixture of Conserve of water Lillies, Maiden-haire &c.

But the following pouder is far more effectual, which heales old and stubborn womb-fits, if it be frequently taken one dram at a time, in Wine, in a bolus or morsell made up with syrup of Mugwort.

Take *Gentian Roots, white Dictamnus, tormentill, pellitorie, Rhaponticum, Bistort, Aristolochia, or Birthwort the rounder, Chamelion thistle, Bay-berries, Angelica, Master-wort, Coriander seeds prepared, annis seed, juniper berries, Mastich, Bole armoniack,* Terra Sigillata, *of each two drams and an half: Orientall Saffron three ounces and an half. Make all into a fine pouder, and keep it in a close vessel.*

Neither must we omit such Medicaments, which are wont to help these fits by a peculiar property thought to be in them: An Example whereof may be this that follows, made in Pills, because of the ungrateful taste of the Simples.

Take *Assa fœtida half a scruple: Castoreum, Mirrh, Galbanum, Sagapenum, of each one scruple. With Honey of Mercury make a Mass; of which give the Patient half a scruple, or a scruple frequently.*

Platerus makes Pills of extreamly odoriferous Ingredients, after this manner:

Take *of Musk six grains: Benjamin half a dram: Sugar one dram: With Cinnamon Water make them into a Mass for Pills. The Dose is half a scruple.*

Those Hysterical Waters before set down to be given in the fits, may likewise be profitably used out of the fits, a spoonful or two in a morning, when the Patient is free, by way of prevention.

Mathiolus extreamly commends the Briony Root, in these words: *Briony doth wonderfully help Women subject to strangulations of the Womb, so as to free them from their choaking fits, and cure them. Truly I knew a Woman, dayly almost vexed with these fits for a yeer together, who being at last taught by an ordinary Herb-man, to drink white Wine, wherein an ounce of Briony Root had been boyled, once in a week, when she was going to bed: when she had used this Medicine for a yeer together, she was perfectly recovered of that Disease.*

The Liver of a Wolf dried, and one dram taken, may prevent the fits of the Falling-sickness proceeding from the Mother, if it be given three or four times after an ordinary Purgation.

The Chymists do commend *Vitriolum Martis* [that is, Vitriolated Steel, or chalybeated Vitriol, or Salt of Steel] whereof they give a grain or two, with a double quantity of Sugar, many daies together, in Wine or other fitting Liquor.

And

And the Truth is, it may be given to twelve, fifteen, and twenty grains in ſome convenient Conſerve; or it may be made into Pills, with Mucilage of Gum Tragacanth.

Cream of Tartar frequently taken, is alſo very good in the Cure of this Diſeaſe.

Theſe two Medicines do good, not only by opening, but alſo by cooling; for oftentimes an hot diſtemper is rooted in the womb of VVomen ſubject to this Diſeaſe, ariſing from Blood retained within its Veins, and over-heated; as *Galen* ſaies in Hypochondriacal Melancholly, That there is a burning diſtemper in the Parts under the ſhort Ribs, by reaſon of blood retained in them by obſtructions, and there over-heated. Thoſe things therefore which have power to cool the Womb, are very proper in this caſe, ſuch as are Baths to ſit in, Vinegar and Water mingled and drunk down, or injected, and ſuch like. Unto which we may add the Hiſtory related by Dr. *Harvey*, touching the Childing of a woman long afflicted with womb-fits, not curable by all that could be done; who at length, after many yeers, was cured by means of the falling out of her womb: Becauſe her Womb expoſed to the Air was cooled, and ſo its Inflamation and hot diſtemper was repreſſed.

Alſo the uſe of Steel it ſelf is much commended by ſome Practitioners, as very convenient for all Infirmities of the VVomb. VVhoſe Preparations look for in our Cure of Obſtructions of the Liver.

Iſſues made in the Thighs, are likewiſe very good. For they derive and turn aſide evil Humors from the womb, by reaſon of thoſe Veins which are common to the womb and Thighs.

Neither are Amulets to be neglected, faſtened about the Patients Neck, and hanging down upon her Navel, as we formerly mentioned touching the Elks Claw, good in this caſe.

Some commend Peucedanum, or Hog-fennel root, hung in a ſtring about the Neck. And our women do with good ſucceſs, wear a piece of Aſſafœtida in a thin rag of cloth. I have known ſome that have worn a Foxes Pizzle and Stones dried, tied about their Neck in a ſtring, and reſting upon their Navel, and by that means preſerved themſelves from the womb-fits.

Some wear a piece of Wolfs fleſh dried, or of the Liver of a Wolf, not without profit.

As for external Remedies after every Purge, or at leaſt once in a month, eight or ten daies before the monthly Purgations of blood, Fomentations or Baths to ſit in will be good, that the Humor cauſing this Diſeaſe being reſolved, may more eaſily find its way by the opened Paſſages of the Courſes, and flow out with them. They may be made of the Roots of Marſh-mallows, briony Roots, Orris Roots, Madder, Valerian, Angelica, Mugwort Leaves, Nep, Feverfew, Bawm, Bayberries, and ſuch like.

To diſcuſs the remainders of the Matter cauſing the Diſeaſe, and to ſtrengthen the Womb after Fomentation, or ſitting in a Bath, as aforeſaid, the following Plaiſter may be laid on under the Navel.

Take *Gum Tacamahacca and Caranna, of each two drams: Alipta Moſchata half an ounce: Agnus Caſtus ſeeds, one dram and an half: of each of the Sanders half a dram: Turpentine, Labdanum, Wax, of each as much as ſhall ſuffice to make a Plaiſter.*

If this Diſeaſe ariſe from the Seed retained, uſe thoſe Remedies which we have formerly ſet down to quench and diſcuſs Seed in our Cure of Womb-Fury.

Chap. 7. *Of Inflamation of the Womb.*

INflamation of the Womb, is a Tumor or ſwelling of that Part, ſpringing from blood that is ſhed into the ſubſtance thereof.

And the ſaid Inflamation poſſeſſes either the whol Womb, or ſome part thereof; and it is produced either by pure blood, and is called meerly *Phlegmont*, an Inflamation; or it comes from blood mingled with Choller, and it is called *Phlegmone eryſipelatodes*, a chollerick Inflamation of kin to the Roſe, or St. Anthonies fire; or it hath its original from blood mingled with flegm, and is called *Phlegmone œdematodes*, a flegmatick Inflamation; or it comes from blood mingled with Melancholly, and is called *Phlegmone Scirrhodes*, which is a Melancholick Inflamation or Swelling.

The Cauſes which produce or encreaſe this Diſeaſe, may be divers; viz. A Sanguine Conſtitution over loaded with blood, or infected with chollet; a natural looſneſs of the womb with wideneſs of the paſſages, air extream hot, inflaming the humors, or very cold compacting & knitting them together, and ſo ſtopping the monthly Courſes flowing, or ready to flow; vehement Exerciſe, immoderate carnal Conjunctions, a blow or fall lighting upon the Wombs Quarters; Perturbations of Mind more violent than ordinary, eſpecially wrath; acrimonious or ſharp vehement meats, of a hot nature, and whatever elſe is taken in of a fretting and vehement operation, as Authors report of Cantharides, That they are very hurtful as well to the womb as the bladder; ſharp Peſſaries long time uſed, or purging Medicines, or ſtrong alteratives, ſuch as barren women are wont to take and rend from all quarters; Retention of the Courſes encreaſing the over fulneſs of blood; or over great flux of Courſes relax-

ing the Passages, and bringing the Humors from all the parts of the Body to the Womb; likewise Cupping-glasses fastened about the privy parts, may violently draw the blood and humors unto the Region of the Womb, and there detain them. Laborsom Child-birth may cause as much; Abortion, a violent handling of the parts of Generation by an unskilful Midwife; and a troublesom inconvenient bearing of a Child in the Womb.

The Signs to know the Disease by, are, Swelling, Heat, and Pain in the Region of the Womb, with a continual Feaver. But because the strait Gut (that is, that which is united to the Dung-gate) and the Bladder, do lodg in the same quarters with the Womb, therfore must we distinguish this Disease by other signs: such are, Suppression or diminution of the Courses, and their paleness or yellowish citrine color, with pain in their coming forth; and in the absence of the Courses certain stinking and rotten stuff sweats through the Vessels of the Womb, and bedews the VVater-Gate. Wherento if search be made, it will plainly discover the Disease; for the inner mouth of the womb will be found to swell, to be drawn inwards, and subject to pain if touched; the neck of the womb will appear red and inflamed, the Veins dispersed there-through, strutting with blood.

If the whol Womb be inflamed, all Symptomes will be more vehement. If the Inflamation be rather in the neck of the womb, the heat and pain is spread most towards the Groyns and the Water-Gate. If the former side of the womb do suffer, the Bladders fellow-feeling wil be the greater: If the hinder side of the Womb be inflamed, the strait Gut will be more compassionate, and the pain wil stretch it self towards the Loyns. If the right or left side of the womb be inflamed, the heat and pain wil appear most about the one Groyn; and the Thigh of the same side wil be heavy, and as it were in a sort burdened.

The Signs of the Causes are these. If the Inflamation spring from pure blood, al the Symptomes are milder; but if there be Choller mingled therewith, the Feaver is more burning, and al the Symptomes are more vehement; but if the blood be Flegmatick or Melancholick, the Feaver wil be less acute, but the Disease more lasting, and more stubborn. And here we are to consider such Signs as may inform us what Humor is most predominant in the whol Body.

If the Inflamation turn to an Impost hume and gather Matter, the pain and Feaver are encreased, and shaking fits come without any certain course, yet commonly they take their turn about Evening. And al the other Symptomes are heightened. When Suppression is accomplished, al the Symptomes are mitigated, and Swelling rises higher, whereby sometimes the Excrement of the Guts, or Urine is stopped. But if the Inflamation be discussed without Suppuration, the Swelling lessens, and the Symptomes becomes gentler.

If it turn to a Scirrhus (that is, hard swelling) the Feaver, Pain, and other Symptomes are diminished; the Swelling abides, becomes harder; likewise the weight and heaviness remain, both in the womb, and the adjacent parts, so that the Patient can hardly stir her self.

A good Prognostick cannot be made of this Disease because it is very dangerous, and for the most part deadly. But more or less danger is threatened according to the greatness of the Disease, its Causes and Symptomes, as thus:

If the Inflamation possess the whol Womb, its a desperate Disease; but if only a part be inflamed, there is some hope of help.

If a VVoman with Child have a Chollerick swelling in her womb, its deadly. *Hipp.* Aphor. 43. Sect. 5. For the Child dies by reason of the greatness of the Inflamation, whereupon follows Abortion, which coming upon the back of a grievous disease, kils the Mother. *Galen* in his Comments upon this Aphorism, doubts if this be not true of every Inflamation of the womb as well as of the Chollerick, and whether it be possible that a Child in such a case can live.

Inflamation of the womb easily degenerates into a Gangrene, Because the womb, as it were the Bodies Close-stool, receives a mighty charge of nasty Excrements, by which the inbred heat is easily suffocated.

Ravings, turning of the womb, Hiccoughs, Coldness of the Hands and Feet, Diaphoretick sweat seizing on a woman in this Disease, do portend sudden death.

If an Inflamation of the womb come to Suppuration, its hopeful that it may be cured; but a foul Ulcer will follow, which wil make the Patient to pine away with a lingering Feaver, or to fall into the Dropsie.

If the Inflamation turn into a Scirrhus, the evil becomes lasting, and often brings a Dropsie.

To cure this Infirmity, the Course of the Blood to the Womb is to be drawn back, it is to be driven from the womb, it is to be diverted another way: that which is flown in and contained in the part, is to be resolved. And if the swelling tend to suppuration, it is to be furthered, and when it is broken, the Matter or Quittor must be voided out; Which may be done by the following Remedies.

An Emollient and cooling Clyster being premised, let Blood be drawn from the Basilick Vein of the Arm, on that side on which the Womb is most affected; or from both Arms, if the swelling be in the

the whol Womb; and let the Blood-letting be repeated twice, thrice, or four times, according to the ſtrength of the Patient, and the greatneſs of the Inflamation.

After ſufficient Revulſion, the Diſeaſe being come to its height, when there is no longer ſuſpition of any preſent flux into the Womb, the lower Veins are to be opened, to derive from the part affected. In which ſence we muſt underſtand, *Galen* in his Book of Blood-letting, and in his 13. Book of the Method of Healing, where he teacheth, That in the Inflamation of the Womb, we muſt open the Veins about the Knees and Anckles. But ſo long as there remains any Indication of Revulſion, it is better to open the Veins of the Arm.

Alſo to revel or draw back the Humors, Frictions are good, and Ligatures or bindings of the uper parts, and Cupping-Glaſſes ſet upon the Shoulders, Loyns, and Back.

If vicious Humors (eſpecially Chollerick) do abound in the Body, which are as it were the Coach of the other Humors to hurry them about the Body; they are to be evacuated with gentle Medicaments, as Syrup of Roſes, and Syrup of Violets ſolutive, Manna, Rhubarb, Catholicon, or Electuary Lenitive; for ſtronger Medicaments by ſtirring the Humors over much, would excite the Flux of Humors more abundantly to the part affected.

And vomiting Medicaments, though preſcribed by *Avicenna*, ſeem no way convenient in this caſe: For if they be mild and gentle, they evacuate nothing to ſpeak of: If they be ſtronger, they cauſe a great Agitation in the Body, by which means the Humors being in a Commotion, may flow more plentifully into the part diſeated.

In regard of the greatneſs of the Feaver, cooling Medicaments are to be uſed, as Juleps and Emulſions; whereunto, if very great wakings, pain, and tumblings and toſſings do diſquiet the Patient, ſome Narcoticks may be added, which may likewiſe be given by themſelves.

After the Firſt Evacuations, let outward Medicines be applied to the lower part of the Belly, between the Navel and the Share, and about the Kidneys; firſt of all repelling and cooling things, in the form of a Liniment, an Epithem, and Cataplaſm.

The Liniment may be made of Oyl of Roſes waſhed in Vinegar, or of Oyntment of Roſes, *Ceratum Santalinum*, or *Galens* cooling Oyntment, with a little Vinegar added.

The Epitheme may be made of the Waters or Decoction of Plantane, Sorrel, Nightſhade, the tops of white Poppies and Roſes, adding a little Bole-Armoniack, Dragons Blood, and *Terra Sigillata*.

The Cataplaſm or Pultiſs may be made of the Crums of fine Manchet boyled with Milk, to which a little Oyl of Roſes may be added, with Juyce of Henbane, Nightſhade, and the whites of Eggs; or of Barley Meal, Linſeed, Fenugreek ſeed, with Oyl of Roſes; whereunto likewiſe the aforeſaid Plants being bruiſed may be added.

Injections muſt be made into the Womb, compounded after this manner:

Take *Plantane Leaves, Water-lilly Leaves, Nightſhade, and Endive, of each one handful: red Roſes two pugils. Boyl all till a third part of the Water be conſumed: and add to the ſtrainings Oyl of Mirtles one ounce: Vinegar half an ounce. Make an Injection.*

Of the ſame Herbs bruiſed with Oyl of Roſes and Vinegar, Peſſaries may be made, and put into the Womb.

Neither muſt Repelling, and Refrigerating Medicaments be long uſed, leſt the Swelling harden and degenerate into a Scirrhus. Wherefore ſoftening and diſcuſſing things are to be mingled with the repelling Simples; with this Proviſo, That the longer the Inflamation is from its Infancy, the greater muſt be the quantity of Digeſtives. So that to the foreſaid Medicaments may be added, Mallows, Marſh-mallows, Mugwort, Fenugreek, Chamomel, Melilot; their Doſe being augmented or diminiſhed, as the caſe ſhall require.

In the mean while, if the Patient be coſtive, ſhe muſt be helped by gentle Purgatives. Yea, and the truth is, frequent Clyſters may do a great deal of good to temper the Inflamation, ſeeing the Womb reſts upon the ſtreight Gut, called *Inteſtinum rectum*. But let them be little in quantity, that they may be kept the longer, and that they may not compreſs the Womb; of which this may be an Example.

Take *Marſh-mallow Roots, the Leaves of Mallows, Violets, Lettice, of each one handful: Nightſhade half a handful: Violet-flowers, red Roſes, of each a pugil: fowr Prunes, ten: boyl them in Barley Water. In ſix ounces of the ſtrained Broth mix three ounces of Oyl of Roſes, and make all into a Clyſter.*

If the Patient be in great pain, to the aforeſaid Clyſters may be added, the Yolks of Eggs, the fat of an Hen, Breaſt-milk, Mucilage of the ſeeds of Fenugreek, Lin-ſeed, or Mallows; yea, and a little quantity of Opium, with ſome Saffron.

In ſuch a caſe, Injections into the Womb may likewiſe be made, of Goats or Sheeps Milk, with Opium and Saffron, of each three or four grains, and a little Roſe Water.

Or

Or unto Pessaries may be added a little Opium with a little Saffron, the whites of Eggs, and Oyl of Roses. Or Pessaries may be made of *Philonium Romanum* with Cotton. Or a Fomentation to ease pain, may be prepared on this manner:

Take *Marsh-mallows Branch and Root, Violet Leaves, of each a handful: Chamomel, Melilot, Roses, of each a pugil. Boyl all for a Fomentation.*

When the Disease begins to decline, Purgation is to be iterated with gentle Purgatives. And when the Disease tends to a Resolution or Conclusion (which is known by remission of the Symptomes, and because the part is not so oppressed with any Heavinesse) Discussives must be used in greater quantity than any of the foregoing Medicaments. Or this Cataplasm may be made.

Take *Pouder of Marsh-mallow Roots one ounce: Chamomel and Melilot flowers, of each two drams: Mugwort Leaves poudered, Barley and Bean meal, of each half an ounce: boyl them a little in harsh red Wine; add new Hogs Grease, Oyl of Chamomel and Lillies, of each one ounce. Make a Pultiss or Cataplasm.*

Fomentations and Baths to sit in, may likewise do good in this case.

If the swelling cannot be discussed, but seem to tend to suppuration, it is to be furthered by the following Cataplasm:

Take *Marsh-mallow Roots poudered, Chamomel flowers, Melilot, Meal of Lin-seed, Fenugreek, of each one ounce: fat Figs, eight: boyl all to the consistence of a Pultiss. Then add the yolks of four Eggs: Saffron half a scruple: Oyl of Lillies and fresh Butter, of each an ounce. Make of all a Cataplasm.*

When Matter or Quittor is made, which may be known by the abatement of heat and pain, and by a certain inundation perceivable by the touch, the Matter quaking like a quagmire, endeavor must be used to break the Impostthume by moving of the Body, by coughing, by neezing, by fastening Cupping-glasses, by clensing and attenuating Injections, or by Pessaries that wil draw and break. As for Example.

Take *Goose-Grease half an ounce: Turpentine two drams: Rue seeds poudered, Nitre, Orice Roots, of each half a dram. Mix all, and with Wool make a Pessary.*

When the Impostthume is broke, we must endeavor to purge out the Quittor or Matter, and to clense and consolidate or close up the Ulcer, as shall be shewed in the Cure of an Ulcer of the Womb, in the Chapter immediately following.

Chap. 8. *Of an Ulcer of the Womb.*

After a suppurated Inflamation of the Womb, follows an Ulcer, which likewise depends upon other Causes, namely, so many as may cause an Erosion, fretting, or gnawing the substance of the Womb.

The Causes therefore hereof are, An Impostthume breaking, Sharp Humors flowing into the Womb, Sharp and Corrosive Medicines conveyed into the Womb, or taken at the Mouth, as was said before touching Cantharides or Spanish Flyes.

The Antecedent Causes are all such things, which we have formerly shewed have power to cause an Inflamation, as difficult Child-birth, violent and unbridled Carnal Conjunction, a long flux of Sharp Humors from the Womb, wounds, fals, and bruises, and especially a venemous Gonorrhea, and the Lechers Pocks, the infection whereof is soon communicated to the Womb, and its Neck.

The Differences of this Disease, are taken from the place, the magnitude, the figure and complication with other Infirmities.

In respect of the place, that is to say, the several parts of the Womb; the Ulcer is somtimes possessed of the Neck of the Womb, and its inner Orifice; somtimes it is in the bottom, though but seldom. Somtimes, and that most frequently, it seizes the inner surface of the Womb; somtimes, but seldom, it assaults the outer surface; whence it comes to pass, that somtimes the Quittor of these Ulcers comes out by the Bladder or Guts, or if it settle in the Cavity of the Abdomen, Impostthumes arise about the Patients Groyns, of which *Hippocrates* speaks in his 47. Aphor. Sect. 5.

In respect of Quantity, some are great, others smal Ulcers, according as they take up more or less space in the Womb; which if they be little and superficial, they differ little from the Scab and Itch; but if they be great, grievous, and as it were devouring, they are called by *Hippocrates*, *Nomæ*, that is, eating Ulcers.

In regard of their Figure, Ulcers are called Round, Long, Hollow, or Fistulous, that is, like a Pipe.

In regard of Complication with other Infirmities, they are called Phlegmonous, Cancerous, Scirrhous, Painful, VVater-bloodish, Poysonous, and Infectious.

The Signs of an Ulcer bred in the VVomb, are, Pain and biting in the womb or its neck, voiding of

of ſnotty Matter or Quittor out of the Womb, which Diagnoſis wil be more illuſtrated, if the Cauſes producing the Ulcer, ſuch as we have muſtered up, have preceded.

If the Ulcer poſſeſs the neck of the womb, it is diſcerned by the ſight, by help of the Womb perſpective Inſtrument; alſo by the Midwifes hand, or in the genial Embracement, in which the Patient feels a troubleſom pain, But if the Ulcer be in the bottom of the Womb, the pain is felt about the Share, and the Excrements flow more abundantly.

If the Ulcer pierce to the outward ſurface, the Patients Urines or Stools appear Matteriſh, or a Fluctuation is perceived in the Paunch, or a Swelling towards the Groyns, where it threatens to Impoſthumate.

If the Ulcer be ſingle and benign, the Quittor is little, white, and not ſtinking. But if it be malignant and eating, the Quittor will be greeniſh, Lead colored, and party-colored, coming away with great pain and ſtink.

If it ſhall ariſe of the Lechers Pox, Gonorrhœa will uſher it in, or attend upon it, and other tokens of the Whore-maſters Pox will appear.

For the Prognoſticks of this Infirmity, *Hippocrates* in the firſt Book of Womens Sickneſſes ſaies, That no Ulcer in the Womb ought to be ſlighted, becauſe it is in a part of exquiſite feeling, which hath a fellow feeling with the principal parts of the Body, and is very much diſpoſed to receive a flood of Excrements from them.

If the Ulcers of the VVomb prove Cancerous, Phagedenick, or VVolf-iſh [ſuch as we ſimple people cal the VVoolf, and tel ſtrange tales about, how it eats fleſh, &c.] hollow, or fiſtulous, they are for the moſt part incurable, and do vex the poor Patients miſerably, all their life long.

Ulcers in the Neck of the VVomb are more eaſily cured, becauſe Medicaments may be applied to them immediately.

In women that are recovering of this Diſeaſe, it is a token of perfect health, if they begin to conceive, and conveniently to receive the Mans Sperm, or if they have their monthly Courſes orderly and without pain.

The Cure of a womb Ulcer, muſt tend to hinder the flowing in of ſuch Humors as either beget or cheriſh the Ulcer, and to cleanſe the Ulcer, and cauſe it to come to a coalition. To which purpoſe the following Remedies may be uſed.

And firſt of all, If the Patient be over ful of blood, or the Ulcer have an Inflamation joyned therewith, a Vein in the Arm muſt be opened, and repeated ſo often as there ſeems danger of a new Fluxion; which is eſpecially to be done when the Patient hath her Courſes, that they may flow the leſs, becauſe they are wont to ſupply Matter to the Ulcer, and to cauſe other Humors to flow unto the womb.

Alſo Purgation is very neceſſary, that the Body may be freed from evil Humors; and it ought to be procured by the gentler ſort of Purgatives, as Senna, Rhubarb, Tamarinds, Myrobalans, Catholicum, and ſuch like; and Purgation is often to be repeated, that evil Humors may be diverted from the womb, and it is in this caſe of ſuch moment, that *Foreſtus* witneſſeth in the 48. Obſervation of his 28. Book, That *John Tiengius*, a Phyſitian of *Amſterdam*, cured a Gentlewoman of *Amſterdam* of an Ulcer in her womb, to whom he gave every fourth day, five ounces of the Decoction of Senna, Epithimum, red Roſes, and Indian Myrobalans ſweetened with Sugar, uſing to caſt cleanſing Decoctions, as Injections into her womb.

For to be ever in a readineſs, This following Magiſterial Syrup may be compounded.

Take *of the greater Comfry Roots, and new Polypody of the Oak, of each one ounce: Citron peels dried, ſix drams: Leaves of Plantane*, Vinca pervinca, *Ladies mantle, Sorrel, Maiden-hair, of each a handful: Liquoris ſcraped and ſplit, and Raiſons ſtoned, of each one ounce: Senna cleanſed ſix ounces: Carthamus ſeeds bruiſed two ounces: Agarick newly made into Cakes and bound in a Cloth, ten drams: Muſk-melone ſeeds, and Annis ſeeds, of each three drams: the Cordial Flowers, Roſemary Flowers, and Epithimum, of each one pugil. Make of all a Decoction in Barley Water, in part whereof infuſe of choyce Rhubarb half an ounce: Cinnamon one dram. In a pint and half of the ſtrained Liquor, diſſolve three ounces of the Syrup of Damask Roſes, and as much Sugar as ſhall be requiſite to make it into a Syrup perfectly boyled. Of this let her take two or three ounces, twice or thrice in a month with ſome Decoction of Agrimony and Plantane, or the Infuſion of Rhubarb in Endive Water.*

If the Patient be eaſie to vomit, a purge upwards by Vomit, is to be preferred before the other, becauſe it draws back the Humors from the womb.

In the ſpaces between purging, a Vulnerary Decoction is long to be uſed, which may be made after this manner:

Take *Leaves of Agrimony, Burnet, Knotgraſs, Plantane, of each half a handful: China Roots three drams: Coriander ſeeds one dram: Currence half a dram: red Sanders one ſcruple. Boyl all in the Broth of a Chicken. Let the Patient take of the ſtrained Liquor morning and evening.* Or,

Take

Take *Leaves of Mugwort, Plantane, Yarrow, of each one handful: Rhaponticum half an ounce: Agnus Castus seed one dram. Boyl all in a sufficient quantity of white Wine. Sweeten the strained Liquor with Sugar; and give her two or three ounces in a morning,*

If a Feaver urge, and great quantity of bloodyish Quittor be voided, Whey and Milk will be very good; let her take eight ounces or more in a morning, adding a little Honey of Roses, or Sugar.

If her flesh begin to fall away, with tokens of an Hectick Feaver, Milk, especially Asses Milk, must be given with Sugar of Roses for a whol month.

Sweat-provoking Medicines may likewise do good where there is no Inflamation, nor hot distemper, to dry the Ulcer, and to revel the ferous humors towards the habit of the Body.

Turpentine washed in some convenient water for the womb, as of Mugwort or Feaverfew; or in some water respecting the Ulcer, as of Plantane, and red Roses, taken now and then with Sugar of Roses, doth cleanse and consolidate or fil up the Ulcer.

Pils of Bdellium given to a dram at a time, or every day, or once in two daies one scruple, do very much good, and stop the blood in case it flow.

Or new Pills may be made on purpose, to be used after the same manner, thus:

Take *Bdellium three drams: Mirrh, Frankinsence, of each one dram: Sarcocolla, Storax, Amber, Cheb-Myrobalans, of each half a dram: red Coral two scruples. With Syrup of Poppies make a Maß fit for Pills, whereunto, in case of extream pain, a little Opium may be added.*

Trochisci Alkekengi [Cakes compounded with Winter-Cherries, of which consult my *London Dispensatory*] with Opium, are likewise (being poudered) given to drink down, where the Patient is troubled with great pain.

Also to mitigate pain, the same Remedies may be used, which we prescribed for that intent, in our discourse of the Inflamation of the womb.

This following Pouder is very effectual to dry up the Ulcer:

Take *Acacia, Juyce of Hypocistis, of each one dram: Dragons blood, fine Starch, Plantane Roots, Birthwort, or round Aristolochia Roots, of each half a dram: Bole Armoniack one dram: Mastich, Sarcocolla, of each half a dram. Make all into a most fine Pouder, whose Dose let be one dram, with Plantane water, red Rose water, or water wherein Steel hath been often quenched.*

Zacutus Lusitanus in the 87. Observation, and the 88. of his second Book, propounds an Electuary and a Water, wherewith he witnesseth that he had cured Ulcers of the womb judged incurable. Any one may find the Description of them in the places above cited.

To cleanse, dry, and fill up the Ulcer, divers sorts of Injections are usually made; which are nevertheless, not to be used, until the Inflamation be first taken away, which is oftentimes attendant upon these kind of Ulcers; and until the pain be asswaged, which is not only very troublesom, but also by vexing the part, it is wont to encrease the flux of Humors.

In regard therefore of that same Inflamation and sharpness of Humors, let Emulsions of the cooling Seeds, VVhey of Goats Milk, or Milk it self, either alone, or mingled with the Juyce of Plantane and Shepheards-purse; or if need be, a Decoction of Poppy heads, and the tops of Mallows be first of al injected. Some Practitioners are of Opinion, that luke-warm water alone, doth very much good in these cases, if it be often injected. And there is reason for it, seeing by that means the heat and Inflamation of the womb is tempered, the pain is asswaged, and the filth adhering to the Ulcer is washed off. *Valescus de Taranta*, doth approve of cold water likewise, in these words: *I have known* (saies he) *some women, who perceiving they had Ulcers in their wombs, did wash them with cold Water, and then wipe them clean, and dry them with linnen cloaths, which they did often put in at the Watergate. And by these means often renewed, they came many times to be perfectly cured.*

The hot distemper taken away, and the pain asswaged, or for the most part diminished, we must proceed to Cleansers, first using the more light and easie Cleansers, and after the more strong.

The gentle Cleansers are, VVhey taken with Sugar, Barley water sweetened with Sugar, or Honey of Roses, to make it more cleansing; or Hydromel simple (see my *Dispensatory*, a mixture of water and honey boyled a while together.)

For a more strong Cleanser, use the Decoction of Barley, Lintels, shaled Beans, and the Leaves of Smallage, Pellitory of the wal, Plantane, boyled together, a little Honey of Roses being added to the straining.

VVhen the Ulcer is very foul, the wound-decoction commonly called *Aqua Catapultarum*, is the best thing that can be used, whose Composition is thus:

Take *the Roots of Gentian, Rhapontick: Zedoary, and round Aristolochia or Birthwort, of each one ounce: white Wine six pints: boyl all till a third part of the Liquor be consumed. In the straining*

straining dissolve half a pound of white Sugar. Let it be kept for use as occasion requires.

Or the following Decoction may be provided:

Take *of whol Barley, course Bran, and red Roses, of each one pugil: Leaves of Agrimony, Wormwood, Woodbind, and Smallage, of each one handful: Beans and Lentils, of each three drams: scraped Liquoris, Orice Roots of Florence, and Zedoary, of each two ounces. Boyl all in water, adding towards the end, a little white Wine.*

If the Ulcers be very stinking and ful of rotten Quittor, there may be added to the Decoction, a little *Unguentum Ægyptiacum, Collyrium Lanfranci*, or the Pouder of dulcified Mercury.

When the Ulcer shal be wel scoured and cleansed, we must use drying and solidating things, made after this manner.

Take *the greater Comfry Roots, Bistort Roots, of each one ounce: Leaves of Plantane, Horstail, Shepheards-purse, Ladies Mantle, Mous-ear, Yarrow, of each one handful: red Rose Leaves half a handful: Boyl all in water, and make thereof an Injection.*

With the which or like Injection, this following flesh-creating Pouder may be mingled.

Take *the Roots of Orice, Birthwort, great Comfry, of each half an ounce: Mirrh one ounce: Aloes three drams. Make all into Pouder, of which half an ounce may be mingled with every Injection.*

Turpentine wash'd in Plantane Water to the quantity of two drams, dissolved with Honey and the Yolk of an Egg, wil do very much good, mingled with the Injection; and the more if the flesh-creating Pouder be also added.

The Oyntment *Pompholygos, de Cerusa, de Plumbo*, of each six drams for a Dose, mixed together, are likewise used in Injections. But the Egg-yolk Oyl, rubbed about with a Pestle in a Leaden Morter, is better than al the rest.

Fumes received through a close stool, do pierce to the deep Ulcers which are about the bottom of the Womb, and dry them: Which may be thus prepared:

Take *Frankinsence, Mirrh, Mastich, Storax, Juniper, Gum, Labdanum, of each one ounce: Turpentine as much as shall be requisite. Make all into little Cakes for to be burnt under a close stool.*

In a most stubborn Ulcer, Cinnabarus or Minium being added to the Fume-Cakes, bears away the Bell from al other Medicaments.

Also Baths that are drying, Sulphurous, and Allumish, are used in long Ulcers: and Physitians are wont to send their desperate Patients to those Baths, as the last Remedy.

It wil not likewise be unprofitable to apply convenient Plaisters to the Region of the Womb, seeing their vertue can pass to the innermost parts of the womb, by the invisible pores of the Body.

If an Ulcer be in the neck of the womb, it must be smeared with scouring and drying Liniments, or Oyntments. The Scourers may be made after this manner:

Take *of the Juyce of Smallage two ounces: Honey of Roses one ounce and an half: Turpentine half an ounce: Barley Meal as much as shall seem convenient. Boyl them all gently, and make them into the form of a Liniment or Oyntment.* Or,

Take *the round Birthwort half an ounce: Horehound, Centaury the smaller, Agrimony, of each half a handful. Boyl them in a fit quantity of Hydromel. To the strained Liquor add the pouder Florentine Orice Root two drams: Barley meal, and clarified Honey, of each as much as shall suffice. Make all into a Liniment or Oyntment.*

And sometimes the Oyntment *Pompholygos* is used, adding thereto, Frankinsence, Mastich, Mirrh, Aloes, as the Nature of the Ulcer shal require.

When the Ulcer is sufficiently cleansed, a drying and scar-contracting Oyntment is to be laid on, which may be thus made:

Take *Tutty Pouder washed half an ounce: Litharge of Gold and Silver, Cerus, Sarcocolla, of each two drams: Oyl and Wax as much as will suffice. Make all into an Oyntment.*

It falls out sometimes, That Ulcers of the Womb do penetrate unto the streight Gut, and sometimes unto the Bladder; which is known by the Quittor issuing through the Water-Gate, or the Dung-Gate.

If the Quittor or Matter come out by stool, Lenitive, Scouring, and Drying Clysters are to be used; such as we propounded in our Cure of the Bloody-flux.

But if the Quittor come away by Urine, gentle Piss-drivers and cooling wil be requisite, which may purge out the filth sent into the Bladder, and further the Cure of the Ulcer; such as are, Emulsions of the greater cold Seeds, after which, Turpentine must be used, and other Medicines prescribed for an Ulcer of the Bladder.

If the Ulcer degenerate into a Fistula, which chiefly fals out when it opens outwardly towards the Hip, though it may likewise happen in the Womb it self, and its Neck; it is to be considered, which

is better for the Patient, to leave that Passage free and open, to which Nature hath been accustomed, and by which she endeavors to disburden her self of manifold Excrements, or to stop the same. If it be judged best to keep it open, a palliative Cure must at least be made, by Purges frequently repeated, and Sweat-provokers are to be administred twice in a yeer; also scouring Injections, and strengthening must be used, and *Emplastrum Diapalma Divinum*, and such like Plasters, are to be laid upon it. But if there be hopes to make a perfect Cure, and heal up the Fistula, such Medicines must be applied, as are wont to be used for the cure of other Fistulaes.

If Ulcers happen in the Water-Gate, or in the Cavity of the Womb, by reason of the Lechers Pox, they cannot be Cured without the General Cure of the said Pox. In the performance of which Cure, of many waies, there is none better than Fumigations of Cinnabaris or Minium; for they do not only help to rid the whol Body of that Infection, but being received into the Cavity of the Womb, they do in a peculiar manner hasten the Cure of these kind of Ulcers. Likewise in the Cure of this Disease, by Quick-silver'd Oyntments, the said Oyntments must be conveighed into the inner parts of the Womb.

In whatsoever Ulcers of the Womb, if the Neck thereof be molested with an itch, as it often falls out, by reason of a defluxe of a sharp and salt Humor into that part; to pacifie the said Itch, a Pessary wil be good, dipped in *Unguentum Emulatum cum Mercurio*; or in *Ægyptiacum* dissolved in Sea-water, or in Allum water; or in new Butter wherein Quick-silver hath been killed, with some Brimstone mingled.

Chap. 9. *Of a* Scirrhus, *or a Painless hard Swelling of the Womb.*

The Nature, Sorts, and Causes of a Scirrhus, or hard Swelling in the Womb, are the same which have been set down in our Chapter of the like Swelling in the Liver, and need not in this place be vainly repeated, but must be sought for in the said Chapter.

Howbeit among the Antecedent Causes, this is proper to an Hard-Swelling of the Womb, and is very frequent, namely, for women when the flux of their Courses or Child-bed purgations are upon them, undiscreetly to expose themselves to the cold Air, or to drink cold water; whereby the flux is stayed, and the retained blood grows thick, and is condensed, and at length produceth a Scirrhus or stony hard Swelling in the Womb.

The Signs of such a Swelling bred in the Womb, are, An hardness felt in the Region of the Womb, such as resists the touch, which hardness represents the compass of the Womb; an heavinesse in the same place, and a sence of some weight bearing down, especially when the sick woman stands, as though the womb would fal down into the water-Gate; but when they sit or lie, it bears upon the streight Gut with its weight. There is no Feaver nor pain; wherein it differs from an Inflamation, or at most there is but very little pain in an imperfect Scirrhus, but in the Womb there is none. If it follow an Inflamation the Feaver and pain ceases, the hardness and resistence abiding. If it be in the Body of the Womb, it is easily discerned by handling the parts about the Share; but if it be in the Neck of the womb, it may be perceived by ones finger. It is distinguished from a Mole by the preceding Causes; and because in a Mole, if the Courses flow, they flow disorderly, but in this Hard Swelling they keep their order; and in a Mole, the womans Dugs strout with Milk, but in the Hard Swelling they are extenuated.

As for the Prognostick Signs, Every Scirrhus or hard stony Swelling, is very exceeding hard to cure; for an extream Hardness once contracted can hardly be softened; also Natural heat is so very weak in that part where there is such a Swelling, that it can very hardly discuss an hard and almost stony substance.

A great and unvanquishable Scirrhus, or stony Swelling, doth at length bring the Dropsie to keep him company.

A Scirrhus, or stony hard Swelling of the womb, if it be tampered withal with over hot and moist Medicaments, it turns into a Cancer.

The Cure of this Disease aims at two things, the Antecedent Cause, and the conjoyned or concomitant Cause.

In respect of the Antecedent Cause, a Vein must be opened, first in the Arms, if the Disease be of no very long continuance; afterward in the lower parts, especially when the Patients Courses are stopt.

The opening of the Hemorrhoid Veins, is also very profitable in this case: For they do both evacuate dreggy blood, and they turn the Humor from the womb, because of the communion which the Veins have with the womb.

Purging is likewise necessary, by fits repeated, procured by such Medicines as purge Melancholly, using

uſing firſt the gentler, and then the ſtronger ſort by degrees.

And before the Purges, ſuch things muſt be given as prepare the Melancholly Humor, and open the narrow paſſages of the Excrements, in the form of Apozems, Juleps, or Broths, according to the diſpoſition of the ſick party.

And beſides the ordinary Openers, Medicines with Steel, muſt be likewiſe uſed, whereby thoſe ſtrongeſt Obſtructions cauſed by thick and rebellious Humors in the Womb and other parts, may be diſſolved.

And that ſuperfluous humors may be derived from the womb, Iſſues may profitably be made in the Thighs, which are to be kept open until the Patients monthly Courſes (which are commonly ſtopt in this Diſeaſe) ſhal return unto their ordinary form, in reſpect of time, quantity, and quality.

In reſpect of the conjoyned Cauſe, Emollient and Reſolving Medicaments are to be applied outwardly, compounded after this manner:

Take *the Roots of Marſh-mallows and Lillies, of each two ounces: the leaves of Mallows, Violets, Marſh-mallows, Bears-foot, of each one handful: Leaves of Mugwort, Nep, of each half a handful: Seeds of Line and Fenugreek, of each one ounce: Flowers of Chamomel and Melilot, of each a pugil. Make a Decoction of all, wherewith the Region of the Share, and the Groins muſt be fomented, a warm ſponge being firſt dipped therein, and then ſqueezed out, and ſo laid on, and held to the parts aforeſaid.*

For the greater mollifying, the Decoction may be made in Water and ſweet Oyl, or in the Broth made of a Wethers Guts.

There may alſo be added to the Decoction, that it may become more powerful, the Roots of Briony and wild Cucumers; for we muſt begin with the milder, and proceed to the ſtronger by Degrees.

Of the ſame Decoction (augmenting the quantity of the Simples) may a Bath be made for the Patient to ſit in, which is very effectual in this Caſe, and more powerful than a Fomentation.

Alſo frequent Clyſters and Injections into the Womb, are to be made of the ſame Decoction, whereunto the Oyls of Lillies, Chamomel, or ſweet Almonds may be added.

Take *of the Oyl of Lillies, and ſweet Almonds, of each three ounces: Mucilage of Fenugreek ſeed extracted with white Wine one ounce: Hens, Gooſes, and Ducks Fat, of each one ounce and an half: new Butter and Hogs Greaſe, of each two ounces: Wax and Turpentine as much as ſhal ſuffice. Make all into an Oyntment.*

This which follows, is approved in al hard Swellings, being deſcribed by *Rhaſis* in his Seventh Book, dedicated to King *Almanſor*.

Take *Bdellium, Ammoniacum, Galbanum, of each equal quantities: Beat them in a Morter with Oyl of Ben, and of Lillies; then add the Mucilages of Fenugreek Seed, Lin-ſeed, and Figs, in equal quantities. Make all into an Oyntment.*

Of the ſame Materials, adding Wax, may a moſt effectual Plaiſter be made, to be applied to the Region of the Womb, both before and behind. Or a Plaiſter may be applied made of *Emplaſtrum Diachylum ireatum.*

A Cataplaſm or Pultiſs may be made of what remains after the Decoction aforeſaid, being beaten and forced through an Hair Searce, adding of the meal of Lin-ſeed and Fenugreek ſeed, of each an ounce: ſix Figs: two drams of Orice Root: half a dram of Saffron: Hens Greaſe, and Oyl of ſweet Almonds, of each a ſufficient quantity. Make of al a Pultiſs.

The Bitumenous clay taken out of Brimſtone Baths, and ſuch as are Bitumenous, is profitably applied as a Cataplaſm.

The Fume of the Stone called *Pyrites* [that is, the Marchaſite, or Fire-ſtone] being made red hot, and quenched in Vinegar, is by *Galen* wonderfully extolled for diſſolving all ſtony hard Swellings, ſo that it works like a Charm. In the ſaid Vinegar, Savory and Pellitory may be boyled: but care muſt be had, leſt your *Lapis Pyrites* prove to be the Stone called *Plumbarius*, or the Lead-ſtone, which would do very much hurt.

Finally, All the Medicines, as wel internal as external, which were before deſcribed in our Cure of the hard Swellings of the Liver and Spleen, may alſo be uſeful in this caſe.

Yet muſt theſe Medicaments in the whol courſe of the Cure be moderated and accommodated with the greateſt judgment and diſcretion imaginable, leſt the hard Swelling become harder; or (which is much worſe) degenerate into a Cancer, Which al Practitioners fear, when Medicaments are unwarily adminiſtred for a long time together: ſo that it is better ſometimes to pauſe, and give or apply nothing, that we may mark what good is done by the former applications. For it is vain ſtriving, when the Swelling (having loſt al ſence of feeling) hath put on the Nature of a ſtone.

Chap. 10. *Of a Cancer of the Womb.*

A Cancer is a hard Swelling of the Body or Neck of the Womb, which resists the touch, and causeth a most vehement pain, as it were pricking and cutting the part affected.

It is caused by black Choller gathered in that part, or by reason of a Scirrhus, or senceless hard tumor ill cured; which easily turns into a Cancer, especially in this part of the Body, by reason of the copious afflux of blood, which being retained in those Veins which are nigh unto the Scirrhus, and not sufficiently evacuated by the monthly purgations, it becomes adust or burned, and acquires a malignant disposition.

It is ordinarily reckoned to be of two sorts, Ulcerate, and not Ulcerate.

So long as the Morbifick matter is of lesser Acrimony and Malignity, it causeth a Cancer not ulcerated; but when it grows more sharp by putrefaction or adustion, it doth exulcerate the tumor, and produce an ulcerated Cancer.

The Disease may easily be known by the definition propounded; for if an hard Tumor resisting the touch, be felt in the Body of the Womb, or its Neck, causing a pricking and cutting pain, we may pronounce boldly that it is a Cancer, Yet it is more evidently distinguished by the eye-sight, when it may be seen as in the Neck of the Womb it may be, with help of a Womb-perspective Instrument; for we shal see an uneven and bunching swelling, Lead-colored or black, compassed about with certain branches of Veins, as it were with roots; but if it be ulcerated, it sends forth a certain blood-watry quittor or matter, which is yellow or black, and stinking, and sometimes blood, by corrosion of the Veins which pass through that part, sometimes in such quantity that the Patient incurs danger of death. Hereunto is added a smal Feaver, unquietness, Stomach-sickness, an heat in, and about the Water-Gate, &c.

By way of Prognostication, we can only say thus much, That a Cancer is incurable, be it ulcerated or not ulcerated. Which as it is true of al Cancers, not excepting those in the outer parts of the Body, much more is it of a Cancer in the Womb, by reason of that perpetual Common-shore of Excrements which flows into the part.

Seeing then a perfect Cure cannot be hoped for, we must content our selves with such a Cure as is called *Palliative*. The scope whereof is, to hinder a not ulcerated Cancer from ulcerating, and an exulcerated Cancer from becoming more exulcerate: and in both to allay and temper the extremity of the pain. Which must be done, first by universal Purgations of the whol Body, and by other Medicines which may qualifie and evacuate the black Chollerick, and Melancholick blood, and hinder the further generation thereof. In the number of which are, bleeding in the Arm, Ancle, and Hemorrhoid Veins; Potions, Apozems, Juleps, Broths, Milk, Whey, cold Mineral Waters, and such like Remedies as these usually prescribed by Practitioners for the Cure of al Cancers in what part of the Body soever. And especially Purgations must be frequently reiterated, that the antecedent matter of a Cancer may be abated.

And then outward Remedies are to be used, such as are moderately cool and astringent, without any corrosive or biting quality; they are commonly applied in form of Liniments or Oyntments. The best are made after this manner:

Take *Oyl of Myrtles and Roses, of each two ounces: Juyce of Nightshade and Housleek, of each one ounce. Stir all together in a Leaden Morter, with a Leaden Pestle, until they grow black: then add Litharge of Silver, and Ceruss, both washed in Scabious Water, of each two drams: Camphire ten grains. Make all into an Oyntment, with which let the part affected, be smeared three or four times a day.* Or,

Take *Oyl of Egg-yolks, and of Roses, of each one ounce and an half: Sugar of Lead one dram. Stir them together in a Leaden morter till their color change.*

This following puts down al the rest, wherewith Swellings of the Dugs which have been accounted Cancerous, have been perfectly cured.

Take *Egg-yolks Oyl two ounces: Juyce of Nightshade and Veronica or Housleek, of each half an ounce: Quick-silver not killed two drams. Stir them lustily together in a leaden morter, with a leaden pestle, till they become thick as an Oyntment.*

The foresaid Oyntments are to be conveyed into the womb upon long tents, or upon wax Candles, wound in Linnen. But Injections may much more easily be conveyed into the Womb. They are compounded on this manner:

Take *Barley Water half a pint: Nightshade and Plantave Water, of each two ounces: Water of Housleek one ounce: white Troches of* Rhasis *two drams: Sugar of Lead one dram. Make of all an Injection.*

If pain be very vehement, add to four ounces of the Injection, one ounce of Syrup of Poppies.

Also

Also let the part affected be fomented with the waters of Plantane and Nightshade, or their Decoctions; whereunto may be added the Leaves of Water-lilly, white Poppy, red Roses, and Camphire. Which Decoction may also frequently be injected into the womb, and it wil become much more effectual, if it shal be wel wrought about in a Leaden morter, or a dram of the Sugar of Lead be added to it.

Among Specifick Remedies, Frogs are commended, being washed and boyled, and laid on as a Pultis, or their Broth being used as an Injection. Also the Decoction, or juyce of River Crabs, injected into the womb. As also Herb Robert used inwardly or outwardly.

If the Cancer be ulcerated, the Dose of Minerals must be augmented in the foresaid Liniments, and to them the ashes of River Crabs may profitably be added. And with the Injections, the white Troches of *Rhasis* may be mingled, and Barley Water with the Materials of the foresaid Injection.

If pain be very urgent, Fomentations of Mallows, Marsh-mallows, Water-Lillies, Poppy, Henbane, Green Coriander, Dil, Fleawort seeds, Milk, Saffron, and the like, are to be used at convenient seasons; or Pultises made of them are to be applied. And of their Decoctions, Injections, and Baths to sit in, may be provided.

Yet wil not al these Medicaments somtimes serve turn to pacifie a most cruel pain, which somtimes gives the Patient neither rest nor sleep. Which compels us many times to make use of Narcotick or stupefactive Medicines, which in this Disease, by reason of the exceeding Heat of the Humors, do less hurt. And I have seen a woman, having a Cancer in her Dug, that took every night for four months together, two or three grains of Laudanum, and had no hurt, but very great comfort thereby.

If from an ulcerated Cancer much blood do proceed, as it often fals out, let Juyce of Plantane with a little Frankincence be injected into the womb.

Chap. II. *Of Mortification, or Gangrenation, and Sphacelation, or Blasting of the Womb.*

A Gangrene is the corruption or mortification of a part beginning; but when it is wholly corrupted, and dead, it is said to be Sphacelated, or blasted.

In the Genital parts of Women, this Disease is easily bred, because those parts are moister and softer than ordinary, and do easily receive the Excrements of the whol Body.

It often follows an Inflamation, Imposthume, Ulcer, or Cancer il cured, when the vital heat of the part, is choaked or destroyed. It is choaked in great Inflamations, when more blood flows in than the Natural heat of the part can digest, or turn into Matter. It is destroyed, either by a cold distemper extinguishing it, or by an hot one, dissipating and resolving the same.

A beginning Gangrene is known by an unusual heat felt in the part, a horror and trembling seizes upon the Patient, with a languishing and quick-beating pulse, and with fainting away, or swooning. And seeing this Disease doth for the most part happen to the Neck of the Womb, so that the part affected may be perceived by the Eye; it is discovered to be soft, Lead-colored, black and carrion like, and may be prickt or cut, and the Patient never feel it; and it sends forth besides, a stinking and carrion-like smel.

As for the Prognostick or Predictions belonging to this Disease. It is a most grievous, most dangerous Disease, and for the most part deadly: yet it hath been observed by very many Authors, That the Womb being putrefied and Gangrenated, hath either fallen away of it self, or been cut away, the womens lives being saved: which Observations of Authors, *Schenkius* hath collected to a great number, in the fourth Book of his Observations.

The Cure is performed with the same Remedies which are wont to be applied to other parts being Gangrenated, if it be in the Neck of the Womb, or tend toward the outward parts; as namely, with Scarrifications, and washings or bathings with a Decoction of Wormwood, Mirrh, and such like, with the Oyntment called *Ægyptiacum*, the Cataplasm called *De Tribus farinis*, which is thus made:

Take *Barley meal, Bean meal, and Orobus meal, of each two ounces: Oxymel one pound: Boyl them to the thickness of a Pultis or Cataplasm. Whereunto if there be added, meal of Lupines, Mirrh, Aloes, and Wormwood, it will be more effectual.*

If any part of the Womb be wholly corrupt and dead, it must be cut off; or if the Womb fall down, it must be separated, by binding the Ligature every day faster and closer. Of which kind of Operations, there be many Examples collected by *Schenkius* in the fourth Book of his Observations.

Wierus also relates in his Observations, That he cured a woman of twenty five yeers of age, who

in the hotteſt of the Dog-daies, had a certain little bunch growing in her Water-Gate. Whereunto an unskilful Chyrurgion applying Pultiſſes that were not proper, within a few daies, all that part began to putrefie, grow black and dead, and the Diſeaſe paſt on with incredible ſwiftneſs towards the Dung-Gate. And *Wierus* undertook the Cure after this Method: Firſt, he ſquirted good ſtore of the Juyce of Nightſhade and Plantane with a Syringe into both the Paſſages three or four times a day; between which times, he applyed a bolſter wet with the foreſaid Juyces, Vinegar being mixed therewith; which growing dry was wet again with the ſame Liquor. And in this courſe of reiterated Application he continued til the fervent heat was quenched, and the putrefaction began to ceaſe. She took in the mean while, thrice every day a Potion, of the Decoction of Sorrel, Scabious, Burnet, Damask Prunes, the tops of Borrage and Bugloſs, Marigold flowers, with Water, Sugar, and Vinegar, made in the manner of a long, acid, or ſharp Syrup. Her Diet was ſpare, but cooling and tart, to prevent putrefaction. On the third day, the fury of the burning heat, and of the putrefaction, was abated. Whereupon he commanded the black and dead fleſh to be drawn or plucked out with a little Forceps [Chyrurgions Inſtrument, like Tongs or Pincers] and ſeparated round about from the live fleſh, without any pain, and ſo to be cut off. Then he conſumed the reliques even to the live fleſh with the Oyntment called *Ægyptiacum*. And proceeded to cicatrize, or bring it to a Scar, after the ſame manner which is uſed in other Ulcers.

In the whol courſe of the Cure, care muſt be had to ſtrengthen the Heart, both by things given in, and applied outwardly: Likewiſe Emollient, Clenſing, and Refrigerating Clyſters, are frequently to be given, which do much help the part affected, by reaſon of Neighbor-hood.

Chap. 12. *Of the Wombs Wind-and-Water Swelling, or Dropſie.*

THe Inflation or blowing up of the Womb with Wind, and its Dropſie, are by Writers confounded or jumbled together; ſo that they call the Inflation, a Dropſie coming of wind; whereas the Dropſie properly ſo called is ingendered by a watery Humor, Yet are they diſtinguiſhed, and there is a certain puffing up of the Womb with wind, ſuddenly ruſhing in, and ſtretching the ſame, and cauſing vehement pain, as in the Chollick; which becauſe it continues not, but is ſoon diſcuſſed, it deſerves not the name of a Dropſie; and ſuch a puffing up is often ſeen in Hyſterical women which have the Womb-fits.

There is therefore to be reckoned a two-fold Dropſie of the Womb; one from Wind, which is like that ſort of Belly-dropſie which is termed *Tympanitis*, or the Drum-belly Dropſie: another ariſing from a wheyiſh Humor, anſwering to the Dropſie of the Belly, called *Aſcites*, that is, the Bottle-belly Dropſie: Some add a third ſort, anſwering to the third ſort of Belly-Dropſies, called from its cauſe, *Leucophlegmatia*, that is, white-flegm Dropſie, which is ſeldom ſeen in the courſe of Practice. Yet I have ſeen a Gentlewoman, which in one day voided ſuch plenty of thick flegm out of her womb, as might weigh probably ſix or ſeven pound weight: which flegm long retained, might doubtleſs have cauſed in her, a Dropſie of the womb.

Wind and water cauſing a Dropſie of the Womb, are contained either within the Cavity of the Womb, or in its Membranes, or in certain Bladders. Touching the Cavity of the VVomb, it is ſomwhat doubted how Wind and Humors can be contained therein, ſeeing there is ſo eaſie a Paſſage through the Neck and Mouth of the VVomb. We anſwer, The inner Orifice or Mouth of the VVomb, may be cloſed up divers waies; either by thick flegm ſticking faſt thereunto, and growing hard, or by a Scirrhus, or ſome other cauſe. *Mercatus* conceives, That a ſnotty kind of flegm is voided by the mouthes of thoſe Veins which are ordained for the monthly Purgations, and that of the ſaid ſnotty flegm a skin is framed, which covers all the inner ſurface of the VVomb, within which thin skin, the wheyiſh and windy Matter is contained. But *Fernelius* thinks, That water may be contained in the womb, without any thing amiſs in its mouth, but barely by its conſtriction or purſing of it ſelf together. All theſe ſorts are to be allowed of, and may be confirmed by divers Examples.

And firſt of all, Examples of VVinds contained in the VVomb-Cavity, are recited by *Sennertus*, in the Fourth Book of his Practice, Part 1. Sect. 2. Chap. 10. The firſt is taken out of *Valeſcus de Taranta*, touching a certain Jewiſh woman of *Liſbon*, who taking her ſelf to be with Child, when ſhe expected to be delivered, a great quantity of wind came away, and ſo her womb was brought down again. The Second is taken out of *Mathiolus de Gradi*, who relates the ſame thing to have befallen his own wife. And other Examples taken out of *Dodonæus*, *Thadæus Dunus*, and other VVriters, do teſtifie the like Caſes; and we ſee the ſame often in the courſe of our Practice. Whereunto may be added a Hiſtory, which we ſhall in the Cure relate out of *Sokenander*, of a woman who

by

by means of a Fumigation made of Nutmegs, let wind fly out of her Womb, which gave a report like a Piſtol.

And Examples of Water contained in the Womb are propounded by the ſaid *Sennertus*, out of *Rhaſis*, who ſaw a woman out of whoſe Womb there flowed twenty five *Cotila's* of water, which is a Meaſure not uſed with us, containing about half an Ale Pint. Alſo out of *Jacobus de Partibus*, and *Dodonæus*, who relate ſuch a like Story. And *Veſalius* Diſſected or Anatomized a woman, in the hollowneſs of whoſe womb, were found above ſixty *Auſburg* Meaſures of water, each Meaſure containing three pints, and the mouth of her womb was grown to a wonderful hardneſs.

And that water is ſometimes contained in the womb in bladders, many Authors do teſtifie, who have ſeen examples thereof in ſome women, who voided ſuch bladders full of water from their wombs; among the reſt *Aetius*, *Valeriola*, *Chriſtopherus a Vega*, *Mercatus*, *Platerus*, and *Fabricius Hildanus*.

Sometimes alſo women with Child have a Dropſie at the ſame time in their wombs, as *Fabricius Hildanus* relates of his own wife, whoſe Belly was ſwelled to a monſtrous greatneſs; and at the time of her delivery, ſhe voided firſt of all, eighteen pints of water, and half an hour after, nine pints more; and at laſt ſhe was delivered of a Boy, ſtrong and healthy. The like caſe we find in *Skenkius*, but with a contrary event, concerning a woman, who being delivered of a living Child, continued ſtil big-bellied, and her belly growing ſtil greater and greater, ſhe died of it, and her womb being opened, a great quantity of water was found therein.

Finally, *Fernelius* hath an Example, in the ſixth Book of Diſeaſes, Chap. 15. of water retained in the womb, only by reaſon of the cloſe ſhutting of the mouth of the womb, without any other fault therein. The ſtory is of a woman that had a Dropſie in her womb, who as often as ſhe had her monthly Purgations, voided al her watry Excrements out of her womb, filling ſix or eight Baſons with a very hot yellowiſh water, til the ſwelling of her belly was wholly abated. The next month the like redundancy of watry Excrements being collected, was in like manner evacuated.

The immediate Cauſe of the windy and watry Swelling of the womb, is the weakneſs of Natural heat, reſiding in the Liver or Spleen; and from thoſe parts, wind, flegm, or wheyiſh humors are tranſmitted into the womb; or the weakneſs is in the womb it ſelf, whereby the ſaid Excrements are therein collected and heaped together.

And the Cauſes which weaken Natural heat, either directly, or by accident, are very many, and the chief are, of thoſe things which are collected by Phyſitians, *Res non Naturales*, things not Natural. So, cold air, eſpecially after Child-birth, heedleſsly received into the womb, is a moſt effectual cauſe of this infirmity. Alſo cold Air unſeaſonably received when the Courſes flow, and going frequently into cold water, or padling in the ſame, eſpecially during the ſaid flux, is a cauſe thereof. So is much uſe of cold Meats, or windy, as fruits, Herbs, Beans, and Peaſe, and likewiſe of Vinegar: Cold water plentifully and unſeaſonably drunk down, long and deep ſleep, painful childing and abortion eſpecially if it often happen, immoderate flux of the Courſes, exhauſting the Natural heat, or their ſuppreſſion choaking the ſame. Add to theſe, the proper Diſeaſes of the womb, as ſwellings, ulcers, and ſuch like, which do reſolve the heat of the part; or elſe ſhut the mouth of the womb, and hinder the egreſs of Menſtrual blood, and excrementitious humors.

In the Diſcovery of this Diſeaſe, many things are to be conſidered:

Firſt, How this particular Dropſie of the womb, may be known and diſtinguiſhed from that of the whol Body?

Secondly, How the ſeveral ſorts of this Womb-Dropſie may be diſcerned, as whether it come from wind, from wheyiſh Humors, or from flegm?

Thirdly, Whether it proceed primarily from ſome infirmity of the womb, or by fault of ſome other parts of the Body?

Fourthly, Whether the Matter offending be contained in the Cavity of the womb, or between its Membranes, or in certain Bladders?

Fifthly, How to diſtinguiſh it from other Tumors of the womb?

Sixthly, How from being great with Child?

Seventhly, How it may be known from a Mole?

As for the Firſt Queſtion. It is diſtinguiſhed from an Univerſal Dropſie of the Belly, in that the Womb-Dropſie ſwels chiefly the lower part of the Belly; whereas the univerſal Dropſie diſtends equally the whol Belly in all the parts thereof. Again, In the Womb-Dropſie, paleneſs and falling away of the fleſh of the whol body, are not ſo ſoon diſcerned as in the univerſal Dropſie, in which alſo for the moſt part, there is evident thirſt and drineſs of the tongue, which are not found in the womb-Dropſie, in which al other Symptomes are likewiſe far more gentle, than is uſual in the univerſal Dropſie. In a word, In the Womb-dropſie, ſome wind breaks out of the womb by fits; or a little water comes away, which evidently declare, that wind or water are contained in the womb.

To the second Question we Answer thus. That the sorts of Womb-Dropsies may be known from one another after this manner. If it arise from wind, the lower part of the belly being struck gives a sound; the belly is afflicted with pricking paines, which reach sometimes as far as the Midrif, Stomach, Loyns, and other parts; sometimes wind breakes evidently out of the neck of the Womb. Likewise, women often feel their Wombs riseing like a Globe towards their stomachs. Sometimes their breath is short and the sick woman when she awakes out of sleep, oftentimes is much troubled to fetch her wind. After all meat and drink whatever, they are worse. They often belch, and their belchings give them ease. They are oft troubled with Womb fits or suffocation of the Mother. Sometimes they are pained below the navel, so as they cannot endure to be touched. Those Signes do also appear in the Inflation or Blowing up of the Womb with wind, which differs from this Disease (as was said before) only in this, that the Inflation is of less durance, but a Dropsie of wind continues a far longer time.

But if the Wombs Dropsie arise from a wheyish Humor, the Region thereof appeares soft and flaggy; whereas wind stretches it stif: there is a greater heavines in the part and a noyse as of water flowing this way and that way: some water now and then drops from the Privity. And finally if it arise from flegm, the softnes and flagginess of the part will be yet greater, and encrease daily more and more; and the bordering parts, as all under the Navel, the Privy parts, the space between the Privity & Fundament; with the Loynes, will be seen to swell with a Phlematick kind of Swelling.

To the Third Question we answer thus. If there be apparent tokens of the whol Bodies being misaffected, as by acute or long feavers, immoderate fluxes of blood, grievous distillations from the Head, Weaknesses of the stomach: swellings of the Spleen or Liver and other stubborn Diseases of those parts, with which the Wombes Dropsie began, encreasing as they encreased; it will be more than an even lay, that the Womb receives the matter of it's Dropsie from those parts by way of a flux of Rhewm. But if this Womb-swelling happen, when the whol Body is in good health, and do succeed particular diseases of the Womb, such as are hard Travels in Child-birth, Suppressions of the monthly courses, or over great flux thereof, Ulcers, Chollerick, or Melancholick, or hard Tumors, we may conjecture, that the Wombes-Dropsie doth depend upon those particular dispositions, and that the matter causing the said Tumor, is gathered together in the Womb it self, by means of its inability perfectly to digest and assimilate its nutriments.

To the fourth Question, we may Answer by saying, That the Matter which is contained in the cavity of the Womb, doth make a much larger Swelling, than when it is contained in bladders. Again, when it proceeds from a wheyish humor, a greater fluctuation of the water is perceived than when it is contained in bladders. And if so be, little bladders full of water be voided out of the Womb, it's a most certaine sign, that the Humour is contained in the little bladders.

To the first Question we must Answer; that the Wombs-Dropsie is Differenced from Tumors of blood or Choller, arising in the Womb: because in such Tumors or Swellings there is a feaver and a pain which is encreased by the least touch; also the Inflamation reaching even to the parts of Generation. And it is distinguished from Scirrhous and Cancerous Swellings, because in it there is no such great Hardnes, which can resist the impression of the Finger, but it rather gives way, and pitts.

To the Sixth Quære wee say: When a woman is big with Child, the Swelling is not so even and depressed, but it is sharp, buncheth out, and seems greater about the navel than elswhere. Secondly, In Greatnes with Child, after some months, women are for the most part somwhat better than they were, because the Child grown big consumes the greater part of those humors, which in the first months were burdensome: But the Dropsie, the further it proceeds the worse it growes. Thirdly, In greatnes with Child, the child is manifestly perceived. to stir, after the third or fourth month; which is not in the VVomb-Dropsie. Yet it falls out sometimes, that when the Dropsie is caused by wind, a certain Palpitation is preceived in the VVomb; but it is easily distinguished from the moving of a Child, which is more even; and is wont to be perceived in divers parts of the Belly. Fourthly, In Greatnes of Child, the womans Duggs swell; but in the Dropsie they are extenuated and become smaller.

To the seventh Quære we Answer, that in a Mole, women find a kind of Heavines in their VVombs, which they feel not in the VVomb-Dropsie; and when they lie on the one of their sides, they preceive the weight to roul like a stone to that side. Again, in the Mole, violent flux of Courses comes by fits, namely, every third or fourth month; which happens not in the VVomb-Dropsie. Lastly, in case of a Mole, the Duggs swell, and sometimes have milk; in the VVomb-Dropsie, quite Contrary.

As touching the Prognosticks of this Disease. A simple Inflation or puffing up of the womb with wind, because it lasts not, is without danger. Yet if not quickly cured it may grow to a true Dropsie.

A Womb-Dropsie caused by a good conditioned Humor void of putrefaction, is wont to proue a long

long Diſeaſe; yet may it in proceſs of time be cured, yea ſomtimes, the water flows of its own accord out of the womb, and the Patient recovers her health.

But if the Humor be malignant, ſharp, or putrid, which is known by the grievous Symptomes following; the Diſeaſe is dangerous, and for the moſt part deadly: For if the Diſeaſe depend upon ſome private Diſeaſe of the Womb, it betokens a perfect ruine of the natural Functions of that part; whence follows at laſt an univerſal Dropſie of the whol Body. But if the Womb ſuffer by conſent of other parts, viz. of the Liver, Spleen, or Stomach, the Miſchief wil be the greater, and ruine is thereby threatned to the whol Body. Hence it was well ſaid of *Aetius*, Such as is a womans womb, ſuch for the moſt part, is the reſt of her body.

If wind or water be contained in the Cavity of the womb, it is more eaſily cured than if it be ſhut within little skins or bladders.

The Cure of this Diſeaſe is performed almoſt by the ſame Remedies which have been propounded to cure the Dropſie and Green-ſickneſs. Whereunto ſome things more properly belonging to this diſeaſe muſt be added. And in the firſt place concerning Blood-letting; In the Diſeaſe, being new, proceeding from a ſuppreſſion of the Courſes, and from ſome Plenitude ſtill appearing, blood-letting may be convenient; otherwiſe it wil hurt, ſeeing natural heat is exceedingly weakened and diminiſhed; and ſtubborn Obſtructions cauſed by a cold Humor, do cauſe fear of an Univerſal Dropſie.

But Purging is altogether neceſſary, and muſt be often reiterated, as we ordered in the forenamed Diſeaſes.

After ſufficient Purgation, Openers, Diureticks, and ſuch things as move the Courſes, are to be given, ſuch as are deſcribed in the places aforeſaid. Unto which, theſe following may be added.

Take *Roots of Smallage, and of Madder, of each half an ounce: the Leaves of Savin, Feaverfew, Penyroyal, of each one pugil: Carrots ſeeds one dram. Boyl all in the Broth of a yong Pidgeon, and let her drink the ſtrained Liquor divers daies together.*

Before ſhe drink of the Broth, let her ſwallow one of the following Pills.

Take *of the beſt Caſtoreum, Mirrh, Madder, of each half a dram: Saffron twenty grains. With Juyce of Lemmons make all into nine Pills.*

After which Medicaments the Patient muſt exerciſe her ſelf ſtoutly, by which means, not only the Excrements bred in the Bowels, and the whol compaſs of the Body, may by aſſiſtance of Heat be diſſipated; but all which is contained in the womb, may be voided out, the bladders being broken by violence of the Exerciſe.

If the woman do eaſily vomit, ſomthing may be profitably given her twice in a week to that end; by which means, not only the Humors which were wont to flow unto the womb, will be recalled, and brought forth; but the foreſaid bladders ſticking in the womb, and ſomtime containing a watry Humor, happily may be broken by the vehement motion and agitation, whereupon the Humor offending wil be voided.

To diſcuſs the ſaid Humor contained in the womb, the following Bolus, or Morſel, will be moſt effectual.

Take *of Mineral Borax half a dram: Saffron twenty grains: With Juyce of Savin, make all into a Morſel. Let it be taken twice in a week.*

Sweat-drivers are likewiſe very profitable in this diſeaſe, for by them, wheyiſh and flegmatick humors, whether in the womb, or the whol body, are diſcuſſed and evacuated.

In the mean while, the inbred heat of the Stomach muſt be ſtrenthened both with things given in, and outwardly applied, deſcribed in the Cures of the diſeaſes of that Part.

And outwardly, Medicines muſt be applied to ſtrengthen the womb, and to diſcuſs the Humors contained therein.

And in the firſt place, Fomentations and Baths to ſit in, may be made of a Decoction of Briony roots, wild Cucumer, the leavs of Danewort or Dwarf-Elder, Mercury, Elder, Origanum, Calamint, Wormwood, Rue, Sage, Marjoram, Time, Bay, Penyroyal, Mugwort; Seeds of Broom, Carrots, Cummin, Annis, Fennel; Berries of the Bay and Juniper Tree; Flowers of Chamomel, Melilot, and Roſemary. Of which, little bags may likewiſe be made, boyled in white Wine. Or the foreſaid Ingredients, or ſome of them, may be boyled in the Lye made of the aſhes of Vine-boughs.

And that the foreſaid Fomentations may work the better, they are to be applied before and behind: and the ſick woman ought to ſweat, if ſhe can, in her bed, or in a Stove conveniently prepared. Which likewiſe may be procured by help of a Bathing Tub.

In a windy Dropſie, dry Fomentations will be more profitable, with bags of Milet, Salt, Cummin-ſeed, and Bran, fryed in a pan and beſprinkled with Wine.

After Fomentation let her Belly from the Navel downward, be anointed with Nard Oyl, Oyl of Dill, Oyl of Rue, Wormwood, and Southernwood. Which Oyls, if drawn out by Chymical Art, they wil be much more effectual.

After Unction, lay on a Plaister of Bay-berries, or a Pultis of Cows and Sheeps Dung, with Seeds of Smallage, Parsly, and Cummin, as also Honey boyled therewith.

To the same purpose the Skin of a Sheep newly killed is commended, sprinkled with warm Canary Sack, and laid warm upon the Belly.

Clysters are frequently to be given, made of the Decoction of Wormwood, Origanum, Penyroyal, Rue, Centaury, and the like: Or of the Oyl of Rue, Nuts, and Dill, with white Wine, Hypocras, or Muskadine. In which Clysters dissolve *Benedicta Laxativa*, *Hiera Diacolocynthidos*, *Terebinthinam*, Confection of Bay-berries, Rosemary-flower Honey, and the like.

Injections into the womb may be very profitable to evacuate the Humors contained therein, being compounded after this manner:

Take *Roots of Arabacca three drams*: *Leaves of Penyroyal, Calaminth, of each half a handful*: *Savin a pugil*: *Mechoacan a dram*: *Annis seed, Cummin seed, of each half a dram. Boyl all, and in six ounces of the strained Liquor, dissolve an ounce of Oyl of Orice, and as much of Elder Oyl, and make thereof an Injection.*

To the same end may Pessaries be made, thus:

Take *Coloquintida and Mechoacan, of each one dram*: *Sal Nitre ten grains*: *boyled Honey as much as shall suffice. Make all into a Pessary.* Or,

Take *Bindweed Roots, Roots of Ysula, of each a dram*: *Seed of Gith, or Nigella Romana half a dram*: *Honey as much as shall suffice. Make all into a Pessary.* Or,

Take *Elaterium half a dram*: *bruised Figs as much as shall be requisite. Make them into a Pessary.*

When the Swelling of the womb proceeds from wind, a Fumigation of Nutmegs is very helpful, being commended by *Solenander*, in these words: *A Woman newly out of Child-bed, exposing her self over soon to the wind and air, fell into insufferable pains, neither could she find any help. At last comes an old well experienced Midwife, and calls for three Nutmegs grosly poudered. Then she put an Earthen pan with hot Coals under the woman, and sprinkled the pouder of Nutmegs upon the Coals, so placing the pan, that the woman might receive the smoak through a funnel into her womb by the Water-Gate. At the same time she was smoaked above with the same Fume: Which when it had penetrated into her body, the woman presently cries out, I must needs go to stool: which she had hardly spoken, but a fizzing and sound was heard, such as is made when Gun-pouder is fired being shut in a narrow box: which wind being expelled, the woman was perfectly well in a moment. Being advised by this Experiment, having upon like occasion used the like Remedy, I have very often found it to do much good.*

In the same case, Cupping-Glasses with much flame, is profitably set upon the Navel, for it excellently dispels wind.

If the Disease come from Humors, Issues are to be made in the Thighs, that by those Fountains the filth of the womb may be by little and little drained out.

Brimstone and Nitrous Baths are commended likewise by many, both to drink, and to be washed in; provided there be no great heat of the Liver or whol Body, conjoyned with this Disease.

For the pain of the womb, which is frequently troublesom in this Disease, *Amatus Lusitanus* commends the water or Decoction of Chamomel flowers, given to the quantity of four or five ounces.

And finally, If the Inflation or puffing up of the womb happen after Child-birth, there wil need no other Purgation than that by the womb: Which if it find any hinderance, it must be helped forwards by drawing Pessaries, and by Cupping-Glasses fastened to the Thighs, and by other Medicines described in our Chapter of Suppression of Courses. And if there be wind, the Fumigation made of Nutmeg aforesaid, will be most seasonable.

Chap. 11. *Of the falling down of the Womb.*

When the womb loseth its Natural Scituation, and fals towards the Water-Gate, the Disease is termed, the falling down, or slipping forward of the womb.

Many Differences there are of this Disease, differing only in degrees: For somtimes only the inner neck falls down into the Water-gate: somtimes the whol body of the womb fals downwards, but does not appear without the Water-Gate, in the threshold whereof appears the inner mouth of the womb, in likeness of a mans Yard, or a Goose Egg with an hole in it. Other whiles with the bottom turned out, it hangs without the Water-gate like a mans Cod, or an Ostridges Egg, save that it is rugged, and hath an uneven surface: and it is in a word, somtimes so relaxed, that it falls so far out as to reach the Patients Thighs.

The

The immediate Cauſe of the falling down of the womb, is the Rupture, or Relaxation of thoſe Ligaments, which are wont to retain it, and its Neck in their proper place.

A Rupture of the foreſaid Ligaments may proceed from all violent Cauſes, as a blow, a fall, dancing and leaping, lifting ſome heavy burden, or carrying the ſame, violent compreſſion of the Abdomen, vehement Coughing which dures long, violent neezing, eſpecially in Child-bed, hard ſtraining to ſtool, difficult Travel, violent extraction of the Child out of the womb, or of the After-birth; vehement endeavor of the womb to caſt out ſomwhat offenſive thereunto, as a dead Child, a Mole, or an After-birth: for then, according to *Galen*, in his Third Book of Natural Faculties, the ſame thing betides the womb, which is wont to happen to two wraſtlers who endeavor to throw one the other upon the ground, till both fall together. Hereunto add, frequent ſetting of Cupping-Glaſſes upon the Thighs, and very vehement agitation of Body, or of Mind.

Relaxation or ſlackening of the Ligaments is cauſed likewiſe by divers cauſes, as by a long-laſting Catarrh, divers Crudities, which are caſt out into the womb, as the ſink of the whol Body. Whence it is that women long troubled with the Whites, can ſcarce avoid this Diſeaſe, eſpecially elderly women which are moſt of all troubled therewith. Add hereunto external cauſes, as over-frequent bathing, eſpecially in cold water; Southern and moiſt Air, eſpecially being received into the womb after Child-birth; moiſt Diet, much drinking; Idleneſs, long ſleep, and all other cauſes, which may decreaſe flegm, and cauſe its flux into the womb.

The Signs whereby to know this Diſeaſe are evident to the ſence. For the womb is found ſticking in the Water-gate like an Hens or Gooſes Egg, or like a Clew of Thred, with the perceivance of a weight preſſing upon the Water-Gate, when the Patient ſtands upright. And while they ſit or go to ſtool, a vehement pain is felt about the privy Parts, and the Region of *Oſſacrum*, or the Hanch-bone. If it hang far out, the greater pain and heat is felt, the urine comes away by little and little, and makes the womb ſmart as it paſſeth.

The Cauſes procuring this Falling-down of the womb, may be thus diſtinguiſhed. If it proceed from looſneſs or ſlackneſs of the Ligaments, it comes by little and little, hath the leſs pain, and white Purgations have preceded, or other Cauſes moiſtening the womb, and relaxing the Ligaments thereof. But if it proceed from a breaking of the Ligaments, the pain is more vehement, and blood ſomtimes breaks forth; and ſuch Cauſes have preceded which have been able to break with violence the Ligaments.

As for the Prognoſticks belonging to this Diſeaſe. The Diſeaſe of it ſelf is not dangerous; yet is it very unhandſom and troubleſom, hindering the Patient from freedom to go and walk at will; alſo from Conception and convenient expurgation of her Courſes.

Yet may it ſomtimes occaſion death, if pains, Feavers, convulſions, or other grievous Symptomes be joyned therewith.

Alſo the womb in this Caſe is ſomtimes corrupted through diſtemper of the Air, or by violent impulſion, and becomes Gangrænated, which neceſſitates it to be cut off.

The Diſeaſe being freſh, and the womb coming not far out, is more eaſily cured than when it is an old Infirmity, and the womb comes far out.

In yonger women, the womb is more eaſily reſtored to its place than in Elderly women.

Falling down of the womb, by reaſon of the Ligaments being broken, is incurable.

To come to the Cure. The womb is to be thruſt back into its Natural place, and to be detained there; and the fault of its Bands or Ligaments muſt be corrected; If they be broken, by things that do glue and ſodder together; if they be relaxed or ſlackened, with things drying, aſtringent, and ſtrengthening. All which may be done by the following Medicaments.

In the firſt place therefore, That the womb may more eaſily be reſtored to its place, the Guts and Bladder muſt be diſburdened, leſt preſſing the Neck of the womb, they ſhould hinder its reduction; foraſmuch as the neck of the womb reſts upon the ſtreight Gut, and the bladder reſts upon the neck of the womb.

When the Gutts and Bladder are diſcharged of their Excrements, let the woman lie along upon her Back, with her thighs wide aſunder, and her knees drawn upwards, and let her with her hands thruſt her womb inwards; and force it ſtill upwards into the neck, ſo as to turn it inwards as it goes, till all is returned within the cavity of the Belly which ſhould contain the womb. Or if ſhe is not able to do it her ſelf, let her do it by help of the midwife; or uſe a thick blunt ended ſtick with Cloaths wrapt about it, by which it may be forced further into the Cavity of the Belly, than is poſſible by the hands to drive it. Or, for fear of hurting her Body, a Peſſary may be made of Linnen Cloth often doubled and rowled together with a ſtring tied faſt thereunto, and accommodated to this ſervice of thruſting up of the womb.

But if the womb fallen from its place ſhall ſwell, ſo that it cannot enter into the cavity of the Belly, the ſwelling muſt in the firſt place be removed. And if there be an inflamation, ſuch things muſt be applyed as are fit to heal the ſame. If otherwiſe it be blown up, ſuch things muſt be uſed

as will discuss the inflation. *Rodericus a Castro* washes the swollen womb with a Decoction of Beets, and then sprinkles it with vineger and salt, and so when the swelling is abated, he reduceth the same.

The same *Rodericus a Castro* writes, that it is very good towards restoring the fallen womb, for a Physitian or a Chyrurgion to come with burning red hot Iron in his hand and to make as if he would thrust it into the womb. by that means nature contracts her self, and the womb with her, and any other part that sticks out of the Body. For he relates that a certain very expert Chyrurgion did by this stratagem force back a mans Gutts, that were ready to come out at a wound in his belly, when other remedies did no good. For holding a great red hot Iron in his hand, the Patient looking on, he made as if he would Clap it upon the wound. With the sudden fright whereof the Gutts were presently drawn back into their place.

Avenzoar in his Second Theizir, Tract 5 Chap. 4. Propounds some such thing as this. *When this disease* (saith he) *begins first to appear, the Physitian may gently cure the same. And it is reduced all these wayes, viz. by your hand If you please; and if not make her lie on her Back, and let some Body sit upon her brest, and another upon her thighes; and then cause her to be frighted putting some creeping Vermin upon her Leggs, such as Mice, Efts, frogs and such like; by which let her be so frighted as to endeavour to get away by drawing her Leggs and thighs up to her; whereby all her Members and her whol Body may at once be contracted: by which meanes the Womb will return unto its own place.*

Zacutus Lusitanus following *Avenzoar* relates the following story in the 66 observation of his Second Book. *Coming to a woman* (saies he) *which had her Womb fallen down the space of a year & an half, with extream hardness; it seemed very hard by reason of its stretching out to be reduced to its place; especially seeing* Avenzoar *saies, that this work must be done before the Womb be grown hard. I devised many remedies for this disease; astringent Insessions, Pessaries, Plasters, Confections. At last, having wrastled stoutly with the disease, I could do no good. I betook my self to this stratagem. I put Mice tied by the tailes, between the womans Leggs. Which running up her Thighs, the woman is mightily frighted, and forthwith* (a strang thing to see) *her Womb is reduced into its proper place. This done, The Plaster against Ruptures being laid upon the Region of the Womb and to the Groynes, she remained for the time to come free from that Disease.*

Before the VVomb be reposed in its place, it must be anointed with the Mucilage of comfrey Roots, or with an infusion of Gum Tragacanth. Then are pouders to be sprinkled thereupon, which have no asperity or sharpness, least they hurt the VVomb or its neck; but of quality rather gluing than astringent or binding. Such an one may be thus made.

Take *Frankincense, Mastick and Sarcocolla nourished* (that is, well steeped so as to drink up as much of the Milk as it can hold) *with Brest-Milk, of each one dram. Mummy, Gum-arabick, Acacia, Hypocistis, of each half a dram. Make all into a most fine Pouder, to be sprinkled as aforesaid.*

The same Pouder may be applied in form of an Oyntment, if it be mixed with the aforesaid mucilages, or Oyle of Saint Johns wort, or some other consolidating thing.

After the VVomb is conveniently replaced, all art must be used to retain the same in its place, the woman lying in her bed, a little bending, with her thighes gently stretched out and the one resting upon the other. And let her abide some daies in this posture, and put in at the Water-gate a little wooll, cotton, or spunge wet in harsh red VVine, or in Rosewater wherein Acacia or Hypocistis hath been dissolved.

To further this Retention of the VVomb in its place, Cupping-Glasses with much flame are frequently to be fastened under her Duggs and upon her Navel.

Likewise sweet savors are be presented to her Nose, and stinking things to be applied to her Genitalls, unles she be subject to fits of the Mother.

Let the said Parts be fomented with a Decoction of astringent things made in red VVine and the VVater of a Smyths Forge.

Also Practitioners use a Bath to sit in, made of the Same Decoction. In which there needs caution. For it is to be feared, least in that posture, the VVomb should again fall from its place, especially at the beginning, while the Disease is yet fresh. But when it hath held the Patient long, and she is provided of a convenient kind of Truss, such a bath will do much good.

After the said Bath a Fumigation will likewise be very good, of Frankincense, Mastich, Sandarach, red Roses. Others indeed do commend a Fumigation made of a salted Eel-skin.

Injections into the VVomb will work much more effectually than those remedies which are outwardly applied: they may be compounded of the Decoction for the Fomentation or Sitting Bath aforesaid,

Oyntments and plasters will likewise be good in this case such as were described in the Immoderate flux of Courses and in the VVhites; and as shall hereafter be propounded to prevent Abortion.

The

The Retention of the Womb in its place may likewiſe be holpen, by aſtringent and ſtrengthening Medicaments taken in at the Mouth. And among the reſt, the following Pouder frequently taken is very proper for this Diſeaſe.

Take *Mullein two drams: Myrtle Leaves, Garden Parſnep Seeds of each one dram: Shavings of Harts-Horn, half a dram: Aſhes of Cockle-ſhells one dram: red Coral two drams: Make all into a Pouder. The Doſe is one dram with harſh red Wine.*

Touching theſe aſtringent Medicaments both internal and external it is to be obſerved; that they muſt be warily uſed, if the womans courſes do ſtill flow at their ſeaſons, leaſt they being ſuppreſſed may cauſe more grievous Diſeaſes to follow. The beſt ſeaſon for theſe Medicaments, is when the Patients courſes are paſt.

Theſe Remedies are to be contained twelve or Fifteen daies together. Alſo care is at the ſame time to be taken, that the Patient be neither coſtive nor looſe. For if the Excrements be hard, the Womb is eaſily thruſt out, by the Patients ſtraining at ſtool; and a looſe Belly doth relax or ſlacken the bands or Ligaments of the Womb.

While the foreſaid Remedies are uſed, we muſt reſiſt the Antecedent Cauſe, by ſuch things as ſhall purge out and diſcuſs thoſe flegmatick humours which relax and ſlacken the Ligaments of the Womb.

And firſt convenient Purgations muſt be ordered; which muſt not be violent in their operation and diſturbing, leaſt they caſt the Womb out of its place again, bringing abundance of humors into thoſe parts.

Some allow of vomiting, becauſe it draws the humors into the upper parts of the Body: and in that reſpect it would be profitable, if it were not to be feared in another regard: Namely becauſe it is performed with great ſtraining, and drives the Womb downward, as much as neezing. Yea and experience hath taught that nothing doth more effectually facilitate hard travel, and bring the Child ſooner into the light, than a Vomit given to the Childing woman.

After ſufficient Purgation, a Decoction of Guajacum is to be given three weeks together that every day the Patient may ſweat in the morning. And in the Evening let her Belly beneath the Navel be fomented with a Decoction of Sage, Origanum, Marjaram, Time, Feaverfew, Tanſie, Wormwood, Rue, red Roſes, Cyperus Roots, Calamint, Cypreſs Nutts, and the like ſimples boyled in Smythes Forge-water and red Wine. After the Fomentation, the Fumigation and Liniment may be uſed which were before deſcribed.

Inſtead of a Sweat-driver, or after the uſe thereof, Bathes ariſing from Sulphurous Mines, will be ſingularly profitable, ſuch as our Baleruean Baths; and experience hath ſhewn that many have bin cured by ſuch Bathes.

And that a woman may be ſecure that her Womb fall not down again, which it is very apt to do; or if there be no hope of a perfect cure let her wear ſuch a kind of truſs as is called *Hyppocrates* his Girdle. Whereby women are ſo guarded and defended, that without fear of the falling down of their Wombes they may go about and do their daily buſineſſes; alſo their Womb is thereby defended from the cold. They are made almoſt after the ſame manner, as truſſes that are uſed againſt Ruptures or Burſtennes.

Peſſaries are likewiſe very profitable in deſperate Fallings down of the Womb, which ſome do make of a good long piece of cork covered over with Wax. Others make of Wax alone, ſome round, others ſquare, triangular, oval or any other faſhion; which are conveighed into the Cavity of the Womb, and are never taken out, but keep the Womb in its place: ſo as the women notwithſtanding do all their uſuall enployments, conveniently are enjoyed by Men in carnal conjunctions, do conceive, carry their big Bellies, and bring forth. VVhich is confirmed with many Examples by *Franciſcus Roſſetus* in his Book entituled *De Partu Cæſareo*, Sect. 6. Chap. 5. and by *Bauhine* in his Appendix to *Roſſetus*. All which are tranſcribed word for word by *Schenkius* and *Sennertus*, in their proper Chapters, where they are to be ſeen.

Chap. 14. *Of the Womb ſhut up, or Imperforated.*

VIrgins that have their Wombs cloſed up, are ſaid to be imperforated, or unboared, like a Barrel of Beer that hath no hole to put in a Spigot. Now this Cloſure of the Womb is wont to be in three places; viz. In the inner Mouth of the Womb, in its Neck, and in the outward mouth of the Womb next the Water-Gate. And it is cauſed, either in the firſt formation of the Infant, when ſome Membrane is drawn before the mouth of the Womb, or its neck; or by ſome precedent wound or ulcer, which growing whol again, the parts of the neck of the womb, or its lips come to be cloſed together; or by tumors ſhutting or ſtopping up the inner Orifice; or by ſome compreſſion, ſtreightneſs, or diſtortion, which hinders the mans Yard and Seed from going in, and the Monthly Purgations from coming out.

This

This Disease is in part easie, and in part hard to be known. If the closure or stoppage be in the outward Orifice of the Privity, it is discerned by seeing & feeling. But if it be in the Neck or Mouth of the Womb, it is not discerned til the courses begin to break out, or til the parties begin to addict themselves to generation. For when the time of their monthly Purgations is come, pains and gripings are felt in the Region of the Womb at certain periods of times, with a sence of weight, yet no flux of Courses follows; the Conjecture wil be more probable, if the Virgin be of a good habit of Body, not troubled with any Obstructions, or Cachectick dispositions. The Disease persevering, their wombs swel, so that Maidens seem to be with Child; and sometime their whol Body swels, which likewise seems as it were black and blew through the abundance of blood. But if the closure do possess the neck of the womb, it is perceived in the first Carnal Conjunctions, because it doth not admit the Mans Yard.

Lastly, If the Closure be in the Orifice or Mouth of the Womb, it is hardly discerned; yet may it be in some measure perceived by the hand of a skilful Midwife; and it gives some suspition thereof when the mans seed doth presently slip away, as soon as it is cast in.

As for the Prognostick. If the Closure be in the Orifice of the Privity, it is easily cured, being opened by a slight Section. But if it be in the inner parts, it is much harder to cure.

When the Passage is stopped with a Membrane, its more easily cured; but when the closure is caused by a fleshy matter, as it happens after Ulcers, the Cure is more difficult.

The Closure of the inner Orifice of the Womb is incurable, because the Instruments of Chyrurgiry cannot be applied to open the same.

The Cure of this Disease, because it belongs chiefly to Chyrurgiry, we shall dispatch in few words.

If the Closure of the Womb have been caused in the first formation, it is to be opened by cutting only. The manner of which cutting is largely described by *Sennertus*, in its proper Chapter.

But if the Closure have been occasioned by reason of an Ulcer, as it happens in the Whores Pox; it is to be considered, whether it be only an excrescence of flesh not wholly stopping the passage, or a perfect and entire growing together of the sides of the neck, or of the lips. For, if flesh only be grown up, endeavor must be used, convenient Evacuations being premised, first to prohibit the encrease of that flesh by drying and discussing Medicaments, then to diminish the said flesh by Medicines of Frankincense, Birthwort, Bark of Frankincense, Roses, Balaustines, Mastich, Mirrh, Aloes, and such like. Which not doing the deed, we must come unto such flesh-consumers as are least painful, as burnt Allum, *Unguentum Ægyptiacum*, and such like. And at last, if this wil not consume the flesh, it must be cut off round about, with the same Instrument wherewith the superfluous flesh breeding in the Nose, called *Polypus*, is wont to be cut off. But if the neck of the womb be wholly grown together, we must try to renew the Ulcer, and with the foresaid Medicaments to remove the superfluous flesh. And if that cannot be, we must undertake to cut it, in the very self same manner, as we are wont to cure the natural coalition of the neck of the womb.

If the passage of the womb be shut up by some tumor, proper Remedies are to be appointed thereunto; such as have been propounded in the Inflamation, Scirrhus, and Cancer of the womb.

If it be caused by compression of the neck of the womb, or of the inner mouth therof, the compressing cause is to be taken away, which may be divers, viz. A Stone in the Bladder, a Swelling in the streight Gut, Fatness of the Caul, the Legs or Thighs distorted, and going a play; the Cure of which accidents see in their proper place.

In streightness of the Passage, which is chiefly caused by hardness or dryness, we must work with things moistening, emollient, and laxative; with Baths to sit in, Fomentations, Liniments, and Pessaries: and so when the part is relaxed, a little pipe of Lead may be put in, or of white wax artificially contrived, and smeared with Butter, or some emollient Oyl, which let her alwaies carry, or at least in the night when she goes to bed, and in the day time, let a Pessary conveniently made of Cotton be put in the place, being smeared with Oyntment of Marsh-mallows, or such like.

In Distortion, the same Method of Cure, very neer, is to be observed; and let the pipe be so framed, that it may gently bow the contrary way to the distortion; and so the neck of the womb may by little and little be reduced to its due place.

Chap. 15. *Of Barrenness.*

THis word *Barrenness* or *Sterility*, is not in this place taken in so strict a sence, as to signifie only a total defect, and perfect abolition of Conception; but in a large and ample signification, so as to comprehend all kind of impotency, and every impediment of Conception: namely, When a woman at such an age in which she ought naturally to be capable of Conception, and using the company

pany of a man, doth not conceive. And this defect is termed *Agonia*, or *Atecnia*, that is, Inability to conceive or bear children.

And this Barrenneſs or Impotency of Conception, is cauſed divers waies; all which for cleerneſs ſake, we may reduce to four Heads, according to thoſe four Natural Operations which are required to perfect Conception.

The Firſt of which is, That the Woman in her Genial Embracements, do conveniently receive the Mans Sperm into her Womb.

The Second, That ſhe retain the ſame a convenient ſeaſon.

The Third, That ſhe cheriſh and preſerve the ſame in her Womb.

The Fourth, That ſhe afford fitting Materials to form the Embryo, or firſt Conception, and duly to augment the ſame, as need ſhall requite.

Hence Four Impediments of Conception do ariſe; viz. If the woman receive not the Seed; If ſhe retain it not; If ſhe preſerve and cheriſh it not; If ſhe nouriſh it not ſo as it encreaſe and grow.

Reception of the Seed is hindered by many Cauſes; by things Natural, things not Natural, and by things Preternatural. Among things Natural hindering the Reception of the Sperm, in the firſt place is reckoned, youngneſs of Age, in which, by reaſon of the ſmalneſs and ſtraitneſs of the Genital Parts, the woman cannot receive the mans yard, or not without very great pain, which makes her worſe for Genial Embracements. The ſame effect is cauſed by over great Age, ſeeing that in elderly Virgins, the Genital Parts, through want of being exerciſed in actions tending to Generation, do become withered, ſlap, and flaggy, and ſo ſtrait, that they cannot afterwards eaſily admit a mans Yard. Likewiſe, all ſuch as are naturally lame, with diſtorted Legs, and their Crupper-bone depreſſed, can hardly put themſelves into ſuch a convenient poſture during the genial Embracement, as is neceſſary that the Seed may be duly and rightly received. Hereunto add over great fatneſs, which ſtraitens the Paſſages of the womb, and by greatneſs of the Belly, hinders the right and fit Conjunction of the man with the woman. And laſtly, a cold diſtemper of the womb, makes women dull and liſtleſs, ſo that they enjoy no pleaſure (to ſpeak of) in the Genial Embracement, or it is long before they are provoked with deſire; ſo that the inner Orifice of the Womb is not timely enough opened to receive the Mans Sperm.

Among things not Natural, Paſſions of the Mind hold the firſt rank, and eſpecially hatred between Man and Wife; by means whereof, the Woman being averſe from this kind of pleaſure, gives not down ſufficient quantity of Spirits, wherewith her Genitals ought to ſwel at the inſtant of Generation, that her womb skipping as it were for joy, may meet her Husbands Sperm, graciouſly and freely receive the ſame, and draw it into its innermoſt Cavity or Cloſet, and withal bedew and ſprinkle it with her own Sperm, powred forth in that pang of Pleaſure, that ſo by the commixture of both, Conception may ariſe.

The things Preternatural which can hinder the Reception of Seed, are certain Diſeaſes incident to the Genital Parts, or to ſuch as border neer upon them; as Tumors, Ulcers, Obſtructions, Aſtrictions, Shuttings up, Diſtorſions, Stone in the Bladder, and other ſuch like.

The Second fault in Women, which hinders Conception, viz. When the Seed is not retained, depends either upon the over great moiſture of the Womb, namely, when the womb is filled with many excrementitious Humors, by which becoming looſer and more flaggy than is fit, it doth not rightly purſe and contract it ſelf together, ſo as to retain the Sperm; or the Orifice of the Womb is ſo ſlack that it cannot rightly contract it ſelf to keep in the Seed; which chiefly is cauſed by Abortion, or hard Labor in Child-birth, whereby the fibres of the Womb are broken in pieces one from another, and they, and the inner Orifice of the Womb over much ſlackened. And that ſame immoderate moiſture may ariſe both from the proper Conſtitution of the woman, and from external cauſes of moiſture, ſuch as Baths, Idleneſs, moiſt Diet, and eſpecially from the Whites; which flux of Whites happens very frequently, ſince the Womb is as it were the Common-ſhore, whereinto all the parts of the Body do diſcharge their Superfluities, ſo that this is wont to be the moſt frequent and ordinary Cauſe of Barrenneſs.

The Third Cauſe hindering Conception, viz. When the Sperm is not ſufficiently nouriſhed in the Womb, depends upon ſuch things as are apt to corrupt the Seed, as every diſtemper of the womb; namely, a cold diſtemper, which extinguiſheth the Seed; an hot diſtemper, which diſſipates the Spirits; a moiſt diſtemper, which robs the Seed of its due thickneſs; and a dry diſtemper conſumes and drinks up the Seed: and thus the Seed being by theſe diſtempers corrupted and degraded from its natural Conſtitution, becomes unfit for Conception. To theſe Cauſes, Authors do add Witchcrafts, and Charms, by which all confeſs that Conception may be hindered. Likewiſe external things, as Meats and Poyſons may do as much, ſuch as are reckoned up by Authors, viz. Among Meats, Vinegar, Mint, Water-Creſſes, Beans, and ſuch like: and among Poyſons, or at leaſt ſuch things as have a certain venemous property cauſing Barrenneſs, The Agate or Jet, the Matrix of a

Goat

Goat or Mule, Glow-worms, Sapphires, Smaragds, and the like. And lastly, Malignant and venemous Diseases, may exceedingly corrupt the Seed, and render it unfit for Generation, as the Consumption, Leprous Infections, Whores-Pox, stinking and cancerated Ulcers.

The Fourth and last Cause of Barrenness, viz. When the woman doth not yield convenient matter to form the Conception, and to augment the same, depends upon a want of Seed and Menstrual blood; so over yong women and over old, do not conceive, through want of both those Materials. The Age of a woman fit for to conceive, is commonly determined to be from the fourteenth to the fiftieth yeer of her Age. Yea, and though those foresaid Materials are not wanting, if yet they are ill disposed, they are not fit for Generation. And they may be ill disposed through divers distempers, and other Diseases; likewise by reason of bad Diet, producing none of the best blood. So women which gorge themselves with much raw fruit, and cold smal drink, breed wheyish blood unfit for Generation. Yet we must needs confess, that some women have conceived who never had their Courses, as may be collected out of the Observations of divers Authors; yet so much Menstrual blood was collected in those women, as useth to remain over and above in such as have their Courses, though they had not so much as to cause their monthly Courses.

To the Causes hitherto mustered up, must be added a certain disproportion or unsutableness between the Mans Sperm, and the Womans, which makes they cannot be rightly mingled, nor conspire to the Joynt-making up of an Embrion or Rudimental Infant; though there be in the mean while, no sensible defect, either in the Man or Wife. And it sometimes happens, that the same man can have a child by another woman, and the same woman by another man; whereas they have lived together in the married estate barren. It comes likewise to pass, That a woman shall live with a man for ten or more yeers together, and not conceive child, and afterward shall begin to conceive and bring forth: the Cause of which accident is, The change of Temperature caused by yeers, whereby the Seed comes to have another temper, so that being before disproportioned to the mans Seed, it comes by change of Age to be fitly proportioned thereunto. Now this disproportion of Seeds, consists chiefly herein; When men much exceeding in some quality belonging to their temper, are joyned with women which partake of the self same excess, viz. When over hot men are joyned with over hot women, over cold men with over cold women; for those distemperatures can procure no mediocrity in the Seeds, and other causes necessary to Generation. Some fly likewise to occult or hidden qualities, which make the Sperms to agree, or disagree, though no excess of the first qualities can be discerned.

To these Authors add an hidden kind of Disposition, which makes some women barren, though no manifest cause of such Barrenness appear in them.

The Signs of Barrenness, we will run over according to these four sorts of Causes propounded.

And in the first place, Causes hindering Reception of Seed are not hard to be discovered, being evident to our very Sences. For tenderness of Age is easily observed, and so is an over elderly state of yeers; and the evil constitution of those parts which border upon the womb, as when women halt, have crooked wreathen Legs, have their Crupper-bone depress, or are over fat; as for the cold distemper of the womb, we shall treat of that in our third Rank of Causes. Hatred between Man and Wife is known by relation of themselves, or of those that live with them. Also the particular Diseases hindering the reception of Seed, as Tumors, Ulcers, Obstructions, Astrictions, shuttings up, Distorsions, may be known through search of the Genital Parts made by a Midwife or Chyrurgion.

Of the Causes hindering the retention of Seed, which make the second Rank, we shall treat of over great moisture among those of the third Rank; as for Abortion and hard Travel, they are known by the womans relation.

The Causes of the third Rank, viz. Which have power to corrupt the Seed do require more exquisite signs to know them by, which we shall prosecute as followeth.

A Cold Distemper of the Womb, is hereby known, In that the Woman longs not after Carnal Embracements, and feels little pleasure therein; her Face is soft, whitish, and cloudy; her feeling is dull about her Share, Loyns, and Thighs; she voids thin and crude Sperm, and with little pleasure; her Courses are suppressed, or they come very sparingly, and keep no constant orderly time, and they are pale and discolored. Add hereunto, Diet preceding of a cooling Nature, consisting of a long use of Fruits and Herbs, with much drinking of cold smal Drink.

A moist distemper of the womb is known by the lax, and slap, flaggy, soft habit of the womans body, her much sitting, frequent and almost continual flux of Whites; plenty of Courses, thin and watry, no appetite to fleshly Conjunctions, heavines of her Loyns, aptness to miscarry, plenty of Urine, and a moist Diet.

An hot Distemper is known, by the manly and strong habit of the womans Body, such as is seen in Viragoes and Amazones; by a ruddy countenance, black hair of the Head and Eye-brows; a strong and

and manly voyce; ſhe is frequently diſpoſed to be angry, over prompt to all kind of actions, her thirſt cannot be ſatisfied, her Urine is yellow, her Courſes few, their color is a dark red, their heat and acrimony ſo great, that oftentimes they exulcerate the ſecret Paſſages; their Privities itch, and they are prone to carnal Embracements; they are quick and ſuddain in the voiding of their Seed; they have frequent Pollutions, and luſtful Dreams.

A dry diſtemper of the womb is known by the ſmal quantity of Courſes; drineſs, itching, and choppings of the Mouth of the Womb; little excretion of Sperm in the Genial Embracement; trouble ariſing from over much carnal Conjunction, and Leanneſs.

If the Seed be corrupted, and Barrenneſs cauſed by Witch-craft, all other ſigns will be abſent, which are wont to declare the Natural and manifeſt cauſes of Barrenneſs. There will be likewiſe ſome alienation of minds between the married Couple, of which neither of them can give any handſom account; yea, and ſomtimes they can both of them, but ſeldom ſhoot forth their Seed, and that with Labor and Difficulty.

Diet or poyſons that extinguiſh Seed, if they have been taken in, we ſhall come to knowledg thereof, by diligent queſtioning of the woman, and thoſe that are about her.

And laſtly, Malignant Diſeaſes, ſuch as are of power to extinguiſh the Sperm, as Leprous Manginеſs, the Whores-Pox, and ſuch like, are known by their proper ſigns.

The fourth Cauſe of Barrenneſs, which conſiſts in defect or badneſs of the Menſtrual blood, is known, firſt by the over great fatneſs of the whol Body, to the nutriment whereof the blood is carryed away, and conſumed, and is not allowed for the nutriment of the child in the womb. The ſame is likewiſe known by great Leanneſs of the Body, and extream ſlenderneſs; for when there is not blood enough to nouriſh the Body, it can hardly ſuperabound to nouriſh the Conception.

And in a word, All ſuch things as conſume, and much diminiſh the blood, if they have preceded, or be at preſent in the Patient, they ſignifie want of blood in her body; ſuch as are, extream labors and pains-taking, immoderate ſitting up, and watching, auſtere faſtings, large bleedings at noſe or elſewhere, acute or chronical Feavers, Fiſtulous Ulcers, and Iſſues that run much.

Somtimes likewiſe, over great quantity of blood, doth hinder the nouriſhment of the Seed, and of the Conception; for the Seed is oppreſſed with ſo great plenty, and cannot exerciſe its formative faculty: which is wont to happen in full bodyed, and ruddy women, ſuch as live a jovial life, and delight in Feaſting, whoſe wombs are alwaies bedabled with a continual moiſture.

Now the ill diſpoſition of the womans blood, may be known by the ill habit of her Body, the color of her Courſes, and other ſtrange diſpoſitions, together with an ill diet foregoing.

The diſproportion of the Husband and the Wifes Seed is hardly known; but if both of them be of a very hot, or a very cold Conſtitution, we may conjecture, That the diſproportion ariſeth from thoſe diſtempers; if other more manifeſt cauſes of Barrenneſs, do not appear.

It is yet harder to diſcover that kind of Barrenneſs which depends of a certain hidden diſpoſition, no manifeſt cauſes thereof appearing. Yet many Experiments are related by Authors, whereby to know whether a Woman be Naturally Barren, which though they carry no great certainty with them, yet are Phyſitians neceſſitated ſomtimes to make uſe of them, in favor of Princes and Nobles, who are permitted to divorce their Wives, in caſe of Barrenneſs.

Hippocrates in Aphor. 59. Sect. 5. ſaith, *If a Woman conceive not, and thou wouldeſt know whether ſhe ſhall conceive or not, cover her with blankets, and burn ſome perfume under her, and if the ſmell proceed through her Body, up to her Noſtrils and Mouth, know that ſhe of her ſelf is not Barren.*

The ſame *Hippocrates* ſuppoſeth that it may be known whether a woman be fruitful or not, by putting a head of ſcraped and peeled Garlick into her Womb; for if the next day the ſmel ſhall come into her mouth, ſhe is apt to conceive; if not, ſhe is barren.

Or put Galbanum ſoftened at the fire, and encloſed in Silk, into the womans womb at night, and bind her whol head in perfumed Linnen; if in the morning the crown of her head ſhall ſmel of Galbanum, the woman is wel purged, and wil be fruitful.

You may try the ſame, if you put a little Balſom mingled with Water, and received in Cotton, into the Womb, binding it with a ſtring to her Thigh; for if the womb do draw it inwards, it is a moſt approved ſign of fruitfulneſs.

Amatus Luſitanus commends this following as a moſt true ſign: He takes a dram of a Hares Runnet, which diſſolved in warm water, he gives the woman to drink, being in a bath of hot water, and faſting. If the Woman do then feel pains in her Belly, he pronounceth her fruitful; if not, barren.

Many ſeek to know the Barrenneſs of a woman by her Urine, wherein they ſteep Barley: which Barley, if it grow within ten daies, they count it a ſign of Fruitfulneſs; if not, they account it a certain token of Barrenneſs.

And others, Finally, do powr the Womans water upon Bran or Fenugreek, and take it for a note of Barrenness, if Worms breed there.

For a Conclution to these Discoveries, We shall diligently consider and enquire, whether Conception and Generasion be not hindred by fault of the Man, or any deficiency in him. For in such a Case, it were vainly done to torment the Woman with a multitude of Medicines. Barrenness proceeding from the Man, may be known by the diseases of his Genital parts, as inability to raise his Yard, want of Sperm, Swelling of his Stones, Gonorrhœa, and the rest. And it gives some token hereof, if the Man be faint-hearted and Womanish by Nature, if he want a Beard, be slow in casting forth his Sperm, and his Sperm be cold, so that his Wife feel it cold in her Womb; if he have little or no Lust to Carnal Embracements, and perceive very little pleasure therein. And lastly, If such Causes have preceded which are of power to make the Seed unfruitful.

The Prognostick must be regulated according to the Method of the Causes, as we have ranked them.

And in the first place, Tenderness of Age hinders conception only for a time, which cannot be expected till the Woman is more grown. But Elderly years cause a Total dispaire of Conception. But if the Parties Courses do as yet proceed, in due season, there may be yet some hope of Conception; howbeit very small, especially in such Women as are at the fortieth yeer of their Age; for although Women that have had Children younger, are likewise wont to Conceive at that Age; yet such as have never been with Child, have little reason to hope that they shal Conceive at that Age, because the Womb having been so long unimployed, is become withered, shrunken up and unfit to Conceive Child.

Barrenness which is caused by an evil shape of the Members, as in such as are Lame, have distorted Thighs, or their Crupper-Bone depressed; is incurable.

But if Barrenness proceed from over Fatness, or some distemper of the womb not over old, the cure is to be hoped, by procuring leanness and by correcting the Distempers.

That Barrenness which is caused by other diseases, as by a Swelling, an Ulcer, Obstruction, whites, want of Courses, falling of the Womb, Consumption, Leprous Mangyness, Whores-Pox, and such like; is easier or harder to cure, according as the said diseases are either easie to be cured or hard.

For the Cure of this disease, whichsoever of the causes aforesaid hath produced the same; we must seek the removal thereof.

And in the first place, the straitness of the Genital Parts in regard of youngness of Age, needs no cure; for as Age encreases, they attain to a convenient wideness. But in the mean time, it is necessary that the Party abstain from Carnal Conjunction; because the overloon use thereof, doth spoil the natural constitution of those parts.

Barrenness which is caused by lowness of stature, or Elderliness of years, is incurable, yet endeavour may be used to help the same, by Emollient and Relaxing Medicaments, provided the Courses do still flow.

Over great Corpulency, must be corrected by an extenuating Diet and convenient Evacuations.

If Barrenness seem to arise from a bad Course of Diet, as in persons given over much to Belly-cheer, to Wine, or small Drink, such women are to be reduced to an exact Course of Life; and all excess of eating and drinking must be avoided.

Viragoes and strong constitution'd women, such as come neer to the Nature of Men, that they may be rendred fit for conception, must by all the art possible be effeminated, and reduced to such manners as become their sex; all meats of grosser nourishment being forbidden them, and all labours and exercises; their Courses being made conveniently to flow, by plenty whereof they may be abated of their manly courage, and grow soft and gentle. And if their monthly courses shall not suffice to that end, their humors must be diminished, by frequent Blood-letting, and purging; and by frequent bathing and other alteratiue remedies, the whole habit of their Bodys must be moistened and cooled.

If Barrenness be caused by Closure of the Womb, by distorsion, by obstructions, by Tumors or Ulcers; all these must be remedied by such Medicaments as are propounded in those Chapters which treat of their Respective cures.

Barrenness depending upon an hidden property in the woman which is natural to her, is incurable, and therefore it ought diligently to be enquired after, least remedies be applied in Vain.

If Barrenness come by witch-craft, Charming, or hidden power of Medicaments, there is little place for Physick; but the party must have recourse to prayers and supplications, which being Zealously poured forth, by men eminent in piety, do procure Help from the Almighty.

Howbeit against Medicines which by a secret power do cause barrenness, certaine Amulets are propounded by Authors, which have a peculiar vertue to resist the malignity of such Medicaments. *Cardan* will have it, that the Pizzle of a Wolf worn about the woman, will frustrate all such

Incantations

Incantations and faſcinations. Others do much commend the Adamant and the Hyacinth Stone. The Antients called Saint John-wort, the Divel-driver. The ſame vertue is likewiſe attributed to the Squil or Sea-Onion, to Eryngus, Sagapenum, Rue, & other things, being worn by Man & Wife. Alſo certain it is, that for the parties concerned, to endeavour confidently to deſpiſe and ſlight all Charmes and Witch-crafts, is very profitable in this caſe. Alſo (if the Author of the Witch-craft be not known) it is good for them to Change their Habitation, and to forſake their Houſes, Beds, wearing Cloathes, and other Houſhold ſtuff, wherein the Charmes are oftentimes concealed.

If an hot Diſtemper be the cauſe of Barrennes, the ſame Cure is to be uſed, which was deſcribed in the hot diſtemper of the Liver. But if the Exceſs of Heat be yet more violent, recourſe muſt be had to thoſe things which have bin deſcribed in our Chapter of Womb-fury. But the camphire muſt be left out of thoſe Medicines, Becauſe it is held to be a very great Enemy to fruitfullneſs.

Extream Dryneſs, hindring Conception, muſt be cured by a reſtorative Diet; and if the Conſumption of the fleſh be much, we muſt have recourſe to the Cure of an Hectick feaver *viz.* Uſe of Milk, frequent Bathing, and ſuch like.

But the moſt frequent Cauſe of Barrenneſs is a cold and moiſt diſtemper of the whol Body and of the Womb, which is often accompanied with the Whites, whoſe particular Cure muſt be fetcht from its proper Chapter. But the following Medicaments may be peculiarly applied to theſe diſtempers, which by a diſcreet Phyſitian may be varied; ſo as to make them more heating or drying, according as Moiſture ſhall the more offend.

And in the firſt place flegmatick humors abounding in the Body are to be evacuated by purging, diuretick and ſudorifick Medicaments. And certain Revulſions are to be made, by Iſſues in the Armes, Neck, or thighs. Alſo the principal parts are to be ſtrengthened with Treacle, Mithridate, Tablets or Lozenges of Aromaticum Roſatum, Confection of Alkermes and ſuch like. Alſo Purgations muſt be repeated at certain diſtances of time, if Evil humors do ſeem to abound.

Afterward we muſt proceed to ſuch things, which do by a peculiar virtue or ſpecifick property ſtrengthen the Womb, help Conception, and procure deſire of fleſhly Imbracements, of which kind of Medicaments there are innumerable formes deſcribed by Authors. We ſhall in this place chuſe out the principal and ſet before you,

And in the firſt place, An Electuary may thus be made.

Take *Roots of Eryngus and Satyrion candied or preſerved, of each one ounce. Green Ginger candied, half an ounce. Filbert Kernells, Pine-Kernells, and Piſtachios of each ſix drams: one preſerved Nutmeg. Seeds of Rocket and Water-Creſſes of each two drams. aſhes of a Bulls Pizzle, the Reins of the Sea-Scinkos and ſhavings of Ivory, of each one dram. Confection of Alkermes three drams. The Pouders Diambra and Diamoſchum* Dulce, *of each one ounce and a half. Amber Greece half a dram. With Syrup of Preſerved Citrons, make an Electuary, of which let her take the quantity of a Cheſſnut, at her lying down to ſleep, twice or thrice in a week, drinking a ſmall draught of Canary Sack or Hyppocras, after it.*

In the form of a Pouder, the following Medicaments may be adminiſtred.

Take *Seeds of Rocket, Siler Montanum, of each half a dram, ſhavings of Ivory, Cinnamon, Nutmeg, of each a dram, Muſk (in ſuch as can away with it) three grains. White Sanders three drams. Mix them and make of all a Pouder. The Doſe is one dram in Canary. Or*

Take *Seeds of Rocket, wild Parſnep, Cinnamon, Pouder of the Nutmeg, Electuary Diambræ and Diamoſchus, of each one dram: the Matrix of an Hare, a Bores-ſtones, a ſtaggs Pizzle, Gloves, of each half a dram: Muſk and Amber-greece, of each ſix graines, Sugar the weight of all the reſt. Mingle them, make them into Pouder, whoſe Doſe is two drams with rich Canary.*

The Afterbirth of a woman is believed to be of great efficacy, being dried and Poudered and taken to the quantity of a dram.

Some Reckon as a ſecret the Pouder of the Liver and Stones of a Boare-Pig which the Sow his Mother farrowed alone without any Brothers or Siſters by him. This Pouder they ſay cures Barrenneſs both in men and women.

Matthiolus in his Comments upon *Dioſcorides* cries up the Seed of the Herb Amy, in theſe words: *The Seed of the true Amy, which is brought from Alexandria, does exceedingly help the Barrenneſs of women. For experience hath ſhewn, that many have bin made fruitful only by the uſe of this Seed. For if it be drunk a drams weight in a morning in ſtrong Wine, or in broath of fleſh, being finely Poudered, every other day three hours before Meat, it gives great hopes of Children. But the Man muſt have to do with his Wife only on thoſe daies in which ſhe does not take the Seed.*

In ſuch women whoſe bowells are apt to be Inflamed, the ſhavings of Ivory will be very good, taken to the quantity of a dram in White Wine, for four or five daies together, after the monthly Purgation.

The Essence of Satyrion, described by *Crollius*, is most excellent in this case, if it be given from a scruple and two scruples, to a dram, in a Cup of Muscadine.

Salt of the said Satyrion is also very effectual, given to the quantity of ten grains in Muscadine, after the Courses.

Divers Decoctions are wont to be made to the same intent. The most effectual, are these which follow:

Take *Eryngo Roots one ounce: Mugwort, Nep, of each a handful: Boyl them in white Wine. Give a Cup of the Decoction morning and evening, with a dram of* Tryphera Magna, *made without Opium, nine daies together.*

Quercetanus highly commends this which followeth:

Take *of the Stones of a Ram prepared with Wine and dried, the Matrix of an Hare prepared after the same manner and dried, Mace, Cinnamon, Cloves, white Ginger, Seeds of Ammeos, of each two drams: Saffron a dram and an half: Hazel-nut Kernels, and Pistachios, of each three drams. Beat such of these as require beating, and boyl all in a quart of Muscadine till a third part be consumed. Let her take three or four ounces of this Decoction in a morning three hours before meat, and that three daies together; and upon the fourth let her lie with her Husband.*

The distilled Water following, is likewise very effectual.

Take *of Cinnamon, Cloves, Nutmeg, Mace, of each an ounce: Cubebs, long Pepper, Galangal, Zedoary, Seeds of Ameos, Seseleos, of each half an ounce: Juniper Berries one dram: rich white Wine, Rosemary Water, Marjoram water, Balm water, of each as much as shall suffice. Let them digest together six daies, and then distil them, and give of the stilled Water morning and evening two or three spoonfuls.*

Pena and *Lobellius* propound as a Secret not to be communicated to any living Creature, the distilled Oyl of the smaller, and more delicate sort of sweet Marjoram, mingled with the Runnet of an Hare, and a little Musk, to facilitate Conception.

If a woman upon the fourth day of her monthly Purgations, shall drink about half a pint of the Juyce of Sage with a little Salt, and a quarter of an hour after submit her self to the Genial Embracements of her Husband, many grave men affirm, she will undoubtedly conceive. With which Medicine, *Aetius* testifies that the Ægyptian Women after a great mortality by Pestilence, had abundance of Children.

To the foresaid internal Medicaments, external Medicaments must be joyned. In the use whereof, it is diligently to be observed, that before we go about to dry, bind, and corroborate the womb, that the filth contained in the Cavity thereof be first drawn away and purged, lest it either flow back into the noble parts of the Body, or be more affixed to the substance of the Womb. First therefore such things must be given as purge the womb, after this manner compounded:

Take *Diaphœnicon and Hiera Picra, of each half an ounce: Turpentine and Honey of Mercury, of each one ounce: Castoreum a dram. Mix all, and according to art bring them to such a constitution as shall be fit to make Pessaries, to put into the Womb.* Or,

Take *of Hiera Picra half an ounce; Agarick trochiscated and poudered, Orice Roots of Florence, of each one dram: old Mithridate, and Diaphœnicon, of each two drams. With Juyce of Mercury, make a Pessary. Roul it in a cloth, put it up when she goes to bed, and let her keep it two or three hours.*

If the Womb be very full of Excrements, a more strong Pessary must be put in, after this following Injection.

Take *Leaves of Wormwood, Mugwort, Mercury, and Rue, of each one handful and an half: Pulp of Coloquintida ten grains: Agarick trochiscated half a dram: Ginger and Myrrh, of each a scruple. Boyl all in water and white wine to a pint, wherein dissolve two ounces of Honey of Roses. Let three ounces of this Liquor be injected into the Womb for three daies together, in the morning, and when she goes to bed, after her Courses have done. Then put up this following Pessary.*

Take *Hiera Picra, and Benedict a Laxativa, of each an ounce: the pulp of Coloquintida, and Agarick trochiscated, of each half a dram: Spicknard, Seeds of the Roman Nigella, Savin Leaves poudered, of each a dram: Incorporate them with Honey of Rosemary flowers, and include them in a piece of Silk. Make Pessaries hereof, and put one into her womb, when she is going to bed, and let it bide there two hours, and afterward wash the part with white Wine.*

To strengthen, fasten, and dry the womb, these following Medicaments may be used:

Take *Roots of round Birthwort half an ounce: Lignum Aloes three drams: Cypress Nuts and Roots, of each two drams: Calamus Aromaticus a dram: Dictamnus Creticus, Winter Savory, and Mirrh Leaves, of each one handful: choyce Mirrh, Storax, and Benjamin, of each two drams and an half: Stœchados, Rosemary flowers, and Marjoram, of each one pugil: Boyl*

all

all in a sufficient quantity of strong white Wine. In a pint and an half of the strained Liquor dissolve two drams of Troches of Alipta Moschata, Amber-greece, and Musk, of each seven grains: Civet five grains. Make hereof an Injection into the Womb warm, morning and night for certain daies together.

Before or after the Injection, this following Fumigation may be used:

Take *Troches of Gallia and Alipta Moschata, of each two drams: Storax, Benjamin, and pure Ladanum, of each half an ounce: Lignum Aloes, and Lignum Rhodium, of each one dram: Nigella Seeds, Cubebs, and Cloves, of each four scruples: Amber, and Tacamahacca, of each one dram and an half: Mace half a dram. Make of all a Pouder, of which with Orange-flower water, wherein Gum Tragacanth is dissolved, make little Cakes or Troches: of which, let one or two be laid upon burning coals, and let the smoak be received by a Funnel into the Patients Womb.*

The poorer sort may be smoaked with Mirrh, Frankincense, Lignum Aloes, Storax, Benjamin, Cinnamon, and Cloves, of each a like quantity. After the Injection and Fumigation, let the following Pessary be put up.

Take *Frankincense, Mastich, of each two drams: Troches of Gallia and Alipta Moschata, of each four scruples: Bistort Roots, Cypress nuts, Shavings of Ivory, and red Roses, of each one dram: Styrax, Benjamin, and Ladanum, of each two scruples: Calamus Aromaticus, and Cypress Roots, of each half a dram. Make them into a Paste with Orange-flower Water: then with thin linnen cloth, make two Pessaries of sufficient greatness; one of which put up when she goes to bed, anointing the top thereof with a little Oyl of Nutmegs and Civet mingled together.*

It is furthermore related of Garden Garlick, That if it be beaten with Oyl of Spike, and thrust into a piece of Linnen made like a Pudding-bag, and so put up far within the Womb, that it powerfully brings down the Courses being stopt, and wonderfully delights the womb, and purgeth it: so that hereby, many have been brought to conceive Children, who for a long time had been past all hope of ever having any.

Before the strengthening Injections and Fumigation, a Bath to sit in may be used for an hour together, before the Patient goes to bed; and it may be thus prepared.

Take *Roots of Briony, Master-wort, Valerian, Orice, Enula Campana, of each three ounces: Leaves of Marjoram, Mugwort, Nep, Penyroyal, Mercury, Sage, Bay, of each four handfuls: Bay-berries, and Juniper Berries, of each an ounce: Boyl all, and make thereof a Bath for the Patient to sit in.*

As for total Baths, such as arise from Brimstony and Bituminous Mines, are most excellent; and very many women in this Condition, do flock unto such Baths, as to a Sanctuary.

After Bathing and Fumigation, the Share, and the space between the Privities and Fundament, must be anointed with this following Oyntment:

Take *Oleum Nardinum, & Moschatellinum, of each an ounce and an half: Oleum Cheirinum half an ounce: Pouders Diambræ, and Diamoschi, of each one dram an half: Liquid Storax one dram: Civet ten grains: Musk, Amber-greece, of each six grains: a little white Wax. Mix all, and make them into an Oyntment: Wherewith let the parts aforesaid be anointed. Within let her be nointed with Civet, or Indian natural Balsom. Or let the Man smear his Yard with Civet immediately before he joyn himself.*

Finally, Let Plaisters be applied to the Share, and to the Loyns, which let her wear continually, or at least every night, until the last week, in which her Courses are wont to flow. Let them be made after this manner:

Take *of the Rowl of Emplastrum pro Matrice four ounces: Of the Rowl of Emplastrum de Mastiche two ounces: Tacamahacca, and Caranna, of each one ounce: Pouder of Tormentil and Bistort Roots, of each three ounces: Pouder of* Mirtle *two drams: Pouder of Aromaticum Rosatum four scruples: Soften them with Oyl of Quinces, adding thereto a dram of Oyl of Nutmegs. Spread it upon Leather, and shape two Plaisters, the one round to be applied to the Share; the other square for the Loyns of the Patient.*

Chap. 16. *Of Acute and Chronical Diseases of Women with Child.*

THe Acute and Chronical Diseases of women with Child are the same in Essence or Nature, and have the same signs, with the like Diseases in women not with Child, or in men; wherefore it is needless in this place, to speculate thereupon, let the Reader please to look for them in their proper Chapters.

But

But the Prognostick of these Diseases is not the same; because in women with Child they are far more dangerous, and very often times mortal. So saith *Hippocrates* in Aphor. 31. Sect. 5. For a Woman with Child to be seized by an acute disease, is deadly. For if the Disease have a Feaver joyned with it, there is a two-fold danger attending the same (as *Galen* shews in his Commentary upon this Aphorism) one from the Feaver, which will kil the Child; another from the slender diet which is requisite to the Cure of the Feaver, but is not sufficient to nourish the Infant in the Womb. Or if it be an acute Disease without a Feaver, as the Falling-sickness, Apoplexy, Universal Convulsion of the whol Body, the Mother and Infant cannot withstand the violence of the Disease, neither can they bear such strong Medicines as are requisite to the Cure of those Diseases. Yet we must know that this Prognostick is not perpetually true. For we know by the Testimonies and Examples in Authors, and by dayly Experience, That many women with Child having acute Diseases, escape with their lives.

But Chronical or lingering Diseases, as Intermitting Agues, Catarrhs, Tenesmus, &c. do threaten Abortion, and if they cause it not, they can hardly be cured before the woman be brought to bed, but do keep her company till she lie down.

Diseases Acute and Chronical in the first and last months, are more dangerous, than in the intermediate months. For in the first months, the bands wherewith the Infant is fastened to the Womb are weak, so as they may easily be broken, and the tender Infant is more easily over prest with those preternatural Causes. But in the last months, namely, the sixth, seventh, and eighth, the Child being grown greater, requires much nourishment, which in these Diseases it is deprived of. Also the foresaid bands do not stick so fast as in the third, fourth, and fifth months, in which there is less danger of Abortion. Therefore *Galen* doth excellently compare the Child in the Womb to Fruits hanging on a Tree, which upon their first growing out have very tender stalks, so that they may be easily shaken off with the wind, or any other violent commotion; and when they are neer ripe, they hang not so fast upon the bough, as in the intermediate spaces they did.

Likewise the Cure of the foresaid Diseases in women with child doth remarkably differ, as touching their Diet, and those two grand Remedies, Blood-letting and Purging; whereunto we may ad Medicaments which evacuate by other wayes, viz. Such as move the Courses, Piss-drivers, and Sweat-drivers, because it is feared left by these evacuations, abortion may be caused: of these therefore we shall only treat at present, referring what else belongs to the Cure of these Diseases, to the proper Chapters, where such respective Diseases are handled.

As for Matter of Diet, it is not to women with Child in Acute Diseases to be enjoyned so spare, left the little Infant be famished; neither is it to be allowed so liberal, that the Feaver should be thereby strengthened; but we must steer a middle course, with this Caution, That in the first months of their Belly-burden, a thin Diet be enjoyned, and in the latter somwhat more solid and plentiful, because the Child doth then stand in need of more nourishment. Yet if there must needs be some error in Diet, it is better to err in keeping too full, than too slender diet; for recovery is chiefly to be expected from the strength of the Mother, and the Child.

Touching Bleeding, that Aphorism of *Hippocrates*, viz. the 31. of Sect. 5. is presently brought in opposition, where he saies, *If a woman with child be let blood, she miscarries, especially if the child be grown.* And *Galen* renders the Reason in his Comment, Because the Blood being let out, the Infant wants its nourishment, whence follows Abortion. On the other side, daily Experience shews, That in very many Diseases of big-bellyed women, especially acute diseases, as the Pleurisie, Inflamation of the Lungs, continual Feavers, and such like, blood-letting is necessary, and may be administred, not only in the first, but also in the middle months, and sometimes in the last months of a womans Belly-bearing. Which if it be omitted, both Mother and Child are in great danger of death. And to this latter Opinion the Elder Physitians assent, not dissenting from the Mind of *Galen* and *Hippocrates*, by so doing. For therefore it is they held a woman would miscarry, if being with Child, she were let blood, because blood being taken away, the Child would want its Nourishment. So that if blood may so be taken away, as that the Infant shall not want its Nourishment, there wil be no danger of Abortion thereby.

Now so the case may stand: As first, In the first Months of a Womans Belly-bearing, while the Infant in the womb is little, and wants but little Nourishment, for then its Nourishment by bleeding will not be drawn away, especially if certain signs of superfluity of blood be apparent in the Mother. So that from the first month to the fift blood-letting, may be safely practised. But in the middle and last Months, greater circumspection is to be used, because the Child being greater, and wanting more Nourishment, cannot so safely admit of Phlebotomy. Howbeit, if the Woman abound with blood, and a smal quantity be taken away, she may safely be let blood, because hereby the Disease will be allaied; neither wil so much Nutriment be thereby withdrawn from the Child, as to cause Abortion. But if it seem that *Hippocrates* thought otherwise, let us consider that we let blood after a far other fashion than the Antients did, they let blood by pounds, and we by ounces. The very truth is, there

is no better way to preſerve women from Abortion, than by blood-letting, when it ſprings from over-much blood ſtrangling the Infant, and overwhelming the ſame, in ſuch women as have been accuſtomed out of their time of being with child to have a plentiful flux of Courſes for divers daies together. Thus *Petrus Salius Diverſus* in the 22. Chapter of his Book of particular Diſeaſes: *I for my part proteſt* (quoth he) *that I have preſerved many women from Abortion, which they had often ſuffered, only by letting them blood in the firſt months of their being big. Neither would I have it thought, that no other kind of blood-letting may be practiſed in childing women, ſave that which is ſparing or moderate. For ſomtimes plentiful bleeding in the laſt month hath done very much good. And I have ſomtimes experienced this plentiful Blood-letting in the laſt month, when the women with Child were afflicted with a burning Feaver, and were full of Blood hoping thereby an abatement of the Feaver, and an haſtening of the Birth, both which I obtain'd by blood-letting, and ſaved both child and mother in danger of death, by this only Remedy. Which being in ſome Patients omitted, and neglected by Phyſitians, minding more the words of* Hippocrates, *than the matter it ſelf, hath been the cauſe that both child and mother hath miſerably periſhed, being ſtrangled by the plenty and fervency of blood.* So far *Salius*. *Amatus Luſitanus*, in the 57. Cure of his 1. Section, let a woman with child of eighteen yeers of age, blood, in the ſixth month, four times with happy ſucceſs, ſhe being in a burning Feaver. And *Rodericus a Caſtro* in his third Book of Womens Diſeaſes, Chap. 21. writes, that he let a woman of *Liſbon* blood, who had a Pleuriſie in the eight month, and was given over for deſperate by other Phyſitians, four times and no leſs one after another, and ſhe recovered, and had a healthy Boy. And to conclude, If I may freely relate ſomwhat from mine own Experience, I will ſet down the following Hiſtory, which is a rare one, and worthy to be regarded. *The Wife of* John Vicules, *Citizen of* Montpelier, *had three miſcarriages one after another at ſeveral times of her being with child: When ſhe was the fourth time with Child, about the end of the ſecond month, ſhe was taken with the ſame pains of her Belly and Loyns, which had been the uſual fore-runners of her former miſcarriages. I being called to her, and conſidering ſhe was a Sanguine Woman, and full of Blood, preſently cauſed four ounces of blood to be taken from her; and within half an hour the foreſaid pains quite ceaſed, and the Woman was ſo well that ſhe would not uſe thoſe other Medicines which I preſcribed for her to prevent Abortion.* Now thoſe Symptomes appeared in the ſelf ſame time, wherein ſhe was wont to have her Courſes, when ſhe was not with Child. Again in the third month of her being with Child, at the ſame period of time, the ſame Symptomes return upon her: She ſending for me, deſires I would order her to be let blood, ſeeing the month preceding ſhe had found ſo ſudden help thereby. I conſent, and ſhe is again let Blood, with like good ſucceſs as before. In like manner in her fourth, fifth, ſixth, ſeventh, and eighth months the ſame Symptomes returning, in their juſt diſtances of time, ſhe was again let Blood and preſently recovered. The laſt of her bleedings was but eight daies before the beginning of her ninth month, with like profit as before; and about the end of the ninth month the ſaid woman brought forth a living Male-child and Luſty.

Yet I would not have a young Phyſitian moved with theſe examples be too bold in letting women Blood in their laſt months of being with Child. But the Nature of the Diſeaſes and of the women muſt be diligently conſidered, that Medicaments may be conveniently ſuited thereunto. Allwaies remembring that ſins of omiſſion are lighter than ſins of commiſſion, and that it is better in a doubtfull caſe to fall ſhort, than to outpaſs the due and fitting bounds. Yet when he finds the evident indications of Blood-letting, let him boldly draw Blood, firſt enforming the by-ſtanders or friends of the ſick, that there is more danger of abortion, and of the death of Infant and Mother from the Cruelty of the diſeaſe, than from Blood-letting: and allwaies remembring that but little Blood be taken away, that the Child may not miſs of its nouriſhment. And if plenty of Blood require a larger quantity to be taken away, let it be done at divers times and not all at once.

Wherefore the foreſaid Aphoriſm of *Hippocrates* does not abſolutely forbid the opening of a vein, but only warnes that Phyſitians be wary what they do in that kind. Which is elegantly delivered by *Cornelius Celſus* in the 10. Chapter of his 2 Book, in theſe words. *The Antients did judg that young and old people could not bear Blood-letting. And they perſwaded themſelves that a woman with Child, let Blood would miſcarry. But experience hath ſince taught us, that theſe are no generall Rules, and there are other conſiderations of more weight, which the Practitioner is to regard. For it matters not of what Age the Patient is, nor what ſhe hath in her Body, but what her ſtrength is. So that if a young man be weak, or a woman not with Child be weak, Blood is ill taken from them, for the remaining ſtrength dies, and they periſh. But a ſtrong Child, and a ſtrong old man, and a woman with Child that is luſty, are ſafely cured by bleeding.* So for *Celſus*. Some latter Phyſitians have dared to open the lower veins in women with Child, to Cure the Falling-ſickneſs by conſent of the Womb, the venerial and peſtilential Bubo, yea, and to prevent abortion, as we may ſee in *Zacutus Luſitanus* in his Book of Wonderful Cures Obſ. 23. Book. 1. and Obſ. 130 and 151 of Book 2. Who by his own and other mens

experiments

experiments endeavours to prove, that such Blood-letting may be safely practised. Which I leave to prudent Physitians to consider of.

We said about the beginning of this Chapter, that there is no difference in Curing the diseases of women with Child, saving with respect to the greater remedies; which difference must be in them thus determined, *viz.* That the diseases which hold women not with Child, as vomiting, want of appetite and the like; in them being not with Child, they are to be Cured rather by vomiting than by Blood-letting, because they come from evil humors abounding in the stomach and the whol Body; but in women with Child, they need rather Blood-letting, because they Spring from Blood retained in in the very beginning of their being with Child. And experience hath taught that the vomiting, which is wont often to trouble women with Child, is in the first months of Childing exasperated by purges; but by bleeding much abated, yea and wholly taken away, if the Blood-letting be iterated every month till the symptom cease.

The use of Purging in women with Child *Hippocrates* hath defined in Aphor. 1. Sect. 4. Women with Child (saith he) are to be purged if the humor offending do work in the fourth month and to the seventh, But these about the seventh less. And we must take heed what we do when the Child is very young, or old. *Galen* in his Comment saies that there is the same proportion between a Child in the Womb and fruit upon the true. For fruit when it first grows upon the bough, it is held by a very tender stalk, and therefore quickly falls, being shaken by a vehement wind. afterwards when they are grown greater, they are not easily separated from the boughs. And yet when they are fully ripe they fall off of their own accord. In the same manner women suffer abortion in the first and last months, because in them the Child is not so fast tied to the Womb. But in this Age of ours, purges are wont to be given to women with Child in all the months (very neer) of their being with Child in diseases springing from the tyranny of humors & excrements vitiated, when the matter is in motion and works, or when it is concocted: so often as there is more danger feared from the evil humor causing the disease, than from the commotion raised by the purging Medicaments. Gentle and harmless Medicaments have made Physitians bolder in this kind, such I mean as we use at this day, as Rhubarb, Myrobalans, Cassia, Manna, Senna, Agarick and the like. But we must allwaies remember that saying of *Hippocrates*; and we must more freely give purges in the middle months and more warily in the first and last. Also the use of Pills is ever more suspected in women with Child; both because they make a greater commotion in the Body, and also by reason of the Aloes, which by reason of the extream bitterness is an enemy to the Child, and is thought to open the mouths of the veines. But if sometimes the use thereof seems necessary, in some grevious infirmities of the stomach, which are wont frequently to infest women with Child the first months of their being with Child bearing, let it be carefully washed with Rose-water, that the acrimony thereof may be taken away; or let it be mixt with strengthening and astringent things, as Rhubarb, Mastich and such like.

Clysters are not very safe, because by compressing the Womb they may cause abortion. So that when there is need of them, and in women accustomed to that kind of evacuation, they must be made in less quantity, and of such things as are rather mollfying and lenefying than much purging.

In a word, touching Sweat-drivers, Piss-drivers, and such things as move the Courses, our Opinion is, That Movers of the Courses properly so called are never to be used in women with Child. And Piss-drivers because they likewise are apt to bring down the Courses, ought to be suspected; and if the necessity of some disease require the use of them, the gentler must be made choice of. And finally, Sweat-drivers may be safely given, because they drive the humors out, by the habit of the Body, whereby no danger of abortion is incurred, in so much that some women in the middle of their being with Child, have bin Cured of the whores Pox, without harm to their Child.

Chap. 17. *Of Abortion or Miscarriage.*

Abortion or Miscarriage is the bringing forth of an imperfect or unripe Child. And consequently a child dead in the Womb, is not counted an Abortion, till it be excluded. So that whether alive or dead Child be brought fourth, not being ripe, nor having attained to the just term of growth which it ought to have had in the Womb, it is to be termed an Abortion, or Miscarried Child.

The Causes of Abortion are some internal some external. The internal may be reduced to four heads, viz. to the Humors, to the Child, to the Womb, and to the Mothers diseases.

The humors may cause Abortion while they offend in quantity or in quality.

They offend in Quantity either by way of excess or of Defect.

Humors offending by way of excess are seen in a Plethorick or over-full Constitution of Body; for Blood being more plenty full than is requisite to Nourish the Infant in the Womb, flowes into the veines of the Womb, and is excluded by way of the monthly Courses, and brings away the Child with it.

Defect

Defect of Humor fitting to Nouriſh, ſprings from ſuch Cauſes, which are able to draw the Nouriſhment from the Child, as faſting, whether voluntary or forced; as when women with Child loath all kind of Meat, or vomit it up again; a thin diet in acute diſeaſes, immoderate bleeding by the Noſe, Hæmorrhoides, Womb, or by immoderate Phlebotomy. Whereupon *Hippocrates* in Aphor. 34. Sect. 5. If a woman with Child go very much to ſtool, it is to be feared that ſhe will Miſcarry. Hereunto may be referred extream leanneſs of the whol body, wherein there is not Blood enough to nouriſh the Infant. Of which, *Hippocrates* in Aphor. 44. Sect. 5. Speakes thus. *Women with Child being very lean, not by nature, but accident, as famin, long-ſickness &c. they Miſcarry, untill they get their fleſh again.*

In reſpect of the Child, Abortion may happen, if it be over great, ſo that it cannot by reaſon of its bulk be contained in the Womb; hence it falls often out that little Women miſcarry eſpecially if they be married to Men Bigger than ordinary whoſe Children grow very great, and find not in the Womb place large enough to contain them, till they come to their perfect growth. Which made *Hippocartes* ſay In his Book of ſuperfœtation. *If any Woman conceive frequently, and do duly and at a certain period of time Miſcarry, as in her ſecond, third, or fourth month, or later: the narrowneſs of her Womb is in fault, which is not able to contain the Child as it grows great.* Alſo plurality of Children may cauſe abortion, as when two or three or more are contained in the Womb at one time; for then the Womb overloaden excludes the Children before the fit time: which is the cauſe that Women often Miſcarry of twinns. Alſo the dead Child is to be reckoned among the cauſes of Abortion: for as ſoon as the Child is dead; Nature doth forthwith ſet her ſelf to caſt it forth.

Abortion happens in reſpect of the Womb it ſelf, if it be not of largneſs and capacity enough, ſufficiently to widen it ſelf according as the Child grows, as was ſhewed above out of *Hippocrates*. As alſo if there be any thing preternatural in the Womb, as an Inflamation, a Scirrhous Tumor, an Impoſtume and very many diſeaſes beſides. And finally if the Womb be overmoiſt and ſlack, that it cannot contain the Child ſo well as it ought to do.

In reſpect of the Mothers diſeaſes, Abortion comes two waies. Firſt of all, when as her diſeaſes are communicated to the Child, whereby it is killed, or ſo weakened that it cannot receive due nouriſhment nor growth; ſuch as are continual and intermitting feavers, the Whores-Pocks and many ſuch like. Secondly, when the ſaid diſeaſes of the Mother, do cauſe great evacuations or great commotions of the body, as large Bleedings, from what part of the Body ſoever, fluxes of the Belly, grievous Swoonings, Falling-ſickneſs, Vomiting, and *Tenesmus* [that is perpetual going to the ſtool and voiding nothing but a little ſlime] which above all other diſeaſes is wont to cauſe Abortion, becauſe by that frequent and almoſt continual endeavour of going to ſtool, which perpetually attends this diſeaſe, the Muſcles of the Belly are perpetually contracted, and do more compreſs the Womb than the ſtreight Gutt upon which the Womb reſts; which continual compreſſion or ſqueezing of the Womb, doth at laſt cauſe Abortion.

External cauſes which further Abortion, do ſome of them kill the Child, others draw away its nouriſhment, and others diſſolve thoſe bands wherewith the Child is faſtened to the Womb.

The Child is killed by grievous commotions of mind, as Anger, ſadneſs, Terror &c. meares earneſtly longed for and not obtained, ſtrong purging Medicaments, ſuch things as provoke the Courſes, ſuch things as drive forth the Child; ſuch things as are reckoned by a ſecret property to deſtroy the Child in the Womb; abominable ſmells, eſpecially the ſtink of a Candle ill put out.

The Child is deprived of its nouriſhment, by the Mothers being famiſhed, and by immoderate loſs of her Blood, eſpecially when the Child is big. As *Hippocrates* teaches in the Aphor. 60 Sect. 5.

The bands which faſten the Child to the Womb are looſed by vehement exerciſe, Danceing, Running, Rideing, or Joking in a Coach or Cart; carrying of an heavy weight, or lifting it from the ground, a violent fall and ſquelch, a Blow upon the Belly that mauls the Child, vehement motion of the Belly by coughing, vomiting, looſneſs, neezing, convulſions, crying out, immoderate or over wanton venereal embraces. And in a word, vehement motion of the Armes, by drawing ſomewhat violently to a Body, by turning a wheel, or doing ſome ſuch work, may exceedingly further Abortion or Miſcarriage.

The Signs of preſent Abortion are manifeſt of themſelves. But ſuch as go before Abortion, and progroſticate the ſame, are theſe; An unuſual heavineſs of the Loyns and Hips, a loathneſs to ſtir, Appetite gone, ſhivering and ſhaking coming by fits, pain of the head, eſpecially about the Roots of the Eyes; a ſtraitening of the ſides, and of the Belly above the Navel; the flagging or falling, and extenuation of the Dugs, which made *Hippocrates* to ſay in Aphor. 37. Sect. 5. *If the Dugs of a woman with child do ſuddenly grow ſmall, that woman will miſcarry.* For the extenuation of a womans Dugs in ſuch a caſe, doth ſignifie want of blood in thoſe Veins which are common to the womb, and to the Dugs, by means of which defect, the child is in danger to miſcarry. But if Abortion ſhall

be caused by some external efficient, causing violent agitation of the Child in the Womb, and a bursting of the Vessels, with a pain raised in those parts; the Spirits and Blood run speedily to the genital parts, of which the Dugs being destitute, grow smaller than they were. Furthermore, Plenty of Milk dropping from the Dugs, doth argue a weak Child, and consequently portends Abortion; according to *Hippocrates* in Aphor. 52. Sect. 5. But if frequent pains, and almost continual, do torment the Reins and Loyns, reaching towards the Share as far as *Os sacrum*, with a certain endeavor of going out of the Womb, it is a certain sign of a woman that will shortly miscarry. For those parts do signifie that the Membranes and Ligaments wherewith the child is fastened to the womb are stretched and torn in sunder. And if so be that pure Blood, or such as is wheyish, or water flowing from the Womb, do follow the foresaid pains and endeavors of coming out; it shews that Abortion is hard at hand, and that the Vessels and Membranes of the Womb are broken, and the mouth of the Womb open. At the same time, the situation or posture of the Child is changed; for whereas it lay high and possessed the middle of the Womans Belly like a Sugar-loof bearing out; it is now gathered, round like a Foot-ball, and rolled down towards the Water gate. Also oftentimes there follow grievous Symptomes, as shiverings, tremblings, Palpitations of the Heart, Swoonings, and abundant Bleeding.

Hereunto may be added what *Hippocrates* teacheth us in the second Book of Popular Sicknesses, Text 17. That if after violent external causes, such as are a blow, a fall, and such like, vehement pain, and perturbation arise in a Woman with Child, she suddenly (or at most the same day) miscarries; but if the external cause were weak, the Abortion may be differred till the third day, which being once over, there is no longer danger of Abortion, because such wounds and hurts, are wont to grow well again upon the third, or at most, the fourth day, or very much to be mitigated and asswaged; whereupon the Child is again confirmed in the Womb and retained. Which Precept is of great moment in the Practice of Physick, that women with child being hurt by some external accident, should keep their bed for three daies or longer, and use such Remedies as prevent Abortion.

The Prognosticks of Abortion may be divers, after this manner:

Women are more endangered by Abortion, than by due and timely Child-birth, because it is more violent, and unseasonable; for as in ripe Fruit, the Stalks are loosened from the Boughs, and the Fruit falls of it self; so in a Natural Birth, the Vessels and Ligaments wherewith the Child is tied to the Womb, are loosened and untied as it were of their own accord, which in case of Abortion must needs be violently broken asunder.

Very many women become Barren by their Miscarriages, by reason of those exceeding rendings & tearings which do wholly overthrow the dispositions of the Womb.

Much bleeding accompanied with fainting, raving, and convulsions, is wont to cause death; and *Aretæus* testifies he never saw any escape, who in the time of their Abortion, or afterwards, had Convulsion fits.

Inflamation of the Womb caused by Abortion, is for the most part deadly; for Blood flowing to the Womb in great quantity, is not purged out, but putrefies therein, and regurgitates or flows back into the upper parts; whence arise burning Feavers, pantings of the Heart, Heart-burning, and other Symptomes enumerated before.

Abortion is more dangerous in a woman that never bore Child before, because being unaccustomed to Pains, and having those Passages more strait, she is longer and more vehemently tormented.

Women very lean or very fat, are more endangered by Miscarriage; the former, because of their weakness; the latter, because of the narrowness of those Passages by which the Child must come forth.

Abortion is more dangerous in the sixth, seventh, and eight months, because the Child being the greater, is excluded with the more pain and difficulty.

Women which have a more loose and moist womb than ordinary, do miscarry commonly without danger, especially in the first month; because those parts in such women, do easily give way, whence their pain and trouble is the less.

Hippocrates in the second Book of Popular Sicknesses, affirms, That to miscarry of a male Conception of three-score daies old, helps a Woman whose Courses are stopped, by stopping of Courses, he understands only their imminution, when women are not sufficiently, or conveniently purged, at their monthly seasons; for by such an Abortion or Miscarriage as aforesaid, those stopped passages are opened, and the Blood is drawn towards the womb, which came thither but slowly in former times. Our ordinary women seem to have taken notice, of the truth of this saying of *Hippocrates*. who touching an Abortion of a few months, are wont to say by way of proverb, *A miscarrying woman is half with child again.*

The Cure of Abortion consists in Preservation, for that which is past cannot be helped. But all the Symptomes which follow Abortion, are the same which accompany women duly brought to bed.

The

The Preservation from Abortion hath two principal Points or Heads: The one concerns the woman before she is with child: The other when she is with child.

Before the woman is with child, all evil dispositions of body which are wont to cause Abortion, must be removed: as fulness of blood, badness of Humors, and peculiar Diseases of the womb, viz. Distempers, Swellings, Ulcers, and such like.

Fulness of Blood opens the Veins of the womb, or strangles the Infant while it is in the womb. This if it be a pure and simple Plenitude, may be cured by Blood-letting, such as shall answer the quantity of blood super-abounding.

But badness of Humors, is either chollerick and sharp, so as to open the Orifices of the Veins, or by provoking Nature, to stir up the expulsive faculty, whereby the child comes to be expelled with those evil humors; or by reason of plenty of Excrements heaped together in the first Region, and distending the Belly, it suffocates the child; or it vitiates the blood in the whol habit of the Body, rendring it unfit to nourish the child, or it fills the Vessels of the womb which retain the child, full of slime and snot.

This Badness of Humors may likewise be holpen by blood-letting, but it must be in a lesser quantity, seeing the principal scope of the Cure, is by frequent Purgations, to take away the superfluous Excrements of the Body. And in the spaces between Purge and Purge, such things must be used, as help the distemper of the Bowels, mitigate the sharpness of Humors if there be any, or thicken the said Humors, in case they be too thin. Or if flegmatick Humors are too rife, they must be discussed by Sweat-drivers, Piss-drivers, and other Remedies. Howbeit we must diligently observe, that whatever ill humor abounds, Issues are wonderful profitable to prevent Abortion: of which *Zacutus Lusitanus* gives a special note, in these words: *By most happy Experiments I have observed, That frequent Abortion caused by corrupted Humors which flow from the whol Body to the Womb, and by their evil disposition or abundance do kill the child, is hereby as by a most present help prevented. Many women did miscarry upon this very account, among which some having often times brought forth a Child of seven months or four months growth, but torn and putrefied, could by no other means be freed from so great a Calamity, save by Issues made in their Arms and Thighs, which were alwaies made at the beginning of the fluxion; by which means they went out their time, and brought forth Children healthy, and not defiled with any Infection.*

The peculiar Diseases of the Womb, as over great Moisture, Swellings, Ulcers, and such like must be cured by their proper Remedies described in the Chapters which treat of them.

In women with Child, if the same Causes be present as in other women, the difficulty is yet greater, because big-bellied women cannot so easily bear all kind of Remedies. Yet, lest being destitute of all help, they should remain in extream danger of Miscarriage and Death, some kind of Remedies are to be used.

In case therefore the Patient be too full of blood, she must have a Vein opened, though with child, especially in the first months; and that the second and third time, if need be. Alwaies remembring that there never be much blood taken away at a time. Of which kind of bleeding we have discoursed more at large, in the foregoing Cure.

And when there is an abundance of some very bad Humors, gentle Purgations must be reiterated, especially in the middle months of a womans being with Child. And if a moist, rheumatick, snotty, or windy distemper do annoy the Patient, we may sometimes proceed to a Sudorifick Diet, at least a gentle one, in the stronger sort of women.

Mean while, in the whol course of being with child, astringent and strengthening Medicaments are to be used, such as have a vertue to hinder Abortion. Many of which have been described in our Chapter of immoderate flux of Courses; whereunto these following may profitably be added.

Take of *Kermes, and Tormentil Roots, of each three drams: Mastich one dram and an half. Make all into a Pouder, of which give the Patient half a dram at certain distances of time, or as much as may be taken up upon the point of a knife.* Or,

Take *red Coral two drams: Kermes berries, Date Stones, of each one dram: Shavings of Ivory half a dram: Pearls not bored through, a scruple. Make of all a Pouder.*

Or let her swallow every day certain grains of Mastich in the morning.

Our ordinary women do frequently use Plantane Seed, which they take in the morning about the quantity of half a dram, with Wine and Water or in an Egg, or Broth, or by it self, almost every day, the whol time of their being with Child, and that not in vain.

To the same purpose very effectual Electuaries are compounded, according to this following Example:

Take *Conserve of Roses two ounces: Citron-peels candied six drams: Myrobalans candied, Pulp of Dates, of each half an ounce: Coral prepared, Pearls prepared, and Shavings of Ivory, of each a dram. With Syrup of Quinces, make all into an Opiate, of which let the Patient take often the quantity of a Chestnut.*

If a Liquid form shall be more desired, a Decoction of Tormentil Roots, sweetened with Conserve of Roses, may profitably be given.

The following Lozenges are very good; for they strengthen, and do by little and little free the Body from Excrements, though sometimes they do not visibly purge.

Take *Mace, the three sorts of Sanders, Rhubarb, Senna, Corals, Pearls, of each a scruple: Sugar dissolved in Rose-water, four ounces. Make all into Lozenges, weighing three drams apiece. Let her take one twice a week by it self, or dissolved in a little Broth.*

Outwardly Oyntments and Plaisters are to be applied, made after this manner:

Take *Ship-pitch half an ounce: Frankincense an ounce: Mastich half an ounce: Dragons Blood and red Roses, of each two drams. Make all into a Cerate or Plaister.* Or,

Take *Oyl of Myrtles, and Mastich, of each an ounce: red Sanders and yellow, Hypocistis, Acacia, of each half an ounce: Spodium, red Roses, of each two drams: Bole Armoniack, Terra Sigillata, Shavings of Ivory, of each two scruples: Turpentine washed in Plantane Water an ounce: Wax as much as shall suffice. Make all into a Cerate or Plaister; spread it upon a Cloth, and apply it to the Reins.*

Plaisters are compounded of the Mass of *Emplastrum pro Matrice*, and *Emplastrum contra Rupturam*, to be applied to the Region of the Share, and of the Loyns. Or after this manner following:

Take of *the Mass or Rowl of* Emplastrum pro Matrice *three ounces: Bistort Roots, Acacia, Hypocistis, Pomegranate peels, of each half an ounce: Ladanum six drams. Moisten and soften them with Juyce of Quinces, and make a Rowl of Plaister for the use aforesaid.*

Concerning Plaisters it is to be observed, That they must not be worn long together, but taken off ever and anon; otherwise, if they stick too long upon the Back, they do so heat the Kidneys, that the poor women are sometimes troubled with sharpness of Urine, or do sometimes piss Sand, Stones, yea and Blood it self.

Neither must we omit such things which are accounted by a secret property of their Nature to retain a Child in the womb; as an Ægle-stone worn about the Neck, a Load-stone applied to the Navel, Corals, Jaspers, Smaragds, Bones found in the Hearts of Stags, and such like, worn under the Arm-pits, or hanged about the Neck.

Zacutus Lusitanus in Obs. 152. of the Second Book of wonderful Cures, commends a Girdle made of the Hide of a Sea-horse; and if that be not to be had, he saith a Wolfs Skin may profitably be used instead thereof.

And that the success of these Medicaments may be happy, the Patient must be enjoyned to rest and keep her self as quiet as possibly she can, both in her Body and Mind; also to abstain from Genial Embracements, which do vehemently towze and disquiet the Womb. For while the Womb opens it self to comprehend the Mans Sperm, with which it is exceedingly delighted, it drives forwards the lately conceived Child, not yet throughly fastened in the womb.

But if notwithstanding the Medicines aforesaid, by reason of the vehemency of the Cause, whether it be internal or external, the Patient be ready to Miscarry, we must apply our selves to do the best we can, with these following Remedies. And in the first place, so soon as pains and throws shall be perceived in the lower part of the Patients Belly towards her Share, in her Loyns, and about the *Os sacrum*, we must seek to allay and stop them, both by things given in, and outwardly applied, according to the variety of Causes. For if Abortion be provoked by Crudities and Winds (which is most usual when it begins from an Internal Cause) a Pouder must be given, compounded of *Aromaticum Rosatum*, and Coriander Seeds: Yea, we may give of the *Aqua Imperialis*, if the quantity of flegm and wind be very great.

At the same time let Carminative, or Fart-forcing Medicaments be applied below the Patients Navel: such are, bags of Annis seed, Fennel seed, Fœnugreek seed, Flowers of Chamomel, Elder, Rosemary, and Stœchados mingled together; Or a Rose Cake fried in a Pan with rich Canary, and sprinkled with Pouder of Nutmeg and Coriander, or the Caul of a Wether newly killed, or his Lungs laid on warm.

If with these means the pains cease not, let a Clyster be cast in, made of Wine and Oyl, wherein two drams of *Philonium Romanum* may be dissolved, or Narcoticks may be given inwardly in a smaller Dose, to allay the violence of Humors and Winds, as we are wont to do in pains of the Chollick.

But if by reason of contumacious pains that will not be asswaged, or of the violence of some external cause, blood begin to come away, Revelling Medicines are to be applied, to withdraw the course of the blood from the Womb: such are, Rubbings of the uper parts and painful bindings; also Cupping-Glasses fastened to the Shoulder-blades, under the Dugs, and under the short Ribs on both sides. Yea, and if the Woman be ful of Blood, it will not be amiss to take some blood from her, both when she begins to void blood, and especially before it begins to come; and the blood must be taken away at several times, a little at once.

And

And if all this will not ſuffice, but the Flux of blood continues, we muſt proceed to aſtringent and thickening Diet, and Medicaments; and ſo the Pouders and Electuaries formerly deſcribed, may be adminiſtred. Alſo Juyce of Plantane new drawn, and Syrup of Poppies to the quantity of an ounce, with Pouder of Bole-Armoniack, or Dragons-blood.

Alſo outwardly may be uſed Fomentations binding and ſtrengthening, made of Pomegranate peels, Cypreſs Nuts, Acorn Cups, Balauſtians, Grape-ſtones, and ſuch like things boyled in Smiths water, and red Wine.

Or a little Bag full of red Roſe Leaves and Balauſtians, may be boyled and applied hot to the Patients Belly.

Hereunto may be added the forefaid Plaiſters and Cerecloaths: Or for to cauſe the more aſtriction, make a Cataplaſm of aſtringent Pouders, with Turpentine, and the whites of Eggs, which muſt be ſpread upon Tow, or courſe Flax, and applied to the Navel and the Reins warm. The Tow which ſhall be applied to the Navel, muſt be moiſtened with Wine; that which is to be applied to the Kidneys, in Vinegar.

The two following Medicaments are accounted for Secrets, and it is beleeved they will certainly hold the Child in the Womb, if they be uſed before it be looſened from the Wombs Veſſels.

Take *twelve Leaves of Gold: Spodium a dram: the Cocks Treading of three Eggs that are not adle. Mix all very well, till the Gold be broken into ſmal Atomes. Afterwards diſſolve them in a draught of white Wine, and give it to drink three mornings together.*

At the ſame time let the following Cataplaſm be laid on.

Take *male Frankincenſe poudered two ounces: five whites of Eggs: Let them be ſtirred about together over hot coals, alwaies ſtirring them that they may not clodder together: add Turpentine to make them ſtick. Then ſpread it upon Parcels of Tow, which lay upon her Navel as hot as ſhe can poſſibly endure them, twice a day, morning and evening, on the three daies aforeſaid.*

Chap. 18. *Of Hard Child-birth.*

HArd Travel in Child-bearing, is ſuch as keeps not the due and ordinary Laws of Nature, taking up longer time than ordinary, and accompanied with more vehement pains than are uſual, and other more grievous Symptomes.

Divers cauſes hereof may be aſſigned both internal and external. The internal depend either of the Mother, or the Womb, or of the Child.

In reſpect of the Mother, Travel with child may become ſore and hard, by the weakneſs of her Body, either Natural, or in regard of Age, as in very yong and very antient women, or in regard of Diſeases wherewith the woman was troubled during the time of her going with Child, or is ſtill troubled. Hereunto alſo Leanneſs, and over great drineſs of the whol body, may be added; as alſo over fatneſs, and groſsneſs compreſſing and ſtraitening the paſſages of the womb; ill ſhape of ſuch bones as border upon, and embrace the womb, as in ſuch as limp, wind ſtretching the Guts; ſtone or preternatural tumor poſſeſſing the bladder, and preſſing the Womb; and the ill conſtitution of the Lungs, and other parts ſerving for Reſpiration, becauſe holding the Breath is very neceſſary to exclude the Child.

In reſpect of the Womb, divers Diſeaſes thereof may cauſe a ſore Labor, as Swellings, Ulcers, Obſtructions, Aſtrictions, Stoppages ariſing from preternatural Cauſes.

In reſpect of the Child, Hard Travel is cauſed, when there is ſome fault therein, in reſpect of its ſubſtance, its quantity, its figure, and certain things thereunto belonging.

The Child is faulty in regard of Subſtance, when it is dead or putrefied, or ſome waies infected, or weakened with ſome Diſeaſe, ſo that it hath no ability to contribute to its own excluſion.

In regard of Quantity likewiſe, the Child doth not further its own Birth, which is either diſcrete or ſevered quantity, or concrete and joyned; the former is called Number, the latter Magnitude. In regard therefore of continued quantity, the child is faulty, if the Body or Head of it be over great; which makes the Birth thereof become difficult and laboriom; in regard of the disjoyned quantity of the child or burden, Labor becomes difficult, as when there are more than one in the womb; ſo the Birth of Twins is more painful than of a ſingle Child, for the moſt part.

In reſpect of the Figure, or Scituation of the Child in the Womb difficult Travel happens many waies; as when the Child endeavors to come forth with its feet or its hands foremoſt, or puts out one hand only, or one foot; or when it endeavors to come forth doubled, with its breech, or its belly foremoſt.

In regard of the Childs Adjuncts or certain things belonging to the Child, difficulty of Travail happens, when those membranes which encloſe the Child are more thin than ordinary ſo that they come to break, ſooner than they ſhould; whence followed an over quick effuſion of the waters conteined therein, whereupon the mouth of the Womb remaines dry at the time of the excluſion of the Infant; or where the foreſaid Membranes, are more thick and compact than ordinary, by which means, the Child is hardly able to breake them.

External Cauſes depend upon things neceſſary and things contingent, the things neceſſary are ſuch as Phyſitians commonly call *res non naturales*, things not natural. So a cold and dry air, and the Northern-wind are very hurtfull to women in travail, becauſe they ſtraiten the whol Body, drive the Blood and ſpirits inwards, and prove very deſtructive to the Infant coming forth of ſo warm a place as the Womb. Alſo air more hot than ordinary diſſipates the ſpirits and exhauſts the ſtrength both of Mother and Child, eaſily introduceing a feaveriſh Inflammation into a Body repleniſhed with ill humors, and exagitated.

Meates raw and hard to digeſt, or of an aſtringent quality, taken in a large Quantity before the time of travail, may render the ſame laborious, the ſtomach being weakened and the common paſſages ſtopped, which in this caſe ought to be very free and open.

Sleepyneſs and Sottiſheſs do ſlacken the endeavours both of the Mother and the Child, and ſhew nature to be weak.

Unſeaſonable ſtirring of the woman doth much delay the Birth of the Child, whenas ſhe refuſes to ſtand, to walk, lie down, or to ſit upon the Midwifes ſtoole, as need ſhall require; or when ſhe is unduely agitated to and fro; whence it comes to paſs that the Child cannot Iſſue in a fitting poſture, or looſes the good poſture it had, by reaſon of the Mothers undue and diſorderly moveing her ſelf.

The retention of Excrements at the time of Travail, as of Urin diſtending the Bladder of hard excrements in the ſtreight Gutt; and hemorrhoids much Swelled, do ſtraiten the neck of the Womb, and divert nature from her endeavour of expelling the Child.

And in a word, vehement Paſſions of mind, as Fear, Sadneſs, Anger, may very much encreaſe the difficulty of Child birth.

To things contingent are referred Blowes, Falls, wounds, which may very much hinder the Birth: hereunto likewiſe appertain the parties aſſiſtant in time of travail to help the labouring woman, viz. ſtrong women and maid ſervants, which may lift her up and ſupport her when ſhe is in her labours, and eſpecially an expert Midwife, which ought to mannage the whol Buſineſs. For if the Midwife err in her office, it is wont to cauſe difficulty of Birth. For ſometimes the Midwifes do over ſoon exhort the Childing woman, to hold their breath and to ſtrain themſelves to exclude their Child, while the bands which faſten the Child to the Womb, are as yet unlooſed; by which means, the ſtrength of the woman is waſted before hand, which ſhould have bin reſerved to the juſt time of her travail. Yea and the truth is, while the Midwifes do overſoon perſwade the Childing women, that the time of their travail is at hand, they bend all their ſtrength to exclude the Child, and oftentimes violently break thoſe bands with which the Child is faſtened, and caſt themſelves into no ſmall Jeopardy.

Hard Travail is known both by the Childing woman, and by the Aſſiſtants, but eſpecially by the Midwife. And in the firſt place, if the woman continue a longer time than ordinary in her Labors, as two, three, four or more daies whereas a truly natural Child-birth ought to be accompliſhed within the ſpace of 24. Houres. Again, it is a Sign of an hard Labor, if the womans paines be weak, and are long before they return, and if her paines are more about her Back than Privities. And the Cauſes of hard travail, are known by relation of the Childing woman, and are for the moſt part evidently to be ſeen. So the weakneſs of the woman, her over leanneſs, or over fatneſs, is perceived by the habit of her Body. Diſeaſes of the Womb are known by their proper Signes. The Childs weakneſs is known by its weak and ſlow moving it ſelf. But the Signes of a dead Child ſhall be declared in the next Chapter. The greatneſs of the Child may be gathered from the ſtature of the Parents, eſpecially when a big-Bodyed man is matched with a little woman. But when there are none of theſe Signes, and the woman labours ſtoutly, and the Child ſtirrs and makes its way ſufficiently, and yet the travail is hard and painful; it is a token that the ſecundine or After-birth is ſtronger than ordinary, and can hardly be broken, which conjecture is more probable, if no water or moiſture come from the woman dureing her Labors. The diſorderly poſture of the Child is perceived by the Midwife, and the other Cauſes are viſible to the Eye, as we ſaid before.

As for the Prognoſtick. Hard-Travail, is of it ſelf dangerous in which ſometimes the Mother, ſometimes the Child and ſometimes both do looſe their lives.

If a woman be four daies in Labor, its hardly poſſible the Child ſhould live.

Sleepy diſeaſes and Convulſions which befall a woman in Travail are for the moſt part deadly.

Sneezing which befalls a woman in ſore Travail is good. Out of *Hippocrates* in his Aphoriſmes.

To

To cure difficulty in Child-birth first all causes which may delay the birth, are as much as may be, to be removed. And afterwards, such Medicines as further the Birth are Methodically to be administred.

And in the first place it is common among the women to give a groaning wife a spoonfull or two of Cinnamon Water. Or Cinnamon it self in Pouder with a little Saffron may be given, or half a dram of *Confectio Alkermes* may be drunk in a little Broath. Also Saffron alone being given ten graines in every Mess of Broath the woman takes, or every hour being taken in a little Wine is very good Or.

Take *Oyl of sweet Almonds and White Wine of each two ounces. Saffron and Cinnamon of eath twelve graines Confectio Alkermes half a dram. Syrup of Maiden Hair one ounce and an half. Mix all and make thereof a potion.*

If this shall not suffice, but that stronger things, must be used, the following potion will be most effectual, which I have had frequent experience of.

Take *Dictamnus Cretensis, both the Birthworts, and Trochisces or Cakes of Myrrh of each half a scruple. Saffron and Cinnamon of each twelve grains. Confectio Alkermes half a dram: Cinnamon Water half an ounce, Orange-flower and Mugwort Water of each an ounce and an half: Make all into a potion.*

Among the more effectual sort of Medicaments are numbred Oyl of Amber, Oyl of Cinnamon and extract of Saffron, which do in a little quantity work much. viz. Extract of Saffron to five or six grains, Oyl of Cinnamon to four or five Drops; Oyl of Amber to twelve or fifteen Drops, in VVine, Broth or other Liquor.

Sneezing hastens the Birth, or *Hippocrates* in the Aphor. 35. Sect. 5. Sneezing which happens to a woman in sore Travail is good. Sneezing may be provoked by the following Pouder.

Take *White Hellebore half a dram. Long Pepper one scurple. Castoreum five grains. Make all into a Pouder, and blow thereof into her Nostrills the quantity of a Pease.*

The same *Hippocrates* prescribes another Remedy in the first Book of womens diseases, which is omitted by all authors almost. And that is the opening of one of the lower veines of the Body, which he propounds in these words. *But if* (saith he) *a Big-bellied woman be so stopped that she cannot bring forth, but continues divers dates in her pains: if she be a yong woman, vigorous and full of Blood, her Ancle veines must be opened, and Blood taken away, according as her strength will bear.* Although this remedy be never used by our Practitioners, and it seems much to be feared, because in Travail nothing is so needful as strength, which may be weakened by Blood-letting: Yet if difficult Travail do arise from fullness of Blood, which *Hippocrates* doth insinuate in those words, where he saies *If the woman be yong and in the prime of her strength, and very full of Blood*; there is no question, but bleeding may be very profitable, because the Veines being very full of Blood, are wont to make al other inward passages of the Body more strait. Whence it comes to pass, that in pains of the Stone in the kidneys, the like Blood-letting doth often work wonders, and facilitate the expulsion of Stones contained both in the kidneys and Ureters.

Also hard Travail may be holpen not only by those inward Medicines prescribed, but likewise by outward

Let the Midwife therefore frequently anoint the Womb of the Childing woman with Oyls of Lillies, sweet Almonds, Lin-Seed, and such like.

Also let her belly be fomented on the nether parts with an emollient Decoction of Marsh-mallow and Lilly Roots, Leaves of Mallows, Violets, Mugwort, Seeds of Line and Fenugreek, with the flowers, of Chamomel and Melilot.

Let sharp Clysters be administred, by the provokeing virtue of which the expulsive faculty of the womb may be likewise rouled up; and the Gutts being emptied will afford larger space for the womb.

Let her Navel be anointed with Oyl of Amber. Some commend the Gaul of an Hen applyed to the same part.

Also such things may be used which are thought by a peculiar property to help the Birth: as Aegle-Stone, Load-Stone, Storax, and the rest being fastened to the Hipps.

Hartmannus Commends the Eyes of an Hare taken in the month of *March*: which are carefully to be taken out and dried entire with Pepper. Let one of these with Pepper be so tied to her Belly, that the Sight of the Eye may touch her belly: and it will bring forth the Child, be it alive or dead. Which being done take away the Eye least it bring forth the Womb it self. He saies likewise that it is good to bring out the Mole.

Heed is likewise to be taken that the woman carry no Precious Stones about her, either in rings or otherwise, but let her lay them al away: for many of them are conceived by a peculiar property to retain the Child in the womb.

If the Child seem to be weak, it must be refreshed, both with strengthening things given to the Mother, as warm wine, Confectio Alkermes, Cinnamon Water; and also with things outwardly applied

applied, as with a Crust of Bread, or a Rose Cake strewed with Pouder of Nutmegs, Cinnamon, Cloves, Kermes Berries, and sprinkled with *Aqua Imperialis* or with warm Wine. Or with a peice of Wether-Mutton a little broiled upon a Gridiron, and sprinkled with Water of Roses or of Orange-flowers; with the call of a wether newly kil'd, not yet cold, and such like.

If the Child begin to come forth in a disorderly manner, as by putting out one Foot, one Hand, or any other way; the Mid-wife must no waies receive it on that manner, but thrust it into the Womb again, and compose it to a right and natural posture or form of egress. Which must be done by laying the Childing woman on her Back in the Bed, with her Head somwhat low and her Buttocks high: and then gently pressing her Belly towards the short Ribs, and thrusting the Child into the Womb. Afterward let the Midwife endeavour to put the Child into a right posture for coming out, by an artificial Hand procuring that the Child turn its face towards the Mothers Back, and its Buttocks and Thighes let her lift up towards the Mothers navel, and so hasten the same unto a natural manner of coming forth.

When all Hope of the Childs coming forth is past, or when the Mother is almost dead, some Authors proceed to the Cæsarean Section [that is to cut the Child out of the Womb, as *Cæsar* was cut out] of which *Franciscus Rossetus* hath Printed a most elegant Treatise; in which by many reasons and examples he endeavours to shew, that such a thing may be sometimes done with good success. Howbeit, seeing this Operation is very dangerous and terrible, it ought seldom or never to be practised by a discreet Physitian, that would preserve his own reputation.

Chap. 19. *Of A Dead Child.*

IN sore Travel of Child-birth by reason of great and long Labour, the Child is oftentimes killed; and sometimes before a womans pains come upon her, the Child happens to die through some preternaturall accidents, such as those which are wont to cause Abortion; and if it hath not attained to the due time or natural Birth it causes Abortion, but if it have, it causes an hard and sore Travel, because in a due and naturall Birth, both the Mother and the Child ought to join their Forces, to bring it from the Dark Dungeon to the Liberty of Day.

All such things therefore which cause difficult Child-birth being in a greater and more grievous degree, are of power to kill the Child. But especially the Child is wont to be kild, if it come in so untoward and prepostrous a figure, that it can by no means be brought forth in that manner neither can the Midwife or Chyrurgion draw it forth, or reduce it to a better Posture. For while sticking thus in the mouth of the Womb, it frustrates all the endeavours of the Mother straining her self to exclude it: it comes to pass, that in those strainings, various motions and compressions, sometimes both Mother and Child, sometimes the Mother alone and sometimes the Child alone doth die. It is to be admired which *Fabricius Hildanus* writes, touching two women which died through hard Labour, in whom their Wombes were found broken a sunder and the Heads of the Infants in their Mothers Bellies. By which we may gather, how strongly a lusty Child doth labour to work it self out of the Mothers Womb.

A Dead Child is known, when the motion thereof ceaseth, which either the Mother did feel, or the Midwife perceive by her hand laid on, or other warm and strengthening things which were wont to awaken and rouse up the powers thereof when they were in a slumber or stupified. Also the Mothers find a greater sense of weight, with which and pain of the Belly they are troubled: when they turn from one side to another they perceive the Child to roul from one side to another like a Stone. The lower part of their Belly feels very cold, the native heat being extinguished and those spirits dissipated, which were formerly in the Child; their Eyes become hollow and troubled: their face and Lips are pale; their extream parts appear cold and of a Leaden-colour: their Duggs become slap and flaggy, and at length, when the Child rots, stinking moistures flow from the Womb, like water and blood: their belly is blown up with vapours ascending thereunto: a filthy smell, and a stinking Breath comes both out of the Mouthes of such women and from their whol bodies. If the After-Birth be excluded before the Child, it is a certain token that the Child is dead in the Womb.

As to the Prognostick. A Child dead in the Womb is a very exceeding dangerous thing, and if it be not timely voided forth it is wont to cause Feavers, Faintings, Dead-sleeps, Convulsions and death it self.

Yet sometimes a Child dead in the Womb may be kept a long time, as appears by many stories related by divers Authors, which *Schenkius* hath collected in great number as rare Cases, and *Sennertus* hath tranicribed out of him, touching many Women which have voided the Bones of Children dead and putrefied in the womb, by their Water-gate, their Dung-gate, and by a Swelling that broke in their Belly.

I have

I have seen one Woman which voided all the bones of her child by her Navel, and her Navel growing afterwards whol again she recovered her perfect health.

The Cure consists wholly in the Exclusion or Extraction of the Child; for seeing great danger of life attends the Mother so long as the dead Child is in her Womb, as soon as ever by the foregoing signs, we certainly collect the Child is dead, we must make hast, to force it out. Which is done by the same Remedies which were formerly propounded to hasten the Birth. But among them we must chuse out the most strong and effectual, whereunto some other things may be added which are yet stronger, after this manner:

Take *Leaves of Savin dried, round Birth-wort Roots, Troches of Mirrh, and Castoreum, of each one dram: Cinnamon half a dram: Saffron a scruple. Mix all into a Pouder. The Dose is a dram in Savin Water.* Or,

Take *Dittamnus Creticus, Savin, Borax, of each a dram: Mirrh, Asarum Roots, Cinnamon, Saffron, of each half a dram. Mix and make all into a Pouder. The Dose is a dram in the forer said, or such like Liquor.*

In the mean time, let the Fomentations aforesaid be applied to the Privities, the Share, and space between the Water and the Dung-Gate; adding Briony Roots, Roots of wild Cucumer, Florentine Orice, round Birthwort, called *Aristolochia rotunda*, and Broom-flowers.

After Fomentation, anoint the said Parts with *Unguentum de Arthanita*, or with this following:

Take *Aristolochia rotunda, or round Birthwort, Coloquintida, and Agarick, of each one dram: Gum Ammoniack dissolved in Wine and Bulls Gall, of each two drams: With Oleum Cherinum, as much as shall suffice. Make all into an Oyntment.*

Also let this Pessary be put up into the Womb:

Take *Aristolochia rotunda, Orice Root, Black Hellebore, Coloquintida, Mirrh, of each one dram: Galbanum, Opopanax, of each half a dram: With Ox Gall, make all into a Pessary.* Or this:

Take *Ammoniacum, Opopanax, Castorium, Sagapenum, black Hellebore, wild Vine, round Birthwort, Pulp of Coloquintida, Scammony, of each one scruple: Euphorbium one dram: With Juyce of Rue, Bindweed, wild Cucumer, and an Oxes Gall, make all into a Pessary.*

Zacutus Lusitanus in Obs. 154. of the Second Book of his strange and Admirable Cures, doth testifie, that a dead Child in the ninth months growth, producing many Symptomes in the Mother, was driven out by this Pessary, and by help of an Oyly Bath, wherein was mixed the Decoction of such Herbs as do open and widen the Passages of the Body.

A Fumigation of Galbanum, or an Asses Hoof, may be received by a Funnel into the Womb.

If the Matter hang long, it will be good, the woman being sufficiently strong, to give her a purging Medicine; whereby evil Humors, which in this case are easily collected, may be evacuated, and the dead Child consequently cast forth.

Angelus Sala, in his Book which he calls *Triumphus Emeticorum* (that is, the Triumph of Vomits) doth witness, That in this case he had often with happy success given four or five grains of *Mercurius vitæ*, which doth most powerfully expel the dead Child, and excel all other Medicines in that point. Which notwithstanding, in regard of its vehement working, requires great Caution and Discretion in the Physician that would use it.

If after Medicines long tried, the dead Child cannot be ejected, we must implore the Chyrurgions aid. Who may pull it out, either by Instruments, as *Paulus Ægineta* describes the manner, or only help of the hand, as is taught by *Carolus Stephanus*, *Baubine*, and others; all which are diligently transcribed by *Schenkius* and *Sennertus*.

Chap. 20. *Of the After-birth retained.*

IN a Natural Birth, commonly the Secundine is excluded presently after the Child, yet sometimes it is retained in the Womb, by which means the Mother is in great Danger of her life.

The internal Causes of this retention are, the over thickness of those coats, and their too great compactness, by which means they cling more fast to the sides of the Womb: their being swelled through confluence of humors, which is stirred up in a laborious Travel, weakness of the Mother caused by hard Labor, so that she wants strength to exclude the After-Birth; and the shutting up of the Mouth of the womb, after the Child is come away. But the external causes are, the Cold Air, by force whereof the Secundine is repelled and the Wombs mouth stopped; Certain smells by which the Womb may be enticed upwards or agitated; some grievous passion of mind, as fear, or suddain terror

or frowardness of the Childing woman, which will not abide in such a posture nor use such endeavours as are necessary to this work; the over great weight of the Infant, by which the Navil-string is broak unawards and the secundine is left within; and the Error of an unexperienced Midwife, which cuts the Navil-strings too soon, or holds them not fast in her left Hand; as she ought to do, for if she let them go, they are drawn back into the Womb, and there lie hid with the After-Birth, which they ought to have holpen to pull out.

The Tokens of a Secundine retained are needless, its apparant of it self; yet sometimes a bit thereof is severed from the whol and retained, which is not so eatie to be known; yet it may be known, because the Womb after the Birth, doth yet labor to cast somwhat forth, although those endeavors are not so great as formerly; there is perceived in the womb, a sence of pain and heat, and after certain daies, a filthy and carrion-like smel exhales from the Womb.

The Retention of the Secundine is a very dangerous thing, and if it continue some daies in the womb, it acquires a filthy putrefaction, whence ariseth an acute Feaver, aptness to vomit, fainting, difficulty of breathing, a Diaphoretick Sweat, Coldness of the extream parts, Hysterical Fits, Fits of Falling-sickness, and at last death it self.

Hippocrates in the Second Book of Popular Sicknesses, by the example of a certain Carriers Wife, doth hint unto us, That it is good in this case, when corrupt blood doth suddenly come from the womb in large quantities, for it is hopeful, that those Membranes being rotted and wasted, will flow forth upon the sixth or seventh day.

The After-birth retained, is expelled by the same Remedies which were propounded to drive out the dead Child, whereunto we may add some appropriated or specifick Medicaments, mentioned by Authors.

Gesnerus and *Augenius*, do very much commend the stones of a gelded Horse, cut in pieces and dried in an Oven. The Pouder whereof is given, as much as can be taken up between three fingers, with the Broth of a Pullet: which Medicine, if need be, must be twice or thrice reiterated.

Rulandus gave thirty drops of Oyl of Juniper with happy success.

Some advise the Childing Woman to hold an Onion hard between her Teeth, and squeeze it there, swallowing down the Juyce; and she is to bite it so three or four times, still sucking out the Juyce, and swallowing the same; and at last to drink a draught of warm Wine upon it, which presently helps her.

Forestus makes relation of a certain Midwife, which received this following Secret from a Jewish Physitian. Shee took the green Tops of Lovage, she stamped them, and strained out the Juyce with the best Rhenish Wine, and gave a draught of it to the Patient.

Angelus Sala commends *Mercurius vitæ* in this Case, as well as in the Expulsion of a dead Child.

Hereunto add, Sneezings, Fumigations, Fomentations, Liniments, and other Medicines both inward and outward formerly described in the case of a dead Child.

The following Decoction used by a Country woman of ours, hath done wonders.

Take *Vinegar of Roses eight or ten pints: Bay Leaves, and Bay Berries, of each three handfuls: one Rose Cake cut in bits. Boyl all together, and let her Hips and Legs be a long time together bathed, from her groyns down to her feet. Upon the use hereof, the Womb hath opened of its own accord, and the After-birth fallen away. To this Decoction may fitly be added, of Mirrh, and of the two Birthworts, of each one ounce.*

And among other helps, the hand of a skilful Chyrurgion can do much, being put into the womb, before the Inflamation or Inflation be augmented. For he laying hold of the After-births, and gently turning them this way and that way, may draw them out, and free the woman from so many Symptomes, and tiresom Medicines.

If the Secundine can by no means be perswaded forth, but stick strongly to the womb, and there putrefie, suppurating things are to be put into the womb, clensing things being mingled with them, that as much as is putrefied, may be by little and little brought forth. To which intent *Rondeletius* commends *Unguentum Basilicum*, especially if it be dissolved in the following Decoction.

Take *Leaves of Mallows with their Roots, three handfuls: Roots of the two Aristolochia's, or Birthworts, of each six drams: Lin-seed, and Fœnugreek seed, of each half an ounce: Violet Leaves one handful: Flowers of Chamomel, and the smaller Centaury, of each half a handful. Boyl all in Water, mixing therewith (if there need great suppuration, or reduction to Matter) a little Oyl; but if there be more need of detersion, or clensing, add a little* Unguentum Ægyptiacum.

CHAP.

Chap. 21. *Of Immoderate Flux of the* Loches, *or Child-bed Purgations.*

THe Immoderate Flux of Child-bed Purgations called from the Greek, *Loches*, is not to be estimated from the quantity, or the time of continuance; because that in divers Natures, Ages, and Courses of Life, it is very different; but from the ill-bearing of the woman and her weakness therefrom arising.

The Causes of this Immoderate Flux, are the over wide opening of the Vessels, or their rending in hard Travel, or the violent drawing forth of the After-birth; or a more than ordinary quantity of blood, which hath been collected in the Veins of the Womb, during the whol course of the Womans being with Child; or the thinness and sharpness of the said Blood, which doth too much open the Mouthes of the Veins, and provoke Nature to Excretion.

Immoderate flux of the Child-bed Purgations is known, as hath been said, from the strength of the woman which is dejected through the exhaustion of her spirits that issue with the blood; also the blood is clotted, and the Patient loaths all meat, is pained under her short Ribs, feels a distention of her Belly; her Pulse is weak and frequent, her sight is dimmed, she hath noise in her Ears, is subject to Swooning and Convulsions.

As all great Fluxes of Blood are dangerous, because blood is the Treasure of our Life, so immoderate flux of the Child-bed Purgations is more dangerous than the rest, because of the Travel which goes before, and weakens the Patient. But the danger is more or less, according to the greater or less quantity of the Blood which comes away, and as the Symptomes are more light or grievous which attend the same; which made *Hippocrates* to say, in the 55. Aphorism of the fift Section. *If Convulsion or Swooning betides a Woman upon her Feminine Purgations, it's a shrewd sign.*

The Cure of an Immoderate flux of Blood, consists in one only Point, viz. The stoppage of the said flux. Yet extraordinary care is to be taken, lest that be kept within, which by these Purgations was wont to be carried away, and so prove the cause of grievous Infirmities. And therefore if the flux do not extreamly urge, we must begin with lighter Medicaments, proceeding by little and little if need shall require, to such as are stronger.

And in the first place, The violent Motion of the Blood is to be bridled by an incrassating or thickening Diet, as by Panadaes, Gellies, Rice, Starch, with Calves-foot Broths, Pears, and Quinces boyled, Rosted Flesh sprinkled with juyce of Pome-granates.

Let her have pretty plenty of Meat, but not at once, but divers times one after another. For by this means the Heat and Spirit which in the Womb do assist to the Expulsion, are called away to the Stomach, and by that means the Patients strength is restored.

Let her Drink be Water that hath had Iron quenched in it, or Gold, or in which a little Mastich hath been boyled. Then such things are to be used as do revel the Blood into the superior parts, as rubbings and bindings of the upper parts, Cupping-glasses fastened under the short Ribs on either side.

It is good likewise to bath the Patients hands in hot Wine, in which *Confectio Alkermes*, or Venice Treacle hath been dissolved.

Also let her Belly be moderately swathed with a Rowler or Swath-band; because hereby the Vessels of Blood will be pressed together, and the immoderate flux hindered.

Let Linnen Cloths be applied to her Loyns moistened with a mixture of Water and Vinegar, by which the blood contained in the *Vena Cava*, is tempered, and the motion thereof hindered.

If the flux be very immoderate, and weaken the Patient, so that there is danger of Death, we must have speedy recourse to stronger Remedies: Among the rest, this following Potion hath commonly good success.

Take *Waters of Plantane, Orange flowers, and Roses, of each one ounce: Syrup of Corals, or where it is wanting of red Roses, one ounce: Sal Prunella one dram: Dragons blood ten grains. Make all into a Potion.*

If the flux do yet continue, a Pouder, or an Electuary for divers Doses, may be prescribed after this manner:

Take *Blood-stone four scruples: Pouder of Bole-Armoniack, red Coral, prepared Pearls, of each one dram: Seeds of Plantane, Coriander prepared, and grains of Sumach, of each two scruples: Mix all, and make them into a most fine Pouder, of which let her take one dram with the Decoction of Knotgrass and Syrup of Quinces.*

Take *Conserves of Roses and of Comfrey Roots of each one ounce: Bole-Armoniack, Troches de Carabe and prepared coral of each one dram: with syrup of coral or of dried red Roses make all into an Electuary, of which let her take the Quantity of a Chestnut, drinking a little of her ordinary drink after it.*

Also a fomentation and an Oyntment will profitably be applied outwardly, made after this manner.

Take *Topps of the red Mastich or Lentisch, Plantane, Cypress, Olive, and Solomons Seal of each one handfull: Red Rose Leaves two pugills: Myrtle Berries one ounce and an half: Cypress-Nuts, six: Peels of Pomgranates two pugils: Boyl all in Steel-quenched Water and astringent harsh red Wine, and with the strained Liquour bath the Privie Parts, very luke warm, and almost coldish.*

Take *of the Countesses Oyntment or* Unguentum Comitissæ *two ounces: Juyce of Plantane one ounce: worke them together into one Oyntment, to be used after the fomentation.*

Also an Injection may be made of the Juyce of Plantane into the Womb, commended by *Galen* in the fifth Book of his Method, or of the Decoction of the foresaid fomentation.

Other remedies not helping, to open a vein in the Arm is a present Cure, if the Blood be drawn out in distant spaces of time; for experience hath taught, that many women given over as incurable have by this means recovered.

And finally, the disease still remaining, all Medicines prescribed for the immoderate flux of the monthly courses, may be used in this Case likewise.

And among the Medicines for immoderate Courses, Cataplasmes were propounded to be applied to the share, and Loines; unto which the following Cataplasm or pultis may be added, very good for all immoderate fluxes of Blood, but especial for these Child-Bed Purgations.

Take *Pure Soot from the Chimney not mixt with Dirt eight ounces: work it lustily with the strongest Vineger, and make a pultis to be applied to the Reines of the Back.*

And it is here specially to be noted touching sleep; that while the Blood flowes plentifully, the woman must not be suffered to sleep, for many by that means are taken away, because the natural heat retiring inward, causes the flux to be greater. And if sleep in such a case cannot be avoided, some must be alwaies by of the servants to feel her pulse and mark how she fetches her Breath.

In a word, if clotters of Blood do settle in the Womb, and cause a pain and stretching therein; endeavour must be used speedily to bring it out, least coming to putrefy, they transmit filthy vapours to the Brain and Heart and cause a feaver. Therefore the Childing woman, if strong enough, ought to walk gently, or stand bolt upright for some time together, or to sit upon the groaning Chair, as if she had list to stool. And if this suffice not, the clotters are to be dissolved with a warm Decoction of French Barly and a little Oxymel or honey of Roses injected into the Womb. But here we must go warily to work least while we bring out the clotters, the flux of Blood be afresh provoked.

Chap. 22. *Of Suppression of Child-bed Purgations.*

THe good and happy success of Child-bearing doth especially depend upon the convenient and orderly flux of the Loches or Child-bed Purgations; seeing the Impurities which have bin collected in the veins of the Womb, during the nine months time of the womans Belly-bearing, are wont to be avoided by these evacuations; but if they be suppressed wholly or diminished, infinite Dangers and Calamities arise thereby viz. acute Feavers, Phrenzies, Madness, Melancholies, Squinzies, Pleurisies, Inflammations of the Lungs and other swellings, which are for the most part malignant.

The Cause of this supression or imminution are, the thickness of the Blood, narrowness or obstruction of the vessells, which hinders the free egress of the Blood; cold air heedlesly received into the Womb, which closes the Orifice of the vessells, taking cold at the feet, drinking of small cold Drink, fear, Affrightment, sadness and other Passions of the mind, which withdraw the Course of the Blood from the Womb.

This Suppression is manifest of it self, and the diminution thereof is not to be judged by the Quantity which comes away, because some women have more superfluous Blood and some less. But the perfect knowledg thereof is gathered from the supervenient Symptoms such as are a swelling of the Belly, a pain possessing the nethermost part of the Belly the Loines and Groines; redness of face, difficulty of breathing, perturbation of the Eyes, shivering fits, Feavers, Fainting fits, and other Symptomes related before.

The Prognostick is drawn out of the Symptomes propounded as supervenient to this Disease, for they being for the most part dangerous, the cause from which they spring must needs be very dangerous likewise.

Childing

Childing women are freed from the foresaid danger, if some other evacuation happen which may at least in some measure supply the defect of these purgations, as Bleeding at the Nose or by the hemorrhoid veins: plenty of Urine with a sooty setling, or plentiful sweating. Or if after some daies Lead-colored, black, and stinking matter begin to flow forth. But it is to be feared, lest by the corrupt blood, ulcers should be bred in the womb.

The whol Cure of this Malady, consists in the provocation of these Purgations, which must be endeavored by such Medicines as provoke the Course of the Blood downwards, and open the Vessels of the Womb.

And in the first place, Emollient, Purging, and Opening Clysters are to be administred, made after this manner:

Take *Roots of Marsh-mallows, and Water-lillies, of each one ounce: the long and round Birthwort, of each three drams: Leaves of Mallows, Marsh-mallows, Pellitory, Mercury, of each one handful: Line seed, and Fenugreek seed, of each half an ounce: Flowers of Chamomel and Elder, of each two pugils: Boyl all to a pint. In the strained Liquor dissolve, Oyl of Dill, and Lillies, of each one ounce:* Hiera simplex, *half an ounce:* Unguentum de Arthanita *one dram. Mix all into a Clyster.*

Let her Thighs be rubbed downwards; let the Toes of her Feet be tied till they ake again; let divers Cupping-Glasses be fixed to her Groyns and Hips, and let some of them be scarrified.

If these means suffice not, open the Veins about the Knees, or of both the Thighs; or the Hemorrhoid Veins, if Nature seem to incline that way.

If a Feaver be caused by suppression of these Purgations, a Vein must be opened in the Arm, as shall be said in the Diseases of Women in Child-bed.

This following Fomentation may be applied to her Belly beneath the Navel, and to the Privy Parts.

Take *Roots of Marsh-mallows, Lillies, Briony, Angelica, and Birthwort, round and long, of each an ounce: Leaves of Mercury, Mugwort, Penyroyal, Savine, Calaminth, of each one handful: Lin-seeds, and Fenugreek seeds, of each an ounce: Flowers of Chamomel, Melilot, Elder, Tansie, of each a pugil. Beat them and cut them according to art, and put them into two bags, which boyl in Fountain Water, and apply by course one after another.*

After Fomentation anoint the foresaid Parts with Oyl of Lillies, Sweet Almonds, and Sesamum, adding thereto a little Saffron.

Hereunto may be added such Pessaries and Fumigations as have been set down in our Chapter of Suppression of the Courses, beginning with the most gentle.

Let her drink a Decoction of opening Roots, Cinnamon, and red Vetches with a little Saffron. Or,

Take *Opening Roots, of each two drams: Leaves of Bettony, Endive, Maiden-hair, of each a handful: Schœnanth one pugil: Annis seed, and Fennel seed, of each one scruple: red Vetches a spoonful: Boyl all to a pint and an half. To the strained Liquor ad Cinnamon Water two drams: Syrup of the five opening Roots three ounces. Let her take four ounces twice a day.*

Before the Feaver be encreased, we may sometimes give Troches of Mirrh one dram; with white Wine or Fennel water.

Foresius useth the following Decoction though there be a Feaver.

Take *French Barley one handful: Liquoris scraped half an ounce: Schœnanth one dram and an half. Boyl all to a pint, for three Doses.*

For the weaker he causeth one dram of Schœnanth to be boyled in Chicken Broth, which he gives the Patient to drink.

Also a Purgation may be convenient, seven or nine daies after she is delivered, of the Infusion of Rhubarb, Agarick, or Senna, or with a Laxative Broth made of opening Herbs and Roots with Senna; or with an ounce and an half of Manna dissolved in Broth.

Chap. 23. *Of Gripings after Child-bearing.*

GRipings do so frequently betide Women in Child-bed, that very few Women are free from them. But they are not wont to seek to the Physitian for these Pains, because within two or three daies they go away. But if they happen more sharp, and of longer durance than ordinary, they are forced to send for the Physitian, who before he prescribe any thing, must consider the Causes.

The chief Causes of Gripings and Pains after Child-birth, are the plenty of Blood, its thickness, sharpness, and narrowness of the Vessels. For the Veins of the VVomb, having for nine months forborn their usual evacuation of blood, and the blood being gathered in great quantity, and by its

retention

retention becoming thick and sharp; while it goes through the narrow passages, it causeth pains, which return by fits, as often as the womb endeavors a new expulsion of blood; which being over, they cease till such time as other blood doth seek its way forth.

Sometimes these gripings are caused by Winds, or by Cold received into the Womb, but not so often.

These Pains are differenced from others which are wont to afflict the Belly, by their continuance, and by the distances of holding up, which they observe according to distant fits of the bloods issuing forth: and the women themselves can easily distinguish these pains from all others.

Thick blood is known by clottering, but the thin blood by its tenuity, fresh color, or yellowish.

If the Pain spring from wind, it is more wandring, being sometime in one part of the Belly, and sometimes in another; neither doth it observe the distances in which the Blood issues. If cold Air have entred the Womb, it may be known by a relation of what hath been acted about the sick woman.

These pains are not dangerous, but for the most part exceeding troublesom: therefore must be removed or mitigated as soon as may be.

The Cure of these Gripings ought to be directed to these ends; viz. That the Vessels of the VVomb be made wider, the Blood thinner, and its sharpness mitigated. All which may be accomplished by these following Medicaments.

And first of all, let the Patients Belly be gently swathed that her womb may settle, and not be moved this way and that way, as often falls out after Child-birth, by reason of the sudden evacuation.

Then give her three ounces of Oyl of sweet Almonds new drawn, with an ounce and an half of Syrup of Violets, and two ounces of Hippocras.

Let Clysters be cast in of Milk and Sugar, with the Yolks of Eggs.

Or they may be made of a Decoction of Chamomel flowers, and Mugwort in Pullet Broth, adding Oyl of Lillies, and the Yolks of Egs.

Anoint her Belly with Carminating, or Wind-expelling, and opening Oyls, as Oyl of Dill, Rue, Jasmine, or with this following, which being of great efficacy, ought to be made in time convenient, and kept in the Apothecaries Shop for such occasions.

Take *Roots of round Birthwort, Orice, and Peony, of each one ounce: Cypress Roots half an ounce: dried Leaves of Mugwort, Feaverfew, Origanum, Calaminth, Penyroyal, Dictamnus Cretensis, Wormwood, Savin, Rue, Bettony, and Sage, of each one handful: Flowers of Rosemary, Stœchados, Lavender, Chamomel, Dill, St. Johns wort, and Elder, of each half a handful: Bay-berries, and Juniper berries, of each half an ounce: Seeds of Cummin, Rue, Piony, Carrots, and Agnus Castus, of each three drams: Cloves, Nutmeg, Cinnamon, Ginger, of each two drams: Storax, and Mirrh, of each one ounce. Let all being beaten and cut, be steeped in six pints of old Oyl, adding a little white Wine. And put them in an Earthen Vessel close stopped, the space of a week; and then boyl them over hot Embers the space of four or five hours; then let the Oyl be strained out, and reserved for use. If the foresaid Oyl be wanting upon occasion, let the foresaid simples boyl in equal portions of Oyl and white Wine, till the white Wine be consumed; then let the Oyl be strained out.*

Also a Fomentation may be made of the Decoction of Mugwort, Bawm, Bay-leaves, Calaminth, Carrot seed, Cummin, and Caraway Seeds, Flowers of Cheiri and Chamomel in Water, white Wine or Milk. Or the following Cataplasm may be applied.

Take *three or four Onions well boyled in Water; beat them in a Morter, and put thereto Seeds of Line and Cummin beaten, of each one handful: As much Chamomel flowers: Barley Meal as much as shall suffice to make all into a Pultiss. And if need be, add a little of the Water wherein the Onions were boyled. Spread it upon a Cloth, and apply it warm to her Navel.*

It is likewise profitable to apply the Skin of a weather newly flead off while it is warm, to her Belly. For this kind of warmth is very neer of kin to our Natural heat, concocts and mitigates the cause of the pain; also it hinders the Skin of the Belly from gathering into wrinkles.

These following Medicines may be given inwardly:

Take *Carrot Seeds poudered one dram: white Wine three ounces: Mix them. Give it warm twice a day.* Or,

Take *Nutmeg, Annis seed, Cinnamon, of each one scruple: mix them into a Pouder to be taken in white Wine; or give one scruple of Oyl of Nutmegs in Broth.* Or,

Take *Date and Peach Kernels, of each half a dram: Nutmegs four scruples: Pouder of* Diamargaritum Calidum *two drams: Annis seed one dram: Cinnamon two scruples: Saffron ten grains: Sugar the weight of all the rest. Make all into a most fine Pouder, whereof give two drams in Wine twice or thrice a day, if the pains are much.*

Foresius

Foreſtus gave a Decoction of Chamomel flowers in Beer, or a Decoction of Mugwort and Chamomel in Pullet Broth with good ſucceſs.

It's good preſently after ſhe is brought to bed, to give her the Broth of an old Cock, three daies together early in a morning while ſhe is faſting, with a little Cinnamon and Saffron.

The following Pouder taked preſently after the delivery of a woman, doth wonderfully preſerve her from Gripings; inſomuch that it is thought, If it be given a woman after her firſt Childing, ſhe wil never after in her following Lyings-In, be troubled with theſe Gripes.

Take *the greater Comfry Root dried one dram: Peach Kernels and Nutmeg, of each two ſcruples: Amber half a dram: Amber-greece half a ſcruple. Make all into a Pouder; of which let her take one dram in white Wine, or if ſhe be Feaveriſh, in Broth.*

For her ordinary Drink, let her uſe a Decoction of Mugwort with Cinnamon.

If the Gripings be cauſed by Chollerick and ſharp humors, they are cured much after the ſame manner that the Chollick is cured, when it proceeds from Choller. As for Example:

Take *Syrup of Violets and Borrage, of each one ounce: Mucilage of Quince ſeeds drawn out with Violet Water, half an ounce: Water of Borrage and Scorzonera, of each three ounces. Mix all, make thereof a Julep for two Doſes.* Or,

Take *Oyl of ſweet Almonds two ounces: Syrup of Violets an ounce: Borrage Water half an ounce. Mix all for a draught.*

External Medicines muſt likewiſe be uſed, ſuch as are laxative and emollient, which do likewiſe by one and the ſame labor, eaſe pain.

Oftentimes, after they are brought to bed, women are pained in their Groyn, by reaſon of their wombs being gathered together like a ball in their Groyn. It is cured by applying to their Navel a Plaiſter of Galbanum and Aſſafœtida, in the midſt whereof, ſome grains of Musk muſt be put.

Chap. 24. *Of Acute Diſeaſes of Women in Child-bed.*

WHat we ſaid before touching the Acute Diſeaſes of women with Child, we may now repeat touching the Acute Diſeaſes of women in Child-bed; viz. That they have the ſame Eſſence, and the ſame Signs, with the like Diſeaſes in women which are not with Child, and in men. So that we ſhal refer the Reader for the Theory of theſe Diſeaſes to their proper Chapters.

Now theſe Acute Diſeaſes are for the moſt part, continual Feavers, both Eſſential, as *Synchus putrida*, a continual Tertian, and the reſt; and alſo Symptomatical, which accompany inward Inflamations, as the Pleurine, Inflamation of the Lungs, Inflamation of the Liver, Phrenzy, and ſuch like.

Yet there is a peculiar ſort of Feaver, which befals almoſt al women in Child-bed, which is called by them the Feaver of their Milk, which is wont to befal them about the third or fourth day after they are brought to bed, when their Milk begins to encreaſe in their Breaſts; and it ariſeth from the reflux of the blood from the womb to the Dugs, and the motion and agitation thereof. Which kind of Feaver is reckoned among the Diary Feavers of the longeſt durance; neither needs it any Medicines, becauſe within three or four daies, viz. about the ninth after her delivery, it is finiſhed by ſweat. It is diſtinguiſhed from putrid Feavers, becauſe commonly it ſeizes the woman about the fourth day, after her being delivered, and her Dugs begin to be filled with Milk, and to be troubled with hardneſs, pain, and heat; with heat and heavineſs in her Back and Shoulders; alſo her Child-bed Purgations flow duly, which ſeldom is ſeen in putrid Feavers.

Now putrid Feavers do befal women in Child-bed from three cauſes, viz. Suppreſſion of their Child-bed Purgations or diminiſhing, by the heaping together of bad Humors during the time of their Belly-bearing, which were agitated by her Labors, or by Errors in their Diet. Some add immoderate flux of the Child-bed Purgations, which is rather a ſign of the ſecret badneſs of Humors cauſing the Feaver, but cannot be it ſelf any cauſe thereof.

In ſuppreſſion of the Child-bed Purgations, the blood and vitious humors which are collected during the whol time of her going with child, do flow back again into the greater Veins, and there putrefie, and ſometimes are carried to the Liver, Spleen, and other parts, in which they raiſe Inflamations; or if they abide in the Veins of the womb, they putrefie, and ſo cauſe a Feaver, in thoſe women which were before in perfect health.

But if (the Child-bed Purgations duly flowing) a feaver ariſe, it comes either from ſuperfluity of Choller, or from errors in Diet. Evil Humors agitated by the Labors and Pains of Travel, do eaſily inflame and putrefie, and ſtir up a feaver. Errors of Diet may happen divers waies: And firſt in point of eating, in which women that lie In, are wont to be very faulty, ſtopping themſelves with

plenty

plenty and variety of Dishes, which cannot be by them digested, but causeth putrefaction in their Bodies. Another error is committed when Childing women do unadvisedly expose themselves unto the cold Air, especially while their Milk-feaver is in its vigor, which is wont to be terminated by sweating and transpiration, which is hindered by heedless admission of the cold Air, whence it comes to pass that the Feaver which of it self was void of danger, and would in a few daies have ceased, is changed into a dangerous putrid Feaver.

There is yet another frequent Cause of the Feavers of Childing Women, viz. When the Afterbirths are not wholly cast forth, but some portion remains behind. This happens principally in the Womb-Liver, a part whereof is sometimes annexed to the Womb, and left there, doth putrefie; which makes the Child-bed fluxes to come forth greenish, stinking, and Carrion like; and if within few daies it be not separated from the womb, and excluded, it casts the sick woman into great danger of death, seeing it may mortifie the Womb.

If Clotters of Blood, or any other preternatural thing, shal remain in the Cavity of the womb after Child-bearing, it may thereby be known, because the neck of the womb remains soft and open, neither is the inner Orifice thereof shut, neither is the womb drawn upwards; and whereas, when all goes well after Child-birth, the womb is drawn upwards, and its neck and orifice are quickly shut. An Example hereof is propounded by Dr. *Havey*, in his Treatise *de Partu*, concerning a woman, who having a malignant Feaver, and being very weak, miscarried; and after exclusion of a perfect Child, and uncorrupted, yet being very weak, with a creeping Pulse and cold Sweats, she was ready to give up the Ghost. He feeling her womb, perceived the Orifice thereof lax, soft, and very wide; and putting in his fingers, he drew forth a Mole as big as a Gooses Egg, having certain holes in it containing a clammy, black, and stinking putrefied matter, and the woman was soon freed from the foresaid Symptomes, and quickly recovered her health.

It happens likewise in some women that the Orifice of the womb presently after their delivery, is so shut up, that the blood contained within the womb, suddenly clottering and putrefying, causeth most sad Symptomes, and when no Art can bring it forth, present death follows. Yet Dr. *Harvey* relates in the place aforesaid, the History of a woman cured by him of this Disease. The Lips of the Water-gate were swelled, and very hot; the mouth of the womb was hard and close shut: He opened it a little with an Iron Instrument which he forcibly put in, so as it would admit an Injection made by a Syringe; and thereupon, clotted, black, and stinking blood, some pounds in quantity came away, by which means the sick woman had present ease.

The Prognostick of these Feavers herein only differs from the Prognostick of such like Feavers which happen to those that are not in a childing condition; because through the Labors of Childbirth, the strength of the Patient is more dejected; and by reason of the Child-bed Purgations suppressed there is a greater redundancy of Humors in the Veins; and in both respects the Party is in greater danger.

The Decision of that famous Question, Whether the computation of the daies of the womans sickness, ought to be made from the beginning of her Disease, or from the day in which she is delivered of her Child, makes much to cleer the Prognostick of this Disease, especially to foretel the Crisis. Which Question we shal therefore thus briefly determine: If the birth of the Child were natural, attended with no grievous symptomes, and the Child-bed Purgations were as they should be, and the Feaver come some daies after, the account ought not to be made from the day of the Childs birth, but from the day the Feaver began, which was provoked by some other preternatural Cause, viz. Evil Humors lurking within the Body, or from some external Cause. But if the Child-birth were hard and beside the Course of Nature, and the Feaver arose after three or four daies; we must reckon from the day of the Childs birth; because then the whol order of the Body began to be overthrown, and the Humors to be disturbed, which was followed by the Feaver. So in grievous wounds of the Head especially, though the Feaver come not til after the fourth or fifth day, yet the account is wont to be made from the day of the wound received, because the Humors began then to be in a commotion, and to be disposed to cause a Feaver.

The Cure of these Feavers, differs not from the Cure of other Feavers, unless in point of those great Remedies, Blood-letting, and Purging,; in the administration whereof, there is no smal scruple, which we shal briefly endeavor to remove.

As for letting of Blood in acute Diseases of women in Child-bed, the disagreement of Authors is so great, by reason of the contrary Indications on the one side, and on the other, that we can scarcely find two of the same mind. We shal briefly in these following Theorems or Maxims, propound that Opinion which cometh neerest the Mind of the wisest Authors, and is in the course of Practice most successful.

An Acute Disease befals a Child-bed woman, either in the beginning, or in the middle, or in the end of her Lying In.

If it happen in the beginning, and the woman be plentifully purged, there must be no other evacuation

cuation of blood, than that which is directed by Nature when ſhe rightly and conveniently performs her Operations. But if the Child-bed Purgations are ſuppreſſed, or flow ſparingly, let the inferior Veins be opened, and take a good quantity of blood away: becauſe at that time the Child-bed Purgations of blood, ought by the appointment of Nature to be plentiful.

If an Acute Diſeaſe happen in the middle time of her Lying In, two things are to be conſidered. The one is, Whether the Morbifick matter be contained in one particular place, or if it be diſperſed through the Veins? The ſecond, Whether the Woman hath been conveniently purged or not, in regard of quantity? If the Diſeaſe proceed from matter ſcattered abroad, as in Feavers, and the woman hath not been fully purged, the lower Veins ought to be opened: becauſe both the Morbifick Matter wil be diminiſhed, and her Natural flux wil be provoked. But if the woman have been ſufficiently purged, and the Diſeaſe get ground, and the Natural Evacuation have not been ſufficient for the Diſeaſe, the inferior Veins muſt be opened notwithſtanding; and ſo much blood muſt be taken away, that by two Evacuations that may be accompliſhed, which the Diſeaſe requires, according to the Doctrine of *Galen*, in the ninth Book of his Method, Chap. 3.

If the Feaver be very high, and great heat vex the Patient, let that be done which we ſhal preſently declare; which ought to be performed when the Diſeaſe ariſeth of Matter driven into ſome corner, and there putrefying.

In a particular Acute Diſeaſe, as the Pleuriſie, Inflamation of the Lungs, Squinzy, and the like; we muſt mark whether the Fluxion be only beginning, ſo that the Diſeaſe is only ready to ſeize upon the Patient, or is in its beginning, and very little blood be collected in the part. For then the inferior Veins are to be opened, that revulſion may be made to ſuch oppoſite parts as are at greateſt diſtance from the part affected, and by that means that prepoſterous motion of Humors may be ſtopped. But if the fluxion be already in good meaſure begun, and an Inflamation bred which proves very troubleſom, whether the woman be ſufficiently purged, or not, the ſuperior Veins are preſently to be opened right againſt the Part affected, becauſe ſuch an Evacuation draws Blood out of the Part Affected. But if the inferior Veins ſhould be opened, which are neither next the part affected, neither can evacuate therefrom, both the ſtrength of the Patient will be weakened by the evacuation, and that matter which is by Nature driven into a corner, and ſubdued, wil not be thereby diminiſhed. And ſo you muſt either draw all her blood in a manner out of her Veins, to revel the matter of the Diſeaſe from the part affected; or the woman will be killed by the Diſeaſe before ſufficient Revulſion be made. Neither need we fear, leſt by taking blood from the upper Veins, we ſhould draw the Courſe thereof from the womb, becauſe in ſuch Caſes the ſuperior parts of the Body do abound with blood. And although much blood be taken away, yet are not the Veins ſo emptied, that they ſhould be forced to draw new blood from other parts. Yet for the greater Caution, it will not be unprofitable before blood be taken from the ſuperior Veins, to cauſe the Thighs to be luſtily rubbed, and preſently after to tie them with bands ſo hard as to pain the woman, which muſt abide ſo bound til the bleeding be over, and a little after they may be looſened; and now and then Cupping-Glaſſes muſt be faſtened to the ſame parts, or at leaſt they muſt be again wel rubbed. So we may procure an evacuation of the Matter offending, and yet preſerve the Natural courſe of the blood towards the Womb.

The ſame courſe is to be taken in vehement and burning Feavers: For although the matter offending be diſperſed through the Body, yet is the burning heat ſo great about the Heart and Bowels, that it cannot be ſo wel extinguiſhed by the opening of a ſmal, and far diſtant Vein, as by the opening of a neerer and greater, ſuch as is the Vein called *Baſilica*.

This Method of Curing may be obſerved not only in Child-bed women, but in other women who are taken with Acute Diſeaſes, and have their monthly Courſes upon them.

If in the end of a Womans Lying-In, an acute Diſeaſe befal her, the ſame Courſe muſt be followed as in the middle, the ſame conditions being obſerved; obſerving this for a Rule, That by how much a woman is further from the beginning of her Lying-In, by ſo much more ſafely may the uper Veins be opened; but the neerer ſhe is to the beginning, yea, even in the middle, we are to open thoſe Veins with the greater premeditation. And if the Diſeaſe be not importunate, nor the ſharpneſs thereof require ſuch a thing, and the Natural Purgation be copious, we muſt wholly abſtain. But if the Purgation be ſcanty, we muſt open the inferior Veins to ſupply that which is wanting in the Evacuation. But if the contrary ſhal happen, let us follow that Rule which we preſcribed to be followed, in the urgency of an acute Diſeaſe.

The uſe of Purging in Childing Women that are held with acute Diſeaſes, ſhal be comprehended in theſe following Maxims.

While the Child-bed Purgations do Naturally flow, a Purge is never to be adminiſtred; for it is to be feared leſt Nature be diverted from her buſineſs.

But if the Child-bed Purgations are not kindly, we muſt conſider whether their fault conſiſt in Quantity, or in Quality.

If they offend in Quantity, so as to be too little, so that the woman be purged either not at al, or not sufficiently: After al Remedies fit to procure these Purgations have been given in vain, and the Morbifick matter appears digested, eight, ten, or twelve daies being past since she was brought to Bed, according to the more or less urgency of the Disease, she may be purged gently, wholly abstaining from al stronger Purgatives.

If other Purgations offend only in Quality, so that a white flux, or some other unnatural color do proceed from her, the Matter being ripe, she may in the last part of her Lying-In, be safely purged.

But this must evermore be generally observed, That by how much the longer a Childing Woman is distant from the day of her bringing to bed, by so much the more safely she may be purged, and contrarywise: For Experience hath taught us, That women wanting their Child-bed Purgations, if after the seventh or ninth day they are taken with a loosness, they commonly scape. But if the Loosness seize upon them upon the first daies, viz. on the secoed, third, or fourth, for the most part they die.

And so have we finished the Cures of Womens Sicknesses; all Praise and Honor be given to God therefore.

The End of the Fifteenth Book.

THE

THE SIXTEENTH BOOK OF THE PRACTICE OF PHYSICK.

Of Diseases of the Joynts, and Rhewmatick Pain of the whol Body.

The PREFACE.

THough all Diseases of the Joynts depend upon the same Causes, differing only in respect of the place affected, and are wont to be cured with the same Medicines; yet is there some difference between the Sciatica, *or Hip-Gout, and the pains of other Joynts, by reason of the structure and largeness of those parts, of which the Huckle or Hip-bone, is articulated, and made up; in respect of which, it requires some diversity in certain Medicines: therefore it is that I have resolved to treat of the* Sciatica *by it self. And because the Rhewmatick pain incident to the whol Body hath great Affinity with the running Gout which afflicts only the Joynts, I have thought good to annex the Explication thereof in this place; so that this Book will consist only of three Chapters: Of which, The First will treat of the Pains of the Joynts in General: The Second, of the Pains of the Huckle-bone, called* Sciatica: *The Third, of those Rhewmatick Pains which seize all Parts of the Body.*

Chap. 1. *Of Pain in the Joynts, called* Arthritis, *or the Gout.*

Arthritis, or the Gout, is a pain in the Joynts which comes for the most part by fits, stirred up by an Influx of Humors into the said Joynts.

The parts pained are, Membranes, Tendons, Nerves, and al the Nervous parts that are neer the Joynts, which are stretched by the Humor which flows into them, or by their sharpness are pricked and twitched: but the Ligaments which spring out of the Bones, are void of sence. Now the Humors which cause the Gout, do seldom flow into the very Cavities of the Joynts, and that only in an old Gout, and where the Cavities are wider than ordinary, as it happens in an old Sciatica, in which sometimes the Thigh-bone fals out of its place, the Ligaments and other parts binding the Joynts together, being loosened, and then the Cavity of the Joynt is filled with a snotty kind of flegm, as we see in *Hippocrates*, Apor. 59. Sect. 6.

It is wont here to be demanded, why the Humors flowing into Nervous and Membranous Parts, and distending and twitching them, they should not cause a Convulsion. We answer, that the Parts affected in the Gout are chiefly Membranes, which being no instruments of motion, they cannot cause a Convulsion, though never so much stretched or twitched. And although the Tendons and Nerves ordained for motion should be likewise pained, yet do they not cause a Convulsion; because to make a Convulsion the Muscles must be drawn back to their Head, and that retraction ought to be made by a contraction of the nerves which are inserted into them; but when they are gone out from the muscles, or are come unto their extremity, though they be distended, yet can they not contract the Muscles.

Authors do commonly make four sorts of Gouts, according to the diversity of the Joynts affected; *Chiragra*, or the Hand-Gout, when the Pain is in the Hands; *Sciatica* and *Ischias* when it is in the Hip. *Gonagra* when it is in the knees; and *Podagra* or the Foot-Gout when it is in the Feet. And the Pains of the other Joynts go under the common name of *Arthritis*: though *Pareus* have imposed proper names upon every one of them drawn from the Parts affected; calling the Pain in the Joynts of the Jaw-bone *Syagonagram*; in the Neck *Trachelagram*, in the Back-bone *Rachysagram*; in the Shoulder *Homagram*; in the Elbow *Pechyagram*. But these names have not been entertained by Practitioners. Therefore its sufficient to refer the Pains of those Parts to the general name of *Arthritis*.

There are besides, other differences of the Gout; as that some Gouts are General, occupying all or most of the Joynts of the Body; others particular, residing only in some one Joynt: some are ingrafted and Hœredetary from the Parents, others are adventitious caused by external Causes and Errors in Diet,

Now the Humours which breed the Gout, may have their Course not only into the Joynts but sometimes also into other Parts of the Body as the head, Teeth, sides, yea and the internal Parts as the Liver and Spleen and stir up divers Pains in these parts, which Pains are not to be termed the Gout, though they are Caused by the same matter which Causes the Gout.

Again all Pains seated in the Joynts merit not the name of Gouts, for sometimes there are Swellings in the Joynts especially in the knees, from which Pains arise, occasioned by thick, flegmatick, and Melancholick humors, which Pains continue very long, but are not to be reckoned among the Gouts, but have a distinct nature of their own. Which difference will more clearly appear by the different Characters of the Gout, which we shall describe in our Diagnosis thereof, that is in the Art of discerning the Gout from other Diseases by certain signes and tokens.

The next and immediate Cause of the Gout is a serous or wheyish Humor, either by its quantity stretching those sensible Parts which are about the Joynts, or by its sharpness twitching the same. That this matter is wheyish is hereby known, because thick Humors could not so easily flow into the Joints, and they would make a more Visible swelling in the Joynts, which is wont to be very little, yea in the begnning there appears no Swelling at all, though there be a most bitter Pain; add that the Tumor which is in the Gout, never comes to suppuration or ripens of matter, which often happens in other thicker Humors, if they have never so little Blood mingled with them, But in the Gout the Blood is drawn to the Joynts, as appeares by the Inflammation of the Parts; yet there never happens any suppuration or growing to a mattery Head, because Serosities or wheyish Humors rule the roast, and they hinder Suppuration.

But this wheyish Humor is seldom pure and sincere, but hath other Humors or their serosities and thinner Parts Joyned with it; whereupon great variety arises, according to the greater or lesser acrimony of the Humors mixed with the wheyish Humor, according to which the Pain is more or less; the Tumors is sometimes notably great and sometimes not visible; some are of a red colour, others yellow or white; in some the malady is soon ended, in others it continues long; sometimes a mighty and fervent heat possesses the Parts, otherwhiles little or none is discerned; sometimes hot things laid on do good, other whiles they do hurt and cold things help. Howbeit, it cannot be denied but that the wheyish Humor may of it self have more or less acrimony, according as it hath more or less Salt mixed with it: for seeing the serous or wheyish Humor, is wont to dissolve and drink up those heterogeneous salts, which are multiplied in the Body by reason of the multiplicity of meats we use, (whence it is that all the serum or wheyish Humor in us is salt) according as this Humor is more or less salt, and according as the salts mixed therewith have more or less sharpness, more or less Pain is wont to be caused.

And because in the Gout, as in every Fluxion, four things are considered, the matter flowing, the Part tending that matter, the Part receiving the same, and the waies by which the Fluxion is made; seeing we have spoke of the matter flowing, we are now to speak of the other four.

Touching the Part tending the Humor there is disagreement among Physitians. *Fernelius* would have all the material cause of the Gout (which he takes to be thin and flegmatick) to flow from the Head; not from the brain it self, (whose excrements are either voided by the nostrills, or flowing through

through the palate, are driven to the mouth, throat, weſand or ſtomach) but from the external Parts of the Head, ſituate without the ſcull. For ſeeing very many veines derived from the external Jugulars do run thither, he ſaies they do there lay down their thin and wheyiſh excrements, and ſeeing the Skin of the Head is thick and compact, and the Humors cannot eaſily breath through the ſame, in proceſs of time they grow there to a quantity, and as he conceives from thence they flow through the ſurface of the Body, under the Skin, into the Joynts. But others do conceive, that the Head is the fountain of the flood of Gouty Humors, but they conceive thoſe Humors flow from the inner Parts of the Head viz. From the Brain. Finally others there be that give ſentence, that theſe faulty Humors do flow from the bowells conteined in the lower belly, namely from the Liver, Splen, Womb and others, and alſo from the whol Body, through the Veins and Arteries into the Joynts. All which Opinions in my Judgment are Partly true and Partly falſe. We Judg they are true in that, they ſay the Humors which cauſe the Gout do flow from the Head by the inward and outward Parts, and from the Bowells and the whol Body by the Veins and Arteries: and falſe we ſay they are, becauſe they ſay that only the internal Parts of the Head, or only the external, or only the inferior Bowells do furniſh the Gouty Humor. For ſeeing the whol Body is paſſable to and fro by Humors, all Parts of the Body may ſend their ſuperfluities to the Joynts, if they be diſpoſed to receive them. Now that diſpoſition of the Joynts which makes them fit to receive a Fluxion of Humors (that I may take this occaſion to open the condition of a receiving Part) is their weakneſs, either native from the Parents, or ariſing from other Preternatural Cauſes, which we ſhall ſpeak of by and by. Seeing therefore it is eſtabliſhed by Phyſitians as a moſt ſure maxim, that the ſtronger Parts of the Body empty their excrements into the weaker, we may avouch that all the Parts aforeſaid may diſcharge their excrements upon the Joynts, if they being weakned, cannot ſufficiently reſiſt the ſame. And that the Opinions aforeſaid may be ſeverally refuted: *Fernelius* indeed doth clearly enough demonſtrate, that Humors collected without the Scul, do flow upon the ſurface of the body, and under the Skin creep into the Joynts, ſeeing ſomtimes the Pain begins in the Head, goes thence into the Neck, thence to the ſhoulders, and at length into the Joints. But that Humors do never flow from other places and Parts into the Joynts, he no waies proves, neither is any man able to prove after him. In like manner, they which ſay that ſuch Fluxions come only from the brain, ſeem to contend againſt ſenſe; Foraſmuch as thoſe Parts which compaſs the Joints about, do receive Veins and arteries, by which blood is brought unto them to nouriſh them withall, why may not alſo the wheyiſh Humor collected in the greater veſſells be carried unto the ſame Parts by the ſame waies? *Galen* hath taught this preciſely, in his Comments upon the Aphor. 10. Sect. 3 where he ſhews, that in the knobbs and Pains of the Joynts the profound Parts of the body are purged, the vitious Humors being driven from the principal Parts of the body into the Circumference. This is ſeen by the Feaver which is oftentimes raiſed in the beginning of the Gout; for it is cauſed by wheyiſh excrements conteined in the Veins, put into a commotion and working, when nature ſees her ſelf to expell the ſame, and ſeeing ſhe cannot drive it all forth, ſhe diſcharges the ſame into the weaker and ignobler Parts. Alſo the third Opinion, which *Sennertus* defends, is Void of reaſon, and is herein faulty, becauſe it denies that Gouty defluxions do ever come from the brain. For ſeeing all Parts of the Body both inward and outward, do receive Fluxions from the Brain, how can the Joynts be free from them? And if Humors cauſing a Catarrh do often flow by the Veins and arteries, whence Rhewmatick Feavers daily ariſe; and the Humors conteined in the Veins and Arteries (as *Sennertus* himſelf affirms) do eaſily flow unto the Joynts, it is a clear demonſtration, that a Fluxion is made from the brain into the Joynts. Alſo plentyful Piſſing declares that Humors flow from the brain through the Veins, when the ſaid Piſſing is cauſed by ſome commotion of the brain by reaſon of long abiding in the Sun, or in a very cold air; for then the wheyiſh Humors conteined in the brain are agitated by thoſe Procatarctick Cauſes, and driven into the Veins and Arteries, through which they flow unto the Kidney's and the Bladder, and thence comes ſo plentiful making of water.

The next and immediate Internal Cauſe of the Gout hath hitherto bin ſufficiently expounded; now let us proceed to the external and Procatarctick Cauſes or occaſions thereof: which we may for clearneſs take diſtinguiſh into three Tribes or Rankes, The firſt Tribe is of them which afford matter convenient to breed the Gout. The ſecond is of thoſe which do weaken and looſen the Joynts. The third is of them which promote the flux of the Morbifick Humor into the Joints.

To the firſt Tribe are referred al things which encreaſe raw and wheyiſh Humors, or any bad Humors whatſoever: as meates of groſs ſubſtance hard to be digeſted, and ſuch as afford many excrements, frequent Gluttony and Drunkenneſs; immoderate Carnal Embracements; which is the reaſon that Gout is called the Daughter of *Bacchus* and *Venus*; Idleneſs and a ſedentary life, and intermiſſion of ſuch exerciſes as men have been formerly accuſtomed unto; long ſleep and unſeaſonable watching; intermiſſion of ſuch naturall and artificial Evacuations as men have been accuſtomed unto; fear, Sadneſs and continual Care,

To

To the second Tribe are referred vehement motion and Labour; frequent use of carnall conjunction, especially of that which is celebrated standing; refrigeration and humectation of the Joints; frequent Bathing; Contusion, Luxation and Fracture of the Joints.

To the third Tribe are referred, Cold air squeezing out the Humors, and Heat melting, dissolving and agitating the said Humors and opening the secret Passages; means of a fervent and tart nature which attenuate the Humors; thin and strong Wine; Immoderate exercise, unbridled Lechery, vehement anger and other immoderate passions of the Mind.

The Signs do either foretell the Gout at Hand, or declare the same to be present.

Signes of the Gout at Hand: a Sence in the Joints more exquisite and quick than ordinary so that the lightest thing will hurt them; as for example the hard sitting of a new Shoe, Long walking, a small blow, or a light hitting against a stone, or some other hard thing. A Feaver commonly ushers in the Gout, which is caused by wheyish Humors and others contained in the Veins and arteries, being disturbed and agitated, whiles nature endeavours to expell them to those less noble Parts. But the neerer approach of the Gout, and its beginning as it were, is signified by a stupidity, and sence of crawling Pismires in the Joynts, and a kind of unusual Heat felt in them.

The Gout is known to be present by an actual pain tormenting the Joynts, which commonly is attended with redness and swelling; which if it appear not at the very first; yet is it seen presently after. The pain doth usually seize upon the great Toe, especially on the left foot, and oftentimes it spreads it self from thence into other Joynts. The Feaver which comes before the pain, doth sometimes continue; and sometimes it goes not before, but comes together with the pain.

The Signs of the Causes are likewise to be considered: For although the Humor causing the Gout be principally wheyish, yet is it needful to know what other Humors are mixed therewith, that we may fit out Medicines thereunto.

And in the first place, Choller abounding with the wheyish Humor, is known by a vehement and cutting pain, a small swelling, a reddish or palish color, great heat, and the Feaver intense and persevering in its state or height; thin Urine, yellow and reddish; cold things help, and hot things hurt.

Signs of flegm abounding with the Whey, are, a softish and somwhat loose swelling of the parts affected, which if a man press with his finger, there remains a pit; the pain is not so great, Urines are thick and troubled; Cold things hurt and hot things help; little or no heat is felt: the color is white, little differing from the Natural color of the part.

Signs of Melancholly abounding are, an obscure color of the part like Lead, deep pain, a thin and watry Urine, a weariness of the whol Body, and the temper thereof inclining to Melancholly.

As for the Prognostick. The Gout is no dangerous Disease, but very troublesom by the vehemency of pain, and of a very long continuance; so that for the most part it accompanies a Man during his life, to his old Age; yea, and it doth cause some to live long, because Nature at certain seasons drives unto the Joynts vicious Humors, which might cause other Diseases; and by so doing frees the nobler parts of the Body from bad Humors.

Yet doth it often fall out in weak bodies, or such as are decayed with Age, that when Nature can no longer expel such Humors as are collected in the inner parts of the Body, deadly Diseases do thereupon arise; as most sharp Feavers, Inflamations of the bowels, Apoplexies, Convulsion, Phrenzies, Difficulty of Breathing, and inability to breath, unless sitting upright, Pantings of the Heart, and other most grievous Infirmities.

Although a Disposition rooted in the Bowels tending to breed Goutish Humors, and Natural weakness of the Joynts cannot be perfectly taken away; yet may the Invasions of the Gout be very much retarded, and kept off; so that some only by abstaining from Wine, others by usual Purges frequently repeated, have kept themselves for many yeers free from the Assaults of this Disease.

Hippocrates in the Second Book of Predictions, affirms, That many Gouty persons may be cured, distinguishing them from such as cannot be cured, in these words: *Touching the Gout, this I say; All that are aged, or have stony knots about their Joynts, or live miserably, being costive, cannot be cured by Art of Man that I know of. Such are well cured by a Dysentery, when it seizes upon them; and by other fluxions of Humors to the inferior parts. But he that is yong, and hath no stony knots about his Joynts, and lives accurately, being inclined to labor, and having a belly well inclined to stool; this man having a skilful Physitian may be cured.*

An hereditary Gout may well be accounted incurable.

If the Veins of Gouty persons do swel with black blood, their Gout leaves them; out of *Avicenna.* because the Humors which were wont to flow into the Joynts, are derived to the external parts of the Skin.

If the Gout, being accustomed to return at certain seasons, shal not return, it portends grievous, and oftentimes deadly Diseases, unless the Morbifick matter by a diligent prevention shal be taken away.

way. For if through weakneſs of Nature, the matter which is gathered together within, ſhall not be expelled, it breeds the greateſt and moſt dangerous Diſeaſes imaginable.

Whoſoever they bee that have the Gout within the ſpace of forty daies the Inflammation is allaied, and they are freed. *Hippocrates* in the 49. Aphoriſm of the fifth Book or Section. For in ſuch Parts as have little Natural heat, the matter offending requires a long time before it can be diſcuſt. Howbeit this period of *Hippocrates* is not certain and perpetual; for ſome are healed ſooner, and ſome later; which depends upon the quantity, thickneſs, or rebellion of the Morbifick cauſes; the ſtrength or weakneſs of the Parts affected and the obedience of the Patients in Point of keeping the Diet, and uſing the Medicaments appointed for them.

The Cure of all Gouts conſiſts herein, viz. That the flux of Humors into the Joints may be ſtaied, that which allready is come in and abides in the Joints may be removed, and that the Pain may in the mean while (if it be ſharp) be abated; all which may be performed by the following Medicaments.

And in the firſt place, Letting of Blood will be very convenient, if there be no want of Blood in the Patient, and if flegm do not abound; becauſe the Blood is agitated by the motion of the Humors flowing into the Joints, and does as it were boil, and is by Pain drawn into the Part affected: wherefore it is neceſſary to draw the ſame back, into that Part of the Body which is oppoſite to the Part affected: and therefore if the right Arm be Diſeaſed, a Vein muſt be opened in the left; if the right Foot be Pained a Vein muſt be opened in the right Arm; and if the left Foot in the left Arm. And Blood is to be taken away at the firſt beginning of the Diſeaſe, and as much as needs muſt be taken at one time, if the Patients ſtength will bear it: if not, it muſt be done at ſeverall times, till the plenitude of Blood be ſufficiently diminiſhed.

One thing we muſt allwaies remember, that copious Blood-letting in ſuch as can bear it eaſily, does exceedingly ſhorten the Diſeaſe, if it be done at the beginning of the Diſeaſe, at leaſt by Piece-meal, drawing now a little and then a little.

Alſo Purging muſt be uſed at the beginning of the Diſeaſe, as ſoon as may be: for ſo both that Humor which is influx and is ready to flow, will be drawn from the way to the Joints and be brought unto the Gutts. But in this purgation two things are worthy of obſervation, being frequently noted by *Solenander* a famous practitioner.

The firſt is, that this Purgation be not made by ſome mild lenitive Medicaments, whereby the Humors are rather ſtirred than Evacuated, and are precipitated into the Joints, whereupon a more greivous Pain and ſwelling is wont to follow ſuch purges; but with ſome ſtrong purgative, which may force out the ſtirred Humor and turn the cauſe thereof from the Joints. The other is, that the Medicaments being given, the Joints above the Knees and elbows, be Plaſtered with ſome defenſative, by which the Humor which is put in motion by the Medicine may be intercepted, ſo that it may not ſo much nor ſo forcibly fall down into the Joints.

To which intent let an Oyntment be made of Bole, Pome-Granate Rinds, Balauſtians, Roots of Biſtort and Tormentill, red Roſes with the white of an Egg, and Vinegar; which being ſpread upon ſnipps of cloath as broad as ones Hand and indifferent long, let them be wrapped about the Parts aforeſaid. If theſe ſimples be not to be had at preſent, wet them only with Vineger and water and let them lie on at leaſt an whol day. If the Fluxion be vehement, uſe a liniment of Bole, Dragons Blood, the white of an Egg and Oyl of Roſes made with Oyl of unripe olives: or at firſt uſe it without Oyl adding a ſmall quantity of the Oyl aforeſaid or of *Unguentum Comitiſſæ*, leaſt growing dry and hard it cauſe Pain.

And for to procure ſuch a purgation as we have ſpoken of, let the skillful Phyſitian preſcribe a Medicament fitted to the Nature of the Patient and ſuch Humors as are redundant in his Body: or ſome of thoſe Specifick Purgations which we ſhall propound in our Doctrine of Preſervation from the Gout.

Vomiting is likewiſe profitable in this Caſe, for ſuch as are eaſie to vomit; becauſe it brings out the evil Humors by a ſhorter way, and ſo there is no ſuch fear leaſt they ſhould ruſh into the Part affected. But gentle Vomits are to be uſed, which do only evacuate thoſe Parts which are near the ſtomach. For if they be vehement, and draw Humors out of the Veins, they may precipitate the ſaid Humors unto the Joynts. Then after vomitings, purgation muſt be procured downwards; yea and if one purgation will not ſerve turn, it muſt be repeated.

After ſufficient Purgation, it will be very good to procure ſweat; for ſo the wheyiſh matter will be diſcuſſed by the habit of the Body. But, ſeeing when the Gout gives its firſt Onſet, there happens a kind of boiling and working of the Blood, and commonly there is a Feaver, hot ſudoroſicks will not be convenient, but only ſuch as are temperate; amongſt which *Sennertus* commends Harts-Horn, either crude, or prepared without burning, either alone, or with Carduus Water; as likewiſe *Antimonium Diaphoreticum*. In an old Gout without a Feaver, a Decoction of China Salſa Parilla or Saſſafras may be given, qualified with coolling Herbs, as Cichory, Endive, Sorrel and Borrage.

Borrage. Or after the Sweat is wiped off, it may suffice to give the Patient Chicken-Broth, altered with the Herbs aforesaid.

Martinus Rulandus did use this following Sweating Medicine with happy success:

Take *Tops of Centaury two handfuls: Asarum Roots two ounces: Boyl them in ten pints of Water to five pints, and strain the Liquor. Give the Patient eight ounces of this Liquor hot, in the morning some daies together; and let him sweat upon it.*

But *Forestus* commends the Roots of the greater Burdock; because it cuts, discusseth, and provokes both Sweat and Urine. And he reports that a certain Gouty person that kept his bed, and could not stir a Limb, drank hot Beer in which the great Burdock Root had been boyled; after the drinking whereof, when the Physitians could do him no good with all their Medicines, he pissd a great deal of white Matter like Milk, and was freed from his pains.

Hercules Saxonia puts a great many Loaves hot out of the Oven round about the Patients Body, by which means Sweat is plentifully procured, and the pains removed.

Also a Decoction of Elder, Bay-leaves, Sage, Rosemary, and such like Herbs wil do much good, the Patient receiving the vapor of this Decoction in a sweating Tub, which wil make the sweat to come lustily.

Also the Waters of Natural hot Baths do provoke sweat, and do readily discuss the Matter contained in the Joynts. And therefore when the sick are not able to go unto them, their Water is wont to be brought unto them and heated in a Caldron for them to bath in. *Erastus* in his 15. Counsel, prefers this above al others, for easing the pains, but he boyls so much Salt in the Water, as gives it an evidently brackish tast.

In the beginning of the Fluxion of Gouty Humors, in the spaces free from Purgations, such things must be given as stop the Flux, which have been propounded by me in the Cure of an hot Catarrh; especially Juleps of Waters, or Decoctions and Syrups which do cool and thicken.

Yea, and the truth is, We are sometimes compelled to use Narcotick or Stupefactive Medicaments; for they both stop the flux of Humors, and they mitigate the rage of the pains. Of these sort of Medicines new Venice Treacle is most convenient, which may often be repeated without danger from half a dram to a dram. Unto which may profitably be added, a little Bole-Armoniack to stop the flux of Humors. Howbeit, instead of Treacle, Laudanum Opiatum, and other Narcoticks, may conveniently be substituted.

After due Evacuations have been celebrated, and other things given inwardly which respect the antecedent Cause, we must proceed unto local Applications, such as mitigate the pain, and discuss the contingent Cause: Which are not presently to be used before the universal Remedies aforesaid have been first applied; for otherwise they are wont to do more hurt than good. For either the Matter which Nature intended to drive into the Joynts, is driven back into the inner parts of the Body, whereby grievous Symptomes are raised; or it is forced into the Joynts, and the pain is exasperated; or the part is effeminated, and made lax, and so the fluxion is encreased.

Which Cautions being commonly neglected, and external things untimely and heedlesly applyed; the Patients receive commonly more hurt than good thereby. And those external Medicines do either respect the pain alone, or the Cause likewise of the pain, viz. The Humor which hath took its course into the part, and caused both the pain and Swelling.

Such things as mitigate pain, are very necessary in this case, because the extremity thereof weakens the Patient, and draws the Humors to the parts affected. Furthermore, by the use of Anodines, the parts are relaxed, and the Humor which before did flow into the more deep parts about the Joynt, is diffused to the more ambient parts and external. Whence it is that the pains of the Gout are most vehement before the part swels; but after it is swollen they are mitigated. Now there are many Anodine, or Pain-charming Medicaments propounded by Authors to be applied to those parts which are troubled with the Gout. But the chief are these which follow:

Luke-warm Milk applied to the part affected, by wetting Linnen Cloaths therein, and laying them on, doth asswage the pain; as also if the part be sprinkled and bedewed therewith, especially when it comes fresh from the Dug; which *Amatus Lusitanus* doth very much commend, in the 41. Cure of his sixt Century, in these words: *One mightily tormented with the Gout, caused a shee Goat to be brought into his Chamber, and her Milk to be milked out upon his pained Joynt; by which he perceived the pains evidently lessened. And there is good reason for it: For Milk newly milked, doth asswage, mitigate, and lessen pains. It is a Medicine commonly used by the Great Turk: by you who seek Profit and Honor, highly to be prized.*

Of Milk likewise is made the Cataplasm of white Bread Crums boyled therein, adding the Yolks of Eggs, and a little Saffron.

Also the Leaves of Henbane, or Violets, are boyled in Milk, or in Vinegar and Water, and profitably laid upon the part affected.

Also a Cataplasm is made of the Pap of Marsh-mallow Roots mingled with Milk.

Also

Also a Cataplasm is made of the Pulp of Cassia alone, or mingled with Oyl of Roses, or the following Ingredients:

Take *Crums of white Bread boyled in Milk, half a pound: Pulp of Cassia three ounces. Make them into a Pultiß.* Or,

Take *the Pulp of Cassia four ounces: new Venice Treacle half an ounce: Barley and Oaten meal, of each three ounces: the Crum of white Bread four ounces: Cows Milk two or three pints. Boyl all into the form of a Pultiß, which apply warm to the parts pained. If you shall add half an ounce, or an ounce of Vitriol calcined and finely poudered, you will make it far more excellent.*

In the beginning of the Gout, which seizes only the great Toe, lay on this following:

Take *two whites of Eggs: a little Salt beaten to Pouder: a few drops of Vinegar of Roses. Mix all, and apply it upon Tow, or course Flax to the part affected.*

Other Cataplasms are likewise made of greatest efficacy, compounded on this manner:

Take *Water of white Mullein, and of Fern Root and Branch, of each half a pint: calcined Vitriol exquisitely poudered, one ounce and an half: Meal four ounces: Saffron two drams. Make all into a Pultiß.*

Take *Mallows, leaves and Roots, as much as you please, Boyl them in a new Earthen Vessel, with equal parts of Wine and Vinegar, till a third part be consumed; then ad as much course Rye Bran as will make it into a Pultiß; which being well wrought together and spread upon a Linnen Cloth, let it be applied to the parts pained, as hot as the Patient can endure it.* *Solenander* doth exceedingly commend this Pultiss.

Foresius relates that a Cataplasm made of Duck-weed and Chamomel Flowers boyled in Milk, adding a little Barley Meal, wil do miracles.

Montagnana affirms this following to be most excellent in extream pains.

Take *the Yolks of ten Eggs; beat them in a Frying Pan with half a pound of Oyl of Roses. Let them boyl gently till they grow thick, adding two drams of Saffron; and lay it on hot.*

In the beginning of the Flux, many lay on a Cataplasm of Salt and Soot, wrought into a Body with whites of Eggs.

Or of two ounces of Chamomel Flowers: red Rose Leaves one ounce and an half: Mullein flowers half an ounce: Pouder them, and boyl them in sweet Milk to the stiffness of a Pultiss, adding three or four Yolks of Egs.

Or of Barley Meal, and Bean Meal, of each one handful: Flowers of Chamomel and Roses, of each half a handful: Mullein Water, and Willow Water, or Plantane Water and Wine, of each as much as shal suffice. Incorporate all together in form of a Pultiss.

Also divers Fomentations may be made to be applied to the place affected, after this manner:

Take *of the Leaves of Mullein six pounds: red Wine a Quart. Beat the Leaves and steep them in the Wine for three daies. Distil them, and bathe and foment the parts affected therewith warm, with Linnen Cloaths dipped therein.* Or,

Take *Flowers of Mullein as much as you please; fill a glaß Bottle therewith, and stop the mouth, and set it in the Sun; for so they will turn to Liquor, which being applied to the part affected, with Linnen, mitigates the pain.*

Sal saturni, that is, Salt of Lead dissolved in subtil Spirit of Wine, easeth pains wonderfully.

Frog-spawn-Water stilled in *May*, applied to the parts pained, doth wonderfully asswage the pains, and tempers the Inflamation and redness of the part. These following Simples may profitably be mingled therewith.

Take *Frog-spawn-Water, Water of Tapsus Barbatus, or of Mullein, and of Fern, of each one pound and an half. Infuse therein Lapis tutiæ, and Litharge of Gold, of each two ounces: Vitriol calcined, and Allum, of each one ounce. Foment the pained Parts herewith warm.*

An Infusion of Litharge made in Vinegar, the Vinegar being a little evaporated, till it grow sweetish, doth much good to an hot Gout.

Oyl of Calves Feet is excellent to allay the pains of the Gout, and it is thus prepared:

Let the Calves Feet be beaten, and the Bones broken, then boyl them all to a Pap. Take the Oyl which swims on the top of the Water, mingle it with Aqua vitæ, and Salt, and therewith bath or anoint the parts pained.

Also Oyls and Fats are by many used. But seeing the Inflamation which befals those Members which are troubled with the Gout, doth draw very neer the Nature of an Erysipelas, or red fiery swelling, oftentimes those fat things may do more hurt than good; for by stopping the pores, they may keep in the Humor, and so encrease the pain.

According as *Semmertus* makes relation of a man troubled with the Gout, who found great good by very new Sheeps-milk Cheese laid upon the pained part: for as soon as the Cheese being heated by

the pained part, began to melt and shed its Butter, the pains were encreased. Yet in some Bodies, Oyl of Roses, and such like, may do good, especially mixed with other Medicaments; because according to the different Natures of Mens Bodies, several things do good to several persons. And therefore we must be furnished with a mighty company of Medicaments, that upon al occasions we may have change; because there is scarce any one so effectual, as to do good to al that are troubled. Take these following for an Example or Pattern.

Take *Crum of the whitest Manchet half a pound: Boyl it in new Milk to the consistence of a Pultiss; then ad of the Mucilage of Marsh-mallow seeds two ounces: Meal of Line seed and Fenugreek seed, of each two drams: Flowers of Chamomel, and of Melilot poudered, of each one ounce: Saffron one dram: Oyl of Roses one ounce:* Mix *all into a Cataplasm.*

Or to the Cataplasm of white Bread Crum before described, Oyl of Roses may be added.

Also Liniments and Oyntments are wont to be made to mitigate pain.

Take *Yolks of Eggs two or three: dissolve them with Oyl of Roses, or Violets, or Wine, and apply them luke-warm.*

Balsamum Saturni prepared with Oyl of Roses or Violets, allaies pain most effectually.

Take *Ceruss two ounces; dissolve it in Endive Water and a little Vinegar make thereof a Liquid Oyntment.*

Of the said Ceruss is made a Plaister of great efficacy which may be laid on in the beginning of the Disease, even whiles the Tumor and Inflamation is present. Its composition is thus.

Take *Common Oyl one pound, Wine a pint and an half: Boyl them till half the Wine be consumed. Then ad a pound of Ceruss finely Poudered and two drams of Camphire. Boyl them to the Consistence of an Emplaister. When there is great Inflamation, Vinegar must be used instead of Wine. Spread this plaister upon* Linnen Cloathes *that it may the more commodiously be wrapped about the Parts affected.*

A Living whelp laid to the pained Part, doth very much asswage the pain.

When the pain rages extreamly we may have recourse to Narcoticks; howbeit they must not lie long upon the Part, because they are adverse unto the naturall heat and to the nerves.

Take *Henbane Leaves two Handfuls: Nightshade and Housleek of each one Handful. Garden Poppy-Head one pugil, Mandrak Roots one ounce. Chamomel Flowers and violet Flowers of each one pugil, make a Decoction in Water or* Milk *with which let the Part be bathed.*

Beat the residue after the Liquor is strained out, and add of the Flower of Lin-Seed one ounce and an half. Wheat meal two ounces: Oyl of chamomel three ounces: and make a Pultis. Or,

Take *Spirit of Wine somwhat Yellow by infusion of Saffron four ounces: camphire one scruple: Boyl them a little, then dissolve therein, one dram of Opium: With that Liquor let the pained Part be bathed: It is a safe and most effectual Medicine.*

Green Tobacco Leaves beaten and laid on do ease the Gout, and are said to be of a stupefactive Nature.

As for the Efficient Cause of the pain, to the Humor flowing into the Part repelling Medicaments must be opposed; and to that which is allready in, deriving and resolving Medicaments must be applied.

Howbeit repelling Medicines are disallowed in this Case, especially alone and without the commixture of other things. For if they shal wholly stop the influx of the matter into the Parts affected, it is to be Feared least they retiring to the inward Parts, should cause dangerous diseases, unless they happen to be translated to some other Joynt. Again the Humor which hath already flowed into the Part, is the more driven inward, by which means, the Pains become more violent. But yet, if in the beginning of the Gout there be a great afflux of Humors especially hot ones, which threatens sharp Pains to follow, it will be convenient in some measure to repress the same, by applying repellers, not alone, but mixed with such things as mitigate Pain, after universal and sufficient Evacuations. For then such things as do overmuch relax, do help forward the afflux of Humors. And therefore, we may ad unto the foresaid cataplasmes and other remedies Plantane, Lettice, Purslane, Housleek and such like as also a little Vineger. As for example.

Take *Barley Meal three ounces: Boyl it in Water and Vineger, add two Yolks of Eggs, Saffron twenty grains: Make all into a Pultis.* Or,

Take *Red Roses an Handful: Barley and Fenugreek Meal of each one ounce: Red Sanders one dram and an half: Chamomel Flowers one pugil: when they are Boyled and beaten, add two Yolks of Eggs; Vineger four ounces: Oyl of Roses as much as shall suffice; make all into a Pultis.*

Among remedies which derive the Humor from the Part affected are Horse-Leeches, after sufficient Evacuation applied thereunto: for then they do much good, especially when the Veins in the Part affected, do seem distended and swelling with Blood.

Now resolving Medicaments are wont to be used in divers forms as of Waters, Oyls, Unguents, Balsoms, Fomentations, Fumigations, Cataplasmes, Plaisters and the like, compounded after this manner. Take

Take *Vitriol white and green, of each one ounce: camphire two drams: aqua vitæ and white Wine, of each one pint: Mix them and apply them with cloathes dipped in them.* Or,

Slake Lime in Urine, purifie the Liquor and foment the Pained place therewith It is likewise good if it be done with Vineger and Lime.

Martinus Rulandus in the Centuries of his Cures, doth mightily cry up his Gout-quelling Water, but never describes the same. But Libavius, Petreus and others suppose it was thus made.

Take *Fountain Water a Pint, Aqua fortis half an ounce: Sublimate one dram: Boyl them a quarter of an hour. Wet linnen cloaths in this Liquor and apply them luke-warm to the Part affected.*

Quercetanus in his *Pharmacopœia* propounds these following.

Take *Pickle of salt, and the Urin of a Boy of each Equal Parts. Still them and Wet Linnen Cloathes in the Water and apply to the place affected, often changing the cloathes for fresh ones.*

Take *Green Elder Leaves and flowers of each one pound: beat them and steep them in Aqua vitæ for two or three daies: still them in a Glass or Copper vessel, till they be dry.*

Take *Spirit of Wine rectified two pounds: of the finest honey one pound. Distill them in* Balneo Vaporoso: *So you shall still two Liquors; The first is watrish; The second much stronger, and Sulphureous, which you shall keep by it self. To the remaining materialls add an ounce and an half of whol Oriental saffron: Venice turpentine two ounces: Castoreum six drams: Tartar calcined till it be white, half a pound; dissolved salt an ounce: Phlegm of vitriol not separate from its spirit four ounces, Lie made of Vinetree-Ashes two pound: steep them together twenty four hours. Then still them til they become dry: keep the Liquor which comes likewise by it self. To the Dreggs remaining pour on the former Water which you kept: Steep them and still them. Lastly put all the distilled Waters together and distill them in* Balneo Vaporoso.

Quercetanus saies, That this Water is of wondrous efficacy, and that it was communicated unto him by a certain most famous German, as a special guift, affirming, that this was the very Water of *Rulandus*. And he averred that he had seen the rare effects thereof in easing the Pains of the Gout, if Linnen cloathes being moderately warmed and dipped therein, be applied to the Part affected,

The same *Quercetanus* in his Councel touching the Gout, doth brag that he reserves to himself his Gout-quelling Water, as a Master-peice for such an old-soldier as himself to boast of which he saies is made of plain Fountaine Water, wherein he doth divers times quench certain Metallick substances, which are wont to be taken inwardly when rightly prepared: whose spirits being impressed into the foresaid Water, do contribute thereunto the power of penetrating unto the Roots of the Disease, and of truly resolving the Tartarous, stony matter, with the salts, which are combined in the Joynts, from whence such intollerable Pains do arise.

Peradventure this that follows it not unlike it, nor a whit inferior in Virtue.

Take *Unslaked Lime four pound: Slak it in River-water as much as you please, and let it stand in a Wine Cellar three daies, that the Salt may be better extracted out of the Chalk or Lime. Afterward let them Boyl a little and strain the Liquor through an Hippocras Bag. In twenty pints: of the strained Liquor, quench seven or nine times; first Plates of steel red hot; & then Plates of Copper red hot; and thirdly to the quantity of ten ounces of Vitriol calcined till it be white; fourthly Antimony melted in a Crucible to half a pound; fifthly Litharge or Ceruse heated in a Crucible, half a pound; white Precipitate once washed and no more one ounce and an half. Brass burnt and finely Poudered, half an ounce: After the quenching of these mineralls, let the water stand still in a Wine Cellar, the space of ten daies. Afterward, Boyl it a little, and strain it through an Hippocras Bag. In this Water being hot, doubled cloathes must de dipt and frequently applied to the Gouty Part.*

Among Fomentations easie to make, that is commended, which is made of Salt Ammoniack seven times sublimed, and fitly dissolved in Wine or Water. or of the Urin of a young man in good health, Boyled till half be consumed and laid on with Raggs;

Solenander Writes in his 24. Counsel, Section the 4. That a certain Gouty old man was wont to make himself this Medicine. When the swelling and Pain was great and the place red, he took Salt, the Urin of a Boy and Vinegar. In these being mingled together, he Wet a Linnen cloath and squeesed it and laid it on, this he did divers times and so the Pain was much abated,

As we said before, that Anodine or Pain-quelling Oyls did little good in the Gout, the same must here be said of resolving Oyls, beeause they close the pores of the skin and so hinder the freedom of transpiration and encrease the heat, neither can they by reason of their clammy substance peirce into the innermost Parts of the Joint, so to temper and resolve the Salt, sharp and Tartarous Humors which lurk in them, Yet if the foresaid Oyls shall be Distilled in a Retort, they will become very fit for this use, because they will be very searching and no waies clammy. Among these the most excellent are Oyl of Cheiry, Saint Johns Wort and of the Yolks of Eggs, which being mixed together

and ſtilled by a retort, are very profitable to eaſe Pain and to diſcuſs the Cauſe thereof.

Alſo *Mathiolus* his Oyl of Scorpions ſtilled after the manner aforeſaid, is moſt excellent.

Oyl of Wax is likewiſe effectual to the ſame purpoſe.

But Oyl of Mans Bones made after the ſame manner that Oyl of Tiles is made, is preferred before all others, and commended not only by the Chymiſts, but alſo by the Dogmatical Doctors, as *Crato*, *Platerus*, and others. The manner of making it is this: Mans Bones freſh and unburied, are broken and burnt, and caſt into old Oyl: afterward, they being full of the Oyl, are beaten and caſt into a Retort, and ſo by the force of the fire, an Oyl is drawn out.

Where Mans Bones are not to be had, the Bones of other Animals may ſerve the turn.

This following wil alſo be very good:

Take *Maſtich, Frankinſence, Mirrh, Ammoniacum, Opopanax, Bdellium, Mummy, of each two ounces: Vitriol one pound: Honey two pound: Tartar one ounce and an half: Spirit of Wine four pound. Diſtil out of all an Oyl, with which let the pained part be anointed with a feather.*

To eaſe the pain, and to reſolve the Matter of the Gout, a Liquor made of Snails is likewiſe commended, which is thus compounded:

Put an handful of Snails into an Hippocras Bag, and caſt upon them an handful of common Salt; upon the Salt, a handful of Dwarf-Elder, or Danewort ſeeds very finely poudered: And ſo one Lay after another of Snails, Salt, and Seeds, until you have made four or five Lay's of every one in particular. Let the Bag hang in a moiſt Celler; and after a few daies there will drop a ſlippery Liquor and fat; which ſet in the Sun for four daies, and then ſmear the place affected therewith.

A reſolving Unguent may be made after this manner:

Take *Chamepitys, common Wormwood, and Roſemary tops, of each a handful: Chamomel flowers, Melilot flowers, and Roſe Leaves, of each one pugil: Oyl and Wine, of each half a pound: Let them boyl till the Wine be conſumed: the Liquor being ſtrained, add thereto as much Wax as ſhall ſuffice to make it into an Oyntment. Let the Part affected be anointed herewith warm; within twenty four hours the Part doth ſwell, and the pain ceaſeth.*

Alſo divers Pultiſſes reſolving and eaſing pain, may be made. The principal are theſe:

Take *Wheaten Bran a pound: Salt one ounce: Soap as much as ſhall ſuffice. Boyl all into a Cataplaſm, or Pultiß.* Or,

Take *Bean Meal half a pound: Boyl it in a ſufficient quantity of Wine, adding thereto a little Aqua vitæ and Butter. Make it into a Pultiß.* Or

The Leaves of Dwarf-Elder, or Tree-Elder being beaten, may be applied; or they may be fryed with Butter in a Frying-Pan like a Pan-cake.

Briony Root bruiſed with Aqua vitæ, is alſo very effectual.

Alſo ſome commend Aron, Cuckoo-pintle, or Prieſts-pintle Roots, being mingled with Cow-dung.

This following is commended by *Solenander*, becauſe it reſolves without any great heating, eaſeth the pain, and ſtrengthens the Joynts. And it may be ſafely applied after the beginning of the fit, about the fift day of the Diſeaſe.

Take *Pouder of red Roſes two ounces: Maſtich one ounce: Camphire half a dram: Barley meal half a pound. Boyl all in white Wine, evermore ſtirring the ſame, till it come to be thick, and lay it on warm.*

Emplaſters are likwiſe wont to be of great uſe in this Caſe. The chief are theſe which follow.

Take Frankincenſe, Mummy, Colophony, of each one ounce: Maſtich, Mirrh, *white Coral, of each half an ounce:* Mans Fat *ſix drams: Gum Ammoniacum, and Bdellium diſſolved in Vinegar, of each three Drams: Turpentine half an ounce: Oyl of Foxes, and of Roſes, of each as much as ſhall ſuffice to make all into a Plaiſter.*

Take *Florentine Orice Roots, and Hermodactils poudered, of each ſix drams:* Emplaſtrum Oxycroceum, & de Mucilaginibus, *of each two ounces: Rozin of Pine one ounce. Melt them together, adding Oyl of worms as much as ſhall ſuffice, and make thereof a Plaiſter.*

Emplaſtrum Diapalma, or *Diacalciteos*, is very much uſed, both alone, or with Camphire added thereunto, after this manner:

Take *of the Rowl of Diapalma Plaiſter half a pound: Camphire two drams. Mix them together, and apply them to the parts affected.*

Or in Form of a Cerecloth.

Take *of the Rowl of Diacalciteos Plaiſter half a pound: Plaiſter of Sulphur an ounce: Storax and Benzoin, of each half an ounce: Tacamabacca two ounces: Oyl of St. Johns wort, and Worms, of each an ounce: Liquid Storax an ounce and an half: New Wax, as much as ſhall ſuffice. Melt all together, and dip your cloth therein, twice or thrice, make it ſmooth and dry, and keep it for your uſe.*

But yet the ſame Plaiſter mingled with theſe things following, ought to be reckoned amongſt the moſt excellent Medicines for the Gout.

Take *Diacalciteos Plaiſter diſſolved in harſh red Wine, and boyled till the Wine be conſumed, one pound: Myrtles, red Roſes, Maſtich, Tartar of red Wine poudered, of each two drams: Chamepitys, or Ground-pine, and right ſweet Chamomel poudered, of each half a dram. Make of all a Plaiſter, to be applied after the ſwelling is much abated.*

And at laſt, in a very old and ſetled pain, eſpecially from a cold Cauſe, ſome lay Veſicatories to raiſe Bliſters upon the parts affected. *Sennertus* makes mention of them, but ſo as that Anodines be mixed with them. But the moſt wiſe *Varandæus*, my Maſter, did with happy ſucceſs uſe the common Veſicatory Plaiſter, which is kept in our Shops, ſimply, and by it ſelf without any mixture; wherewith he cured a great and rebellious Swelling upon the Knee, when other Phyſitians had in vain uſed many Purgations, a Sudorofick Diet-Drink, and many External Medicines.

In the uſe of all the fore-recited Medicaments, this one thing is diligently to be noted, That we muſt take our hints from ſuch things as we find do help or harm the Patient: foraſmuch as the Natures of Men are divers, their Complexions divers, and divers kinds of Excrements are bred in ſeveral Men, whence it is that the ſame Diſeaſes do extreamly differ in ſeveral perſons: therefore what profits one man, doth another no good at all; which often comes to paſs in curing the Gout. And for this Cauſe, every Practitioner muſt have an abundance of Medicines, that when one hath been applied in vain, he may uſe another and another, making alwaies choyce of ſuch as a rational Mechod ſhall moſt approve of.

When the Gout becomes ſtony and knotty, it is extreamly hard to cure, eſpecially if it be of long ſtanding. But new knobs may with Emollient and Reſolving Foments, Unguents, and Plaiſters, be diſſolved. The moſt Speciſick or Appropriate, are theſe which follow.

Galen exceedingly commends a Plaiſter compounded of old ſtrong Cheeſe, made into a Plaiſter with the Decoction of a poudered Sows peſtle or Leg.

Others boyl poudered Sows Legs, till they come to a ſlimy ſubſtance or Gelly. Afterwards they mingle therewith two parts of old Cheeſe, pouder of Water-creſſes one part, and ſo make a Plaiſter thereof. Or,

Take *Juyce of Tobacco three ounces: yellow Wax two ounces: Rozin of the Line-tree an ounce and an half: Turpentine one ounce: Oyl of Chamomel as much as ſhall ſuffice. Make all into a ſoft Cerate or Plaiſter.* Or,

Take *of thoſe Eaſtern Berries, which the French call* Coques de Levant, *and Mirrh, of each half a pound. Pouder them, and mix them together with ſtrong Vinegar into the form of a Cataplaſm.*

Gum Ammoniacum diſſolved in Vinegar, doth powerfully ſoften.

Rulandus anoints thoſe hard Swellings in the morning, at noon, and in the Evening with Oyl or Balſom of Sulphur hot, and then he laies on a Plaiſter hot, of *Emplaſtrum Diaſulphuris.*

But this Plaiſter following, is your rare Plaiſter, becauſe beſides eaſing the pain, it draws the gritty, ſtnoy ſubſtance out of the Joynts likewiſe.

Take *Roman Vitriol one pound: Roch Allum half a pound: Salt four ounces. Calcine all theſe together in a Crucible or Earthen pot, letting it to ſteem ſo long till the ſpirits ſhall begin to go away. Which when you perceive by their ſmel to riſe, leave preſently your calcining, and let all cool, and then pouder them.*

Take *of this Pouder, and Barley Meal, of each a like quantity; mingle them with Wine Lees to the form of a Pultiß, which ſpread upon a rag as thick as a knife, and apply to the place affected. When it is dried, diſſolve it again with Lees of Wine, and apply it again, until in the firſt place the pain be diſcuſſed; and in the next place, until all the ſtony ſubſtances be conſumed out of the knobbed and knotted Joynts. In the mean while it fals out often that the Skin will break, which need not affright us; for either afterwards the Ulcers cloſe of their own accord, or at leaſt by laying Wax upon them in manner of a Plaiſter, they are cloſed up, the Joynts having regained their motion with activity.*

Finally, If the Gout be very exceeding old, and perfectly knotted, by the preceding Cure a mitigation of pain is to be hoped, but the ſtony ſubſtances wil hardly give way; therefore with a gentle Cauſtick the Skin is to be opened, and then the ſtones are to be taken away with a drawing Plaiſter of Gums.

The Cure of the Gout when preſent, is performed by the Remedies aforeſaid. But becauſe this Diſeaſe is wont to return by fits, eſpecially in the Spring and Fall, we muſt now ſhew the way to prevent the ſame. Which Prevention ought to aim at the hindering of any Gouty Matter, like to fall into the Joynts, from gathering in the Body; or if any be collected, that it may be carried away.

And

And finally that the Joynts may not be so disposed to receive the Humor which flows unto them. The collection of Matter will be hindred, by an excellent Diet, and by Medicines rectifying the distempers of the Bowels. The Matter collected will be carried away by Evacuating Medicaments. And the Joynts will not so easily receive if they be fortified with corroborating Medicaments.

As for the Matter of Diet, although in this Case it be of very great, yea greatest moment, yet the Nature of this work will not give me leave to describe the same.

I shall only speak of the Patients Drink so as to say, that Wine is extream hurtful to all Gouty Persons, and many have recovered only by abstaining therefrom. Yet if the Patient in regard of some other Infirmity cannot wholly abstain from Wine, let him drink weak Wine, or well allaied with Water. *Hollerius* instead of Wine commends thin Metheglin viz. Of forty or forty eight Parts of Water to one of Honey. Yet this suites not with such as abound with bitter-choller and those that are dry and thirsty.

This following Diet drink suits all Natures, and hath done much good to very many persons.

Take *Salsa parilla Roots two ounces: Liquorish one ounce: Cinnamon and Annise Seeds half an ounce: Make all into a very fine Pouder. Of this Pouder mix one spoonful with so much smal Beer or ale as the Patient is wont to drink at a Meal. Brew them together out of one Pot into another three or four times. Then strain the Liquor for the Patients ordinary drink. Doing the like for every Meal.*

And as for Evacuations, Bleeding must be first practised especially in the spring and fall, in such as abound with Blood and whose blood is wont to work and ferment or be very hot.

But Purgation is not only to be used spring and fall, but four times in a yeer, yea and every month in every Cacochimical Body that is which abounds much with evil Humors. To which purpose many forms of Purgations are handed to and fro, of a special property for this Disease. These that follow are the chief, which are so to be used by the discreet Physitian, as that he must make many changes, both in respect of the materials and the Dose, according to the various Constitutions of the Patients,

Take *Senna cleansed, Turbith, Hermodactiles and Pouder of a Mans Skull that hath never been in the Earth of each one dram: Diagridium half a dram: Make all into a Pouder of which give one dram: at a time, in Groundpine Water, or in Broth.* Or,

Take *Salsa parilla one ounce: Senna six drams: Turbith, Hermodactiles, Jalap, Mechoacan of each half an ounce: Agarick Trochiscated two drams: Diagridium and Cinnamon of each half a dram: Make all into a Pouder. Steep a dram thereof in white Wine all night, in the Morning let the Patient drink Pouder and Wine.*

Electuarium Caryocostinum is by Petrus Bagerus exceedingly commended, and is approved by al Practitioners, and it is described in the *London Dispensatory* in Folio 111. and in that of *Bauderon*. It is given to half an ounce: But in hot Constitutions it may do harm.

Rhasis Commends his Pils so far as to say, that they can make such as are fain to Ride, to go on Foot again. Thus they are made.

Take *Aloes of the best half an ounce: Red Roses two scruples: Hermodactiles white and purged from their outmost Skin or shel, one dram and an half: Diagridium one dram: With Water of Ground-Pine and honey of Roses make all into a Mass of Pils. the dose one dram.*

These also are good which follow.

Take *Aloes, Hermodactiles of each half an ounce: Groundpine, or Chamepitys two drams: Chamædris or Germander, Stœchados of each one dram: Saint Johns Wort Seeds, half a dram: With Venice Turpentine make a Mass of Pils, which because they Purge little may be given the oftener.*

Also Evacuation by Vomit is very good for Prevention if the Patient can bear it well; which is declared by Altaharavius a famous Physitian in these words. *A Vomit is better than a purg to Root out such ill Humors of a gross Nature as are below the Knee even to the Foot; as in the Knee-Gout, Sciatica and such like.*

Now Vomiting may be procured every Month two daies together because the second day drives out the Reliques of the first. And some have observed that vomiting is more successful than ordinary when e y instit. is in a Sign that chews the Cud, such as the Bul & the Goat or Capricorn. It is good to Vomit [illegible] after Supper the Patient having eaten divers Meats, Fat, sharp of Salt or Spice &c. and others in great Quantity, and afterward rubbing his stomach and putting his finger into his throat. And if that will not do, he must take a Vomit, especially of Afarum and Broom Boiled together and the Decoction drunk, which are otherwise good in the Cure of the Gout,

That Evacuation likewise which is made by sweat, Purges the Blood from wheyish excrements, and draws out the antecedent Cause of the Gout. To this Purpose a Sudorifick Diet drink may be ordered for the Patient Spring and Fall, of a Decoction of Sallaparilla, China, Sassafras, or of Guaiacum, as the temper of the Patient shall advise,

But

But ſome late Phyſitians have brought into uſe, a Decoction which carrieth away the Matter meerly by inviſible Tranſpiration through the Pores of the Skin, without any ſweat at all, which hath done a world of good. Its Compoſition and uſe is thus:

Take *Sarſaparilla, Crude Antimony, Nut-ſhels, of each ſix ounces: China Root one ounce: A little Braſil Wood: Water nine pints: Boyl them to four pints and an half. Let the Antimony and Nutſhels be poudered and tied in a cloth, which muſt be ſo hanged in the pot that it touch not the bottom. Let him take a good draught of the ſtrained Liquor, on mornings three hours before dinner; in the afternoon four hours after dinner, and three hours after ſupper, for fifteen daies together. Bleeding and univerſal Purgation being premiſed.*

Of the Grounds remaining in the Strainer with like quantity of Water, may be made a Diet-Drink for ordinary uſe inſtead of Beer. Boyl the Water half away, and ad Coriander and Liquoris as much as ſhall ſuffice to give it a good ſmack.

To prevent the Gout, and to root the ſame out of the Bowels, ſome Practitioners commend the uſe of Gout-quellers given an whol yeer together, whereby they avouch many have been perfectly cured. Among many of their Receipts, this is the Principal.

Take *Salſaparilla four ounces: St. Johns-wort ſeeds, Groundpine, and Germander Leaves, of each three ounces: round Birthwort ſix drams: Angelica three drams: Cinnamon three drams: Cloves four ſcruples: Saffron two ſcruples. Let all be finely poudered and incorporated with Spaniſh Honey clarified as much as ſhall ſuffice. Make all into an Electuary, which let the Patient uſe a yeer together, taking every day in the Spring, Fall, and Winter, one dram and an half; in the Summer only one dram. Let the Patient forbear to take it in the Dog-daies. Let him wholly abſtain from Wine and Lechery.*

Peradventure the Decoction of Germander may be of the Nature of the Gout-quelling Medicaments our Practitioners talk of; which was therefore commended to the Emperor *Charls* the Fifth exceedingly by the Phyſitians of *Genoa*; and *Solenander* doth teſtifie, That very many who drank this Medicine threeſcore daies together, were pertectly cured. The Compoſition of this Decoction is thus:

Take *Germander gathered when it flowers, and well preſerved, one handful: Ripe Wine not very ſtrong, nor very ſmal, three pints: Boyl them in a double veſſel five hours. Let the Patient take a draught of the ſtrained Wine, and compoſe himſelf to ſweat. This is to be done after the Patient hath been purged.*

And it is here to be noted touching thoſe hot Medicines, that they are not only unprofitable for hot Conſtitutions, but they cauſe ſuch Reſolutions of Humors or Joynts, or other inconveniences, as can never be cured, and therefore they muſt be given with great Caution.

Peradventure this following Electuary may be uſed with more ſafety and ſucceſs, which doth purge the Body by little and little from all ſuperfluities without heating the ſame.

Take *Senna half an ounce: Turbith, Hermodactils, of each ſix drams: Lignum Guajacum, Saſſaphras, and Salſaparilla, of each half an ounce: China Roots one ounce and an half: Nephritick Wood two ounces: the three Sanders, of each one ounce: Annis Seed two drams: Honey very well clarified fourteen ounces: make all into an Electuary. The Doſe is one dram every day in the whol yeer, except the Dog-daies.*

Among the common People, ſome hold it for a great Preſervative from the Gout, to ſwallow three Cloves of Garlick whol every morning for a month together. For they heat and ſtrengthen the Stomach, without heating the Liver, or other Bowels; for they are voided forth with the Excrements whol, but boyled and wrapped in clammy Flegm, which they bring from the Stomach and Guts.

In the Gout proceeding of Chollerick Humors, Waters of Medicinal Wels, which are Acid, Vitriolate, and cooling, ſuch as that of *Tunbridg* in *Kent*, Blackbois not far from *Lewes* in *Suſſex*, one in the Pariſh of *Sandherſt* in *Kent*, do very much good. So that by the uſe of ſuch Waters, ſome perſons have been for a long time freed from the Gout.

To the ſame purpoſe *Hippocrates* commends in his Book of Diſeaſes, the uſe of Aſſes Milk, which Experience ſhews hath done good to many Gouty perſons.

And in a word, All things which are good againſt an hot diſtemper of the Liver, and to ſtrengthen that Bowel, wil be good in this Caſe, as they are deſcribed before in the Cure of the hot diſtemper of the Liver.

But if a wheyiſh Humor flowing from the Brain be Cauſe of this Diſeaſe, as moſt commonly falls out, the greateſt care muſt be had of the Brain; viz. That its diſtemper may be corrected, and that the Humors bred therein may be derived and diſcuſſed. To which intents; Iſſues, Veſicatories, Medicines to be drawn up into the Noſe, Maſticatories, Pouders, Spiced Caps, will be very ſerviceable; and other Remedies propounded in the Cure of Diſeaſes of the Brain.

The last Point of Prevention, is to strengthen the Joynts that they may not so easily receive the the Humor flowing in. Yet it is to be noted, that strengthening Medicaments, are not only Vain but hurtfull also, unless the antecedent Cause, and the Humor ready to flow into the Part, be carefully removed by the foresaid Medicaments. Otherwise those strengtheners, either are not able to hinder the influx of the Humors into the Joynt: or if they do hinder the same, the Humors retire to the more noble Parts of the Body and raise much worse Diseases.

Among the principal strengtheners the pressings of Grapes viz. their Seeds &c. are reckoned, which discuss the reliques of the Morbifick Matter by their actual heat, and by their astringency, do very much strengthen the Parts. *Duretus* upon *Hollerius* doth thus commend them. *But the use of Vine-Grape Kernells doth exceedingly profit in the time of Vintage. If the pressings of the Grapes be brought out of the Wine Press into a Barn and being covered with Blankets do there grow hot. In them let the Patient thrust his Feet, Legs, Thighs, Arms, or his whol Body. I have tried it* (saith he) *an hundred times, there is no better thing under the Cope of Heaven.*

And *Solenander* in his Counsel 21. Sect. 4. Doth give the foresaid Medicine this commendation. *But among the best and safest remedies, (which do also strengthen the Parts affected, and do cherish the innate heat,) is this to be reckoned, and diligently once every yeer (for oftner it cannot) to be practiced, viz. That in Vintage time, the Feet and hands affected, be whelmed in pressings of Grapes hot from the press, or made hot with warm Wine, every Morning for fifteen daies. And I could name a worthy Personage, to whom I have communicated this Medicament, and received from him a very considerable Gratuity; therefore who could not go at all, and by this Medicine and Gods Blessing, he was restored. And by how much the Grapes are riper, by so much the more good, will the pressings do in this Case.*

Sulphureous and Nitrous bathes such as the Balerucane in *France*, do not only discuss the Matter of the Gout, by provoking sweat, as was said before; but also by strengthning the Joynts, they do much conduce to the Prevention thereof; as also being used by way of Embrocation, that is the Head being wet therewith or it being pumped upon the Heat, Cotton wet therein be at last laid on and made fast. The mire of the said Bathes applied to the weak Parts, doth likewise strengthen them.

Where the benefit of Natural bathes cannot be had, the Feet may be washed and other Parts Fomented, with a Decoction of nerve Herbs, some astringents being added thereto, as Balaustians, Mirtill. Cypress Nutts, Alium, and Salt, with Iron-quenched Water and red Wine.

Also Oyntments are commended, being frequently used, made after this manner.

Take *Oyl of Mirtles or Roses two ounces: Salt two drams: Mix them and make a Liniment.* Or,

Take *Oyl of unripe Olives Oyl of Mastick one ounce: Salt fried in a pan two drams: Bole Armoniack three drams: Dragons Blood, Hipocistis, Frankinsence, Mastich, of each one dram and an half: Let each Particular be first finely Poudered by it self, then with the Oyls mix them into the form of an Oyntment.*

The Plaister called Emplastrum Diapalma is very good to strengthen the Joynts: and its useful in all Gouts whatever the Humor be which offends. and *Solenander* writes in Counsel 25. Sect. 4. that he hath known some, who had wont to be often troubled with the Gout, and by the continual use of this Plaister, with frequent purges taken at certain distances of time, they were freed from those Pains for five years together. And this Plaister doth not daub and foul, doth not raise Itch or Pimples, nor is it troublesome by its smel or any other evil quality. And it is fitted to the shape of the member. When the Feet are troubled shoes are made of thin Leather which being smeared with this plaister are put upon the Feet. The like spread with this Plaster may be applied to the Wrists and other Parts. But the truth is, the same Plaster boyled in Wine and mingled with Pouder of Myrtles, Roses, Tartar, Chamepitis or Groundpine and Chamomel, so as we described before in the Curation, is much better for the same uses. And we have seen Gouty persons, who continually wore such a Plaister upon their Feet and Wrists, with most happy success.

Chap. 2. *Of the Hip-Gout, or* Sciatica.

THe Pain of the Sciatica or Hip-Gout, doth herein cheifly differ from other sorts of the Gout, because in those the Pain possesses only the Joints; but this, it is not only in the Hip, but it holds the top of the Buttock also, the Loins and the *Os sacrum*, and reaches into the Thigh and Leg even to the very Foot. Which comes to pass by reason of Nerves arising out of the Loins and *Os sacrum*, which are carried unto the Hip, and are from thence derived and spread unto the Thigh, the Leg and Feet.

The Cause of this Pain is the same which was propounded in other sorts of the Gout.

It

The knowledg of this Diſeaſe is taken from the Part affected: from whence it alſo took its name, for the Pain doth eſpecially affect the Region or Part of the Huckle-bone, for it hath this property, that no Humor, nor Inflamation or change of the color appears as is wont to be in other ſigns of the Gout: becauſe the flowing Humors do inſinuate themſelves into more profound or deep Parts, & into ſuch as are larger, and covered with much fleſh, and they are not diffuſed into the ſurface of the body nor the very Skin as in other Gouts.

This peculiar Prediction belongs to the Hip-Gout, that if it continue long it puts the Hip out of Joynt: for a wheyiſh and flegmatick Humor doth inſinuate it ſelf into the Hollow of the Joynt which is very large, and if it bide there long, its thinner Part is diſcuſſed, the thicker remaining, which becomes ſnotty and ſoftens and looſens the bands which knit together the bones which belong unto that Joynt; ſo that the Bone of the Hip falls from its Socket, whence follows Luxation, and thereupon limping or halting, and a Conſumption of the whol Thigh; becauſe the Bone being ſlipt out of its ſeat, doth preſs upon the Muſcles, Veins and Arteries, by which means motion is hindered and Blood and ſpirits cannot conveniently flow into the inferior Parts. The foreſaid Doctrine is confirmed by two Aphoriſmes of *Hippocrates*, viz. The 59. of the 6. Section. Such whoſe Hip after long pains, ſlips out of Joynt and in again, they have Snotty excrements in that Part. and the 60. Aphoriſm of the ſame Section; Such as being troubled with long Pains of the Sciatica, come to have their Hip diſjointed, their Thigh Conſumes and they halt, except they be burnt.

The Cure of the Hip-Pain hath many things common with the other ſorts of Gouts; yet in many things it differs becauſe of the ſtructure and Largneſs of the Joynt; therefore it is to be diſtinguiſhed from the former Gouts, and to be handled in this Chapter by it ſelf.

And in the firſt place a Cliſter or Gentle Purgative being premiſed, the Vein of the Arme on the ſame ſide muſt be opened for revulſion ſake: afterward for derivation ſake, the Vena poplitis muſt be opened about the Knee, or that Vein near the outward Anckle-bone, which is called the Sciatica Vein, becauſe of the great good which the opening therefore is wont to do in this Diſeaſe; which alone being opened doth often heal this Diſeaſe.

It is wont to be opened on the Leg of the ſame ſide the Gout is on. yet hath it done much good being opened on the contrary ſide, and hath been ſeen ſuddenly to take the Pain quite away.

Galen *in his Book of Blood-letting, Section* 18. *I remember* (ſaith he) *that I have Cured divers troubled with the Sciatica in one day, opening a Vein in their Thighs; viz. the Cauſe being, not from cold, but fullneſs of thoſe Veins which are in the Hip; ſo that a Vein opened about the Ham or Knee, is more Proper and commodious in ſuch caſes, than in the Ankles.*

Alſo Blood drawn out of the Hemorrhoids by Leeches, doth wonderfully help thoſe that are Hip-Gouty, becauſe the Blood contained in the Veins of the Hip is thereby drawn out: for there is the greateſt Conſent & fellow-feeling that can be between theſe Parts by means of their Veins.

Strong Purgations are proper in this caſe; for lighter purges do rather precipitate the Humors into the Parts affected. And therefore the Arthritical Pouders are moſt convenient, Carpocoſtinum, Pils of Hermodactils and ſuch like. The Chimiſts do ſometimes ſucceſſfully uſe Mercurial and Antimonial purges in ſtrong Bodies.

Mercurius dulcis with Scammony or other purgatives given frequently, doth powerfully eradicate the Humor cauſing this Hip-Gout.

Many preferr Vomiting Medicaments before purgatives, becauſe they Evacuate the Humors by a place more remote from the Part affected. *Rondeletius* prefers Atarum before other Vomitories.

After ſufficient Purgation, we muſt proced to local Medicaments. And as for repelling Medicines, they are no waies convenient, becauſe it is to be feared leaſt the Humors be ſo much the more fixed into the Part affected; but at the beginning Reſolving things muſt be applied; firſt milder and leſs hot, leaſt they ſhould attract the Humors more into the Part affected; after ſuch as are more vehement, in this manner.

Take *Briony Roots two pounds: Dwarf-Elder Roots one pound: Juniper Berries half a pound: Leaves of Groundpine, Mint, Marjarom, Sage, Roſemary, flowers of Chamomel and Melilot of each four handfulls: Make a Decottion for a bath to ſit in, which let the Patient ſit in twice a day for two or three daies together. At the beginning the Decoction may be made of Water alone afterward in Water and White Wine.*

With the ſame or like Decoction hot, may the Part Pained be fomented frequently.

Alſo Bags may be prepared of Salt, Millet and Bran fried with rich Canary in a frying Pan and laid on Warm.

Or, Bags very effectual may be made only of Juniper Berries beaten and fried in a Pan as aforeſaid.

Alſo anointings will be convenient of Oyl of Chamomel, Oyl of Dill, Orice, Nard and Rue;

which by relaxing the exterior Parts, will draw the motion of the Humors to themwards, by which means the inner parts wil be less affected.

Oyl of Scorpions of *Mathiolus* anointed on, wil be very effectual.

To resolve more powerfully, The *Aqua Balsami Guidonis*, being anointed on, wil be exceeding good.

Oyntment of Marsh-mallows doth loosen the external parts, and doth gently discuss the Morbifick Matter; therefore towards the beginning, the whol Thigh may be anointed therewith, and the Legg to the Foot by a flaming fire.

In the Progress of the Disease, this following being hotter and stronger, may be used.

Take *Oyl of Worms, Tiles, Turpentine, of each two ounces: Oyl of Foxes one ounce: Gum Ammoniack, and Sagapenum dissolved in Aqua vitæ, of each six drams: Fat Castoreum three drams: Euphorbium two drams: Wax as much as shall suffice. Make all into an Oyntment.*

Spanish Soap, or Castle Soap dissolved in Spirit of Wine, is most excellent, smeared on by the fires side.

Oyl of Tiles or Bricks alone, being anointed hot, after six Cupping-Glasses have been fastened upon the pained place, and about the same; and after the anointing, the place being covered with very hot Linnen Cloaths, hath in one day cured a very stubborn Sciatica.

Lacuna in his Comments upon *Dioscorides*, doth commend the following Oyntment as wonderful:

Take *the Juyce of the Roots and Leaves of Dwarf-Elder, or Danewort, of each one ounce: Oyl of Chamomel six ounces: Boyl them to the consumption of the Juyces. Then add Wax as much as shall suffice, and a few drops of Vinegar to make the vertue pierce. Make of all an Oyntment.*

A Cataplasm of the Herb Iberis, wild Cresses, or Sciatica Cresses, is much commended by Authors, because this Herb is very effectual in the Cure of this Disease. It may be made after this manner:

Take *of wild Cresses four handfuls: boyl them in Wine, and beat them, adding thereto Meal of Lupines, Vetches, and of Beans, of each three drams: Pouder of dried Rue, Chamomel flowers, and Costus Root, of each one dram: Oyl of Turpentine half an ounce: Oyl of Earth-worms as much as shal suffice. Make all into a Cataplasm.*

Platerus witnesseth that it hath done much good, when green Sage hath been put on an hollow hot Tile, and often stirred lest it burn; and thus being half boyled and sprinkled with Vinegar, and a Cloth put about the Tile. and the same put under the Hips, the vapor thereof hath been received into the part affected.

Also a Loaf very hot out of the Oven, cut in the middle, sprinkled with Aqua vitæ, and laid on, wil be very helpful.

To draw the Morbifick Matter outwards, a Cupping-Glass is good, four times fastened upon the highest part of the pained place, which appertains to *Os sacrum*, without Scarrification.

To the same intent, eight or ten Leeches fastened to the part affected do much help, which are allowed and approved of by *Paulus* and *Aurelianus*. And *Zacutus Lusitanus* saies that in ten hours space he therewith took away the pain of the Sciatica, which no other Remedies could help.

Plaisters are likewise frequently used, and in this Case may do much. But in the use of them, this is alwaies to be observed, as it hath been said generally of the rest; that at the first mild ones be applied, which if they do little good, we may arise to more vehement. Which order we will likewise observe in our setting down the making of such Plaisters.

Take *Pitch used in Ships, two ounces: Brimstone poudered very fine three drams: Mastich two drams: Turpentine half an ounce. Mix them, and make of all a Plaister, adding as much Wax as shall be requisite.*

Take *Ship-Pitch two ounces: Gum-Ammoniack, Bdellium dissolved in Vinegar, of each one ounce: Live Brimstone, Turbith, Hermodactils, of each half an ounce: Castoreum one dram: Turpentine a little: Wax as much as shall suffice. Make of all a Plaister.*

Take *Gum Ammoniack, and Sagapenum dissolved in Vinegar, and then thickened again, of each two ounces*: Emplastrum Diachylon cum Gummis, *one ounce and an half. Melt all together. Then add Cinnabaris, Cinoper or Minium, and burned Braß, of each one ounce: Orpment and Verdegreece, of each two drams. Make all into a Maß or Plaister. If it raise Bladders, lay a Linnen Cloth between the Plaister, and the part affected.*

If the Disease do pertinaciously continue, we must proceed to a Vesicatory, which doth draw out the Morbifick Matter, being applied to the part affected. Wherefore a Blistering Plaister must be

be laid on, either alone, or that it may work more gently, with some of the foresaid, mingled in equal proportions, for so it may be endured upon the part a longer time. Or this following may be made fresh.

Take *Ship-Pitch, Wax, white Pitch, of each one ounce and an half: Colophonia, Frankincense, Mastich, of each two drams: Euphorbium, Ladanum, Quick Sulphur, Opopanax, Ammoniacum, Bdellium, Galbanum, Sagapenum, of each half an ounce: Storax, and Benjamin, of each two drams: Cantharides three drams: Galangal, Cloves, of each two drams: Liquid Storax, as much as shall suffice. Make all into a Plaister.*

In an old Disease, an Issue in the Leg on the pained side, doth derive the Matter away, and sometimes cures the Disease. *Zechius* will have it made in the outside of the Leg. And if there be suspition of a Catarrh from the Brain, another must be made in the hinder part of the Head. For that hath sometimes cured an old Sciatica when nothing else would do it. And then likewise other Remedies, correcting the Brains distemper, must not be neglected.

Zacutus Lusitanus tels of his making an Issue behind the Ears with wonderful success, when the Humor came from the Head. Of this he makes a peculiar story, Observat. 160. Book 2.

During the whol Course of the Cure, frequent Clysters are to be injected, that part of the Morbifick Matter may be derived unto the Guts. Also to discuss the next and immediate Cause of the pain, this following hath sometimes been useful.

Take *Rich Canary half a pint: Walnut Oyl, and Oyl of Rue, of each three ounces: Oyl of Turpentine half an ounce. Mix all, and make thereof a Clyster, to be cast in so often as the pain shal require.*

And this following Clyster doth wonderfully draw the Humors from the part affected, in regard of its Neighborhood to the Guts.

Take *Pulp of Coloquintida one dram: Lean Bran an handful: white Wine a pint and an half: Boyl all to a pint. Of the strained Liquor make a Clyster, and let the Patient keep it an hour.*

The Hip-Gout is sometimes bred of Choller, and hot Humors, which is known, when the pain is very sharp, and pricks, the pains are greater every other day, the party is lean, the Constitution of Body Chollerick, Age youthful, Country and Season hot, the pain is encreased by heating things, Chollerick Diseases have preceded, an hot Diet, and vehement Exercise; and then the Medicines must be fitted for Choller, and an hot distemper. Wherefore, Bleeding is good, Purgations of Choller, sometimes Lenitive, sometimes strongly purging with Diagridium, that the Morbifick Matter may be brought forth; cooling Juleps, emollient Clysters cooling, Milk, Bathing, and other Remedies propounded in an hot distemper of the Liver. Alwaies being careful to avoid things Opening, and to chuse rather such as do incrassate or thicken, such as we propounded for a thin and hot Rhewm.

The Pain being extream, some Narcoticks may be given, especially Syrup of Poppies, whereby the pain is allaied, and the flux of Humors stopped, by the Humors being thickned.

But *Laudanum Opiatum* is far more powerful, given to the quantity of three or four grains; which also dissolved in a Clyster of Broth or Milk, using a Purging Clyster before it, doth often take away the pain in a moment.

The external Medicaments must be gentler, as Oyl of Lillies, Violets, Chamomel, and sweet Almonds: Pultisses, of Lettice, Nightshade, Endive, Barley Meal, with the foresaid Oyls; and towards the declining of the Disease, Fomentations, Liniments, Milder Plaisters, and less Heating.

The Matter Causing the Sciatica, comes sometimes to maturity, so as to make an Imposthume. Which *Hippocrates* shews in the third Book of his Epidemicks in the History of *Eupolemus*, who had such an Imposthume, which killed him with a Consumption. If the Imposthume be opened, there remains a filthy il conditioned Ulcer, which likewise pines the Patient away. Yet *Zacutus Lusitanus* glories, that he had often cured the Sciatica with an Ulcer, in Obs. 126. Book 1. Which Observation ought to be read and diligently meditated upon.

Chap. 3. *Of Rheumatick Pains of the whol Body.*

AFter Gouty Diseases properly so called, it is worth our while to treat of the Rhewmatick Disease, because of the likeness between these Diseases, which verily is so great, that the generality of Physitians, which know not the Nature of this Rhewmatism, are wont to call it the universal Gout. For in both Diseases the Joynts are pained: but therein is the difference; In that in the Gout, only the Joynts are pained; But in this *Rheumatismus*, or Rheumatick Malady, not only the Joynts, but also the whol Body, viz. The middle spaces between the Joynts, namely, the

Muſcles and their Membranes, and eſpecially the Skins which cover the Bones, and the whol habit of the Body; yea verily, and ſomtimes the inward parts of the Body, as the Stomach, Womb, Lungs, are troubled with this Rheumatick Diſeaſe.

And although the Greeks cal a Catarrh by the name of *Rheuma*; yet this Rheumatiſm we ſpeak of, differs from a Catarrh, being indeed contained under the general term of Flux of Rheum, yet of a different Nature from that kind of Flux which is commonly called a Catarrh, which comes only from the Brain, and trouble no more than one or two parts; whereas this Diſeaſe we treat of, comes from the internal Bowels by the Veins and Arteries, and is ſhed into the whol Body.

This is no new Diſeaſe, yet is it not ſufficiently deſcribed by the Antients. We have a rude Draught thereof in *Hippocrates*, in his Book, *de locis in Homine*: and in *Galen*, Book 1. of the difference of Feavers; and the firſt *de compoſitione Med. ſecundum Genera*. But the moſt notable and cleer place of al, explaining this Diſeaſe, is in the firſt Book of the Differences of Feavers, in Chap. 7. the words are theſe: *Underſtand thou, That the Rheumatick Diſeaſe ſo called, is cauſed by ſome ſuch way as this*; viz. *The whol Body being weak, and the principal Parts thereof, though they have but little blood, yet finding themſelves burdened, they thruſt the ſame and expel it to the fleſhy parts of the Skin.* Whereby it appears that the true Nature of this Rheumatick Diſeaſe, according to *Galens* Doctrine, conſiſts herein; That the whol Body is ſo weak, that when any principal Part is burdened with blood, although it be in no very great quantity, it tranſmits the ſame to the fleſhy parts and habit of the Body.

But that is not ſimply to be underſtood which is ſaid by *Galen*, That the principal Parts being burdened with blood, do thruſt the ſame unto the fleſhy Parts of the Body. For ſo Inflamations and Swellings would ariſe in thoſe parts. Whereas Experience ſhews, that in this Diſeaſe called *Rheumatiſmus*, for the moſt part there appears no Swelling, no Inflamation, no change of color in the parts pained.

The next and immediate Cauſe therefore of this Diſeaſe, is a wheyiſh Humor, which by reaſon of its thinneſs doth not ſwel the parts, and becauſe of the ſubſtance thereof, not apt to turn into Matter or Quittor, it never makes any Impoſthume, but only a certain Inflamatory diſpoſition, ariſing from the fervor of the wheyiſh Humor.

Now the Primary Original of this Diſeaſe ought to be aſcribed to the Liver, which being affected with an hot diſtemper, and being weakened, breeds not blood convenient for to nouriſh, and affects the whol Body with the like weakneſs, whereby it becomes exceedingly diſpoſed to receive all ſuperfluities. And from the ſame Diſtemper and weakneſs of the Liver, great quantities of evil Humors do ariſe, which being long detained in the Veins and Arteries, they become vitiouſly corrupted, and are there diſſolved and turned into the Nature of Whey, and Blood-watry Liquors, and as an heavy burden, are by Nature caſt off into the ignoble Parts, ſhe being not ſtrong enough to drive them out of the whol Body. Now theſe wheyiſh and blood-watry Humors being very ſharp, do prick and cut (as it were) thoſe parts unto which they are carried, from whence pains and torments do ariſe. And although we conceive the Liver to be the primary Cauſe, and Original of this Diſeaſe, yet it is apparent that theſe Humors do ſomtimes flow immediately from the Brain, becauſe the pains do often begin in the Neck, and afterwards do deſcend unto the Shoulders and Arms. But the firſt Generation of theſe ſharp Humors was in the over-heated Liver, which being tranſlated from thence into the Brain, do from thence afterward fal down into the inferior parts.

And although theſe Humors are expelled by the Veins in manner of a Criſis, yet is not their motion ſo ſudden, but is performed by little and little; viz. When thoſe evil Humors and corrupted, do boyl or work in the Veins, and are afterward leiſurely by the Veins expelled and vomited as it were; for which cauſe this motion is wont fitly to be called, the Vomiting of the Veins.

That a ſerous or wheyiſh Humor is the principal Cauſe of theſe pains, many Reaſons do convince. Firſt, becauſe ordinarily they cauſe no ſwelling nor change of color in the part affected; howbeit, ſomtime when the Humor doth much abound, it raiſeth the part into a little, and very red Swelling, which nevertheleſs is eaſily diſcuſſed. Secondly, Becauſe theſe pains are exceeding movable, and do ſeize now this, now that part of the Body, and are ſuddenly gone from one part into another, the former part being quickly wel, and free from al pain; which ſudden mutations cannot come but from an Humor very apt to move, and exceeding thin. Thirdly, Becauſe this Diſeaſe is often terminated by Sweating. Fourthly, Becauſe there appear many tokens of abundant Seroſities in ſuch as are troubled with this Diſeaſe; Thin and abundant Urines beyond the Quantity of what they drink, and abundance of Wheyiſh Humors appearing in the Blood that is taken from them.

And although a wheyiſh Humor be the principal, and moſt frequent Cauſe of theſe Rheumatick Pains, yet probable it is, that wind doth ſomtimes concur in the production of theſe pains. Which we may conjecture by the quick Paſſage of the pain from one place to another, and becauſe there is no weight or heavineſs felt in the parts pained. This is the Opinion of *Avicenna*, who ſeems to deſcribe this Diſeaſe, and to aſſign windy Vapors for the Cauſe thereof: Fen. 1. Book, 3. Tract. 2. Chap. 7.

Chap.7. in these words. *In pain Caused by winds, the extension of the part is encreased & the heavineß diminished somtimes it is with pricking, & somtimes with Corrosion; and in a flatuous Pain there is no Heavinesse. And somtimes there is a Change of the Pain from one place to another.* These are the words of Avicenna: unto which he Joyns these following, which seem to come nearer the description of this Disease we treat of. *And the wind is somtimes in the Coates and fibres of the Members, as in the Collick from wind; or in the Coats of the Muscles and under the membranes, and upon the Bones, or in the Circumference of the Muscles, between the soft flesh and the Skin, or lurking in the Member it self,*

And if any shall object, that Diseases arising from wind, do not endure so long, because windy Vapours are soon discussed. We shall answer, that a wind conteined in the Parts Pained is easily discussed, whence comes often change of Pains from one Part to another; but there is a seminary in the Veins from whence winds may perpetually arise, & afterwards be carried to the Parts aforesaid. Now this Seminary of winds is a thick, viscid Humor and flegmatick, which the Blood taken from them doth often testifie to be redundant in such as are troubled with these Pains; it being frequently thick and clammy like Glew, in appearance like crude and putrid flegm.

The knowledg of this Disease may easily be learned out of what hath been said: yet shall we discource thereof a little more fully. First therefore, the Parts affected with these Pains viz. the Muscles and their Membrans, and the Membranes which infold the bones, do distinguish this Disease from all other. For although the Pains of the Lechers Pocks, do possess both the Joynts and the spaces between the Joynts, and specially the membranes covering the bones; yet they differ herein, because they do not so universally infest the whol Body, neither are so continual night and day, for they vex the Party only in the nights and very little in the day time; neither do they hinder the Patients from their business commonly; whereas this Rheumatick Pain, doth Nail them to their Beds, so as they can hardly stirr themselves; neither can those that look to them, once so much as move without great trouble and encrease of their Torments. And finally other signs of the Whores Pox have preceded or are present, as Gonorrhea, the Whores Boil, Putrefaction of the Privities and such like.

Other symptomes also there are accompanying this Disease, which help much to the knowledg thereof. For if you lay your hand upon the Part pained, you feel a kind of sharpness with Heat; commonly there is a Feaver Joyned therewith, but it is very small; and some times there is none at all. The Blood which is taken away is evidently corrupted, thick and clammy like glew, and after many times bleeding, it is ful of wheyish moisture, and so changed, that it hath not the appearance of Blood. When the Pain is quite gone or intermits there remains no weakness in the Part, as is usuall in the Gout. Purging Medicaments at the beginning do no good, nor things outwardly applied to the Part affected; they do rather augment the Disease and the Pain: but when the Disease begins to decline, both are profitable.

As for the Prognostick, this Disease is seldom or never deadly, but is very troublesome to the Patient by its length: for it continues two or three months, if it be without a Feaver; nay verily; somtimes if it be not rightly cured, it continues for a yeer or yeers. *Franciscus Portus* who in an elegant verse writ ten Poems of Physick speaking of this Disease relates that he was troubled with this Disease about two yeers space, which at length he overcame by the earnest Endeavour of six Physitians of *Paris*, the most famous in their times, viz. *Basinus*, *Belly-Quercus*, *Sanjacobæus*, *Seguinus* and *Hollerius*.

If this *Rheumatisus* do begin with a Feaver, it is wont to be the shorter, but it torments the Patient with more direful and cruel Pains: and then it finisheth within twenty or forty daies, or at least, it is much lessened.

This Rheumatick Pain coming upon the Neck of other Diseases as an Apoplexy or convulsion, doth make the Case less Dangerous, the morbifick matter being translated from the internal Parts to the habit of the Body.

Sweates happening in the Declination of the Disease are good.

Thick and abundant Urins in the Declination, do bring an end to the Disease.

For the Cure of this Disease the Morbifick matter must be revelled, mitigated and Evacuated, the distemper of the Bowells must be corrected, and the strength of all the Parts both the sending and receiving must be maintained.

All which may be done by these following Remedies

Take *Leaves of Mallows, Violets, Betes, Lettice, Borrage, of each one Handful. Anis-Seeds two drams: Boil all to twelve ounces, in the strained Liquor dissolve Honey of Violets and Sweet Butter of each two ounces: Make thereof a Clister. Give it at a convenient Hour, and repeat every day, or every other day during the whol Course of the Disease.*

When the Clister is come away open a Vein in either Arm and take away eight or nine ounces of Blood. It Matters not on which Arm the Vein be at first opened, because Blood-letting must be often

often repeated and the Veins of both Arms divers times opened. Blood must therefore be drawn every day from the beginning of the Disease til the Disease come to remit & the Pains to lessen neither matters it though the Patient be let blood ten or twelve times one after another in so many daies, because it is a peculiar property of this disease, that the Patients strength is not diminished by frequent bleeding, as in other Diseases it is wont to fall out. My manner therefore is in these Diseases when I appoint Bleeding so often, least the freinds and attendants or the Patient should be affrighted with so frequent Blood-letting, to add this restriction, that Blood-letting be continued every day, til either the Pains be diminished or the Patient much weakened. And seeing no weakness follows the continual use of this Evacuation the Patients do willingly undergo the same, and are easily perswaded to repeat the same. Now the condition of the Blood it is which makes this easie bearance, which in this Disease comes alwaies away very much corrupted. Experience shows how profitable this frequent Blood-letting is; for by the constant continuance thereof, the Disease which is wont (as was said in the Prognostick) to be long, is often mastered in a short time. And experience shews that large Bleeding at the Nose, if it happen to one that hath this Disease, it perfectly Cures that party, *Hippocrates* seemes to hint at this in Aphor 74. Sect. 4. *Those who are likely to have an Impostume about their Joynts, are freed from that danger, if they void much thick and white Urin, such as in painfull Feavers, some begin to make upon the fourth day: and if withall their Nose Bleeds, the Disease will very soon break.* For the falling down of Humors into the Joynts tending to an Impostume, hath some Analagy with this Rheumatick Disease we treat of. Also the same *Hippocrates* seems to propound a certain adumbration of this Disease in the second of his Predictories, and ascribes the cause thereof to the suppression of some usuall Hemorrhage or Bleeding, in these words. *They who have Pains and swellings about their Joynts, which are allaied not as the Gout uses to be, in such you shall find their Bowells large, and a white settling in their Urin &c.* afterward he adds; now this Disease besides those who in their Child-Hood and in their youth have been accustomed to Bleed at Nose, which custome hath left them.

Whiles these Bleedings are Practised, Clisters (as was before said) must be given every day or every other day; also Juleps must be given, which have power to correct the distemper of the Bowells, and to mitigate the Acrimony and agitation of the Humors. To this intent Red poppy water is very profitable in this Disease it is to be given alone morning and Evening six ounces at a time, with Syrup of Lemmons and Pomegranates in form of a Julep; howbeit it is no less effectual alone without the Syrups.

For ordinary Drink let the Patient use a Ptisan Drink of Barley, Grass and Liquoris; or of the Decoction of Sorrel Roots, or of the tincture of Roses: abstaining from Wine which is the great *Vehiculum* or Spreader of all Flowing Humors.

Purgation in the Beginning, Augment, and state of this Disease doth no good at all; nay verily it doth hurt, for it sets the Humors on running, and encreases the Pains; as it is wont to fall out in all Inflammatory dispositions. But in the Declination it is necessary and frequently to be Celebrated, and that with gentle Medicaments, that the evil Humors abounding in the whol body may be Evacuated by Degrees. To which purpose this following potion may be prescribed.

Take *Senna and Tamarinds of each half an ounce: Annis Seed and Cream of Tartar, of each one dram: Sorrell Leaves half a Handful. Boyl all to three ounces: In the strained Liquor dissolve Manna and Syrup of Roses of each one ounce: Make a potion, to be iterated divers times, as the Physitian shall think fit.*

If the form of a Bole be more desireable, it may thus be made;

Take *Cassia new drawn six drams: Catholicum doubled three drams: Rhubarb in Poudr and Cream of Tartar of each one dram: with Sugar make a Bolus.*

If you would purge more effectually add to the potion or the Bole a scruple of Jallap.

If these Purgations shall not suffice to eradicate this Disease (which is often very rebellious) we must proceed to stronger Purgatives, as *Electuarium Diephoenicon, Diaprunum Solutivum,* and such like provided there be no Feaver. I have allwaies cured this Disease (when the foresaid Medicaments could not do it) which *Mercurius Dulcis* six times sublimed, being given divers times to the Quantity of a scruple with ten graines of Scammony or Rosin of Jallap. An example of which kind of Cure is to be seen in my observations, viz. in Obs. 41. Cent. 3. One only Clister of Vomiting Wine Cured this Disease in a certain Gentle Woman, as you have it in Obs. 22. of the same Century.

Touching Sweat-Drivers, the same is to be said which was said of purges; viz. that they in the Beginning, Augment and state, do no good; nay do very much harm; which the common sort of Practitioners find by experience, who being deluded with the likeness of a true Catarrh, and wearied with the stubbornness of the Disease, do flie to Sudorosicks, by which the Disease is doubled and the Pains encreased. But in the Declination, after due Purgations, no Feavers being present, they may do much good, and they may be made of a Decoction of China, or Salsa-Parilla; or sweat

may

may be procured in a Laconick Bath with ſpirit of Wine or ſome appropriate Decoction.

After ſufficient Evacuations; yea rather while they are celebrated, we muſt be careful to ſtrengthen the whol body and the principal Parts thereof; which Indication *Galen* in 1. of the Difference of Feavers Chap. 6. where he expounds the Nature of this Diſeaſe, ſaies, is to be preferred before all others, in theſe words. *Juſtly therefore the aim of a Phyſitian in cureing theſe kind of Patients, is not Evacuation, but Roboration of the whol Body.* Which is not ſo to be underſtood, as if no Evacuation were fit in theſe Caſes (for the ſame *Galen* begins the Cure of this Diſeaſe by Blood-letting) but that we muſt make more and more often uſe of ſtrengtheners, and leſs and ſeldomer uſe of Evacuations. Yet ſure enough it is, that the Parts cannot be ſtrengthened, unleſs the ſuperfluity of Excrements, by which they are burthened be purged out.

Now theſe ſtrengtheners we ſpeak of, muſt be of a cooling Virtue; ſeeing (as was ſaid) the over hot diſtemper of the Liver gives beginning to this Diſeaſe. There is great plenty of ſuch Medicaments in Authours: Of theſe I ſhall propound four, which I account moſt effectuall and leaſt ingrateful to the Patient.

The firſt is the Tincture of Coralls, two ounces of which the ſick may take in a morning, two houres before Meat, every day on which no other Medicaments are adminiſtred.

But becauſe the Tincture of Coralls cannot long be kept, it is reduced into a Syrup for longer keeping, with Sugar, of which two ſpoonfulls may be taken in the morning: but the Efficacy thereof is much leſs, than of the ſimple Tincture.

The ſecond, is the Conſerve of the fruit which grows upon the Roſe-briar or the Eglantine Briar, which is moſt pleaſing to the taſte, cooles the Liver, and by a gentle aſtriction corroborates the ſame. The Patient may take thereof the Quantity of a Cheſtnut, morning and evening.

The third is the Electuary of *Triaſantalon* with a four-fold proportion of Rhubarb, made into Lozenges; two drams whereof the Patient may take every day and drink a little ordinary drink thereupon.

The fourth is A Tincture of Roſes, a Cup whereof the Patient muſt drink, once, twice, thrice a day far form Meals. It is thus made.

Take *Red Roſe Leaves dried one ounce: Water, Blood Warm three Pints: ſpirit of Sulphur or Vitriol one dram and an half: Infuſe them ſix hours: To the ſtrained Liquor ad white Sugar half a pound: keep it in a Glaß for Uſe*

The foreſaid Remedies or ſome of them muſt be uſed in Courſe one after another, leaſt Nature be too much accuſtomed to one, and ſo the leſs altered thereby,

When the Diſeaſe is Cured, the Patient muſt be cautious for a time leaſt new matter being collected a Relapſe ſhould happen. The Prevention therefore hereof, wil chiefely conſiſt in a ſtate or periodical Purgation, to be iterated once or twice every month; which may fitly be done by this Magiſterial Syrup following, which will do more good by altering and ſtrengthening the Liver than by purging.

Take *Juyces newly preſt and cleared by ſettling, out of Endive, Cichory, Egrimony, Fumitory, Hopps, and Bugloß three pints: Juyce of Apples that are Odoriferous, as Permaines and Pipins, two pints, Senna ſix drams: Epithimum two ounces: Rhubarb elect, and Agarick newly trochiſcated of each one ounce: Mace and Cloves of each half a dram: Infuſe and Boyl all according to Art, till there remain fifteen ounces of the Liquor, wherein diſſolve of white Sugar the ſame Quantity and make a Syrup perfectly boyled. Of wich let the Patient take two ounces once or twice in a month, with Chick or Veal Broth, qualified with the Leaves of Borrage and Cetrach and Agrimony.*

Allo ſpring and fal 'twil be good to open a Vein.

Furthermore, to temper the fervency of the Liver, a Bath of Luke-warm Water will be good, which muſt be frequently repeated, the whol Summer through: or for more Conveniency a Tub to ſit in may ſuffice.

To the ſame intent Conſerve of Bramble-Roſe or Eglantine Roſe-Berries will be good, or an Electuary of the ſame virtue, and Lozenges made of the Species *Diatrion Santalon*, being frequently uſed.

Hereunto muſt be added a good Diet of Meats affording good Juyce and eaſily digeſted, as Partridges, Capons, Chickens and Pullets; eſpecially broths and the Juyces of fleſh preſſed forth, and ſuch like, all which muſt be taken in no great Quantity, that they may be more eaſily digeſted.

The End of the Sixteenth Book.

THE

THE SEVENTEENTH BOOK OF THE PRACTICE OF PHYSICK.

Of FEAVERS.

The PREFACE.

WE find by many *Authors* great *Volumns written touching the Theory and Cure of Feavers*; *in which, innumerable Controversies, and difficult Disputations are handled. Which as they are in the Schools very useful, yea, and necessary*; *so are they tedious to most Physitians, who having left the Universities, do give themselves unto the Practice of Physick: For they desire a short and cleer Explication of the Theory of Diseases, which may suffice to declare their Nature, Causes, and Signs, both Diagnostick and Prognostick, with their right Method of Curing, which is the only thing they regard. It being my endeavor in this whol Work to satisfie their Desires, I have banished all Controversies, briefly expounding the decision of Questions only which seem most necessary for a Practitioner. This we have likewise done in our Doctrine of Feavers*; *and letting pass all tedious Controversies, which are continually handled in the Schools*, usque ad Nauseam; *we have declared only such things as principally regard Practice. And this Book for better Methods sake, I have distributed into three* Sections, *following that General Division of Feavers, into Simple, Putrid, and Pestilential. So that the first Section of this Book shall treat of Simple Feavers: The second of Putrid: And the third of Pestilential.*

SECT. I.

Of Simple Feavers.

The PREFACE.

THat *which we call a Simple Feaver, is subdivided into three sorts*; *of which, one is called* Ephemera; *another* Synochus simplex, *or* Imputris; *and another* Hectica. *And therefore we shall divide this Section into three Chapters: The first of* Febris Ephemera: *The second of* Synochus simplex: *The third of* Febris Hectica. *Wherein we shall declare* CHAP. *their Nature and Cure.*

Chap. 1. *Of the Feaver* Ephemera.

THis Feaver is commonly bred of external Cauſes, and of vehement Motions of Body and Mind, as Anger, Cares, Labor Pain, Watching, and Faſting, by which the Spirits are inflamed; alſo by Sleep and Sorrow, by which the hot Humors and Vapors are kept within the Body. Alſo by being heated with the Sun, Fire, or Stove, by which means, hot air being drawn in with the Breath, and received by the Pores of the Body, it doth inflame the Spirits. Alſo by Surfetting, Drunkenneſs, and eſpecially by over large taking in of Meats and Drinks, that are of an hot Nature, as Peppered Meats, and ſtroog Wines, by which more Vapors are raiſed than can exhale. Alſo by Retention of hot Excrements, and that not only of the Dung and Urine, but eſpecially of thoſe Sooty Vapors which are wont to paſs through the Pores of the Skin, if thoſe Pores be ſhut up with cold, an Alluminous Bath, and ſuch like Cauſes.

Alſo this Ephemera Feaver is bred of internal Cauſes, as from a Bubo, and other Swellings of the Thighs or Arms, eſpecially whiles they break; from an hot fiery Swelling of the Extremities of the Body, when hot Matter ſhut up together in one certain place, doth offend the Heart, not by its putrefaction, but heat alone. Alſo by ſome ſmal Obſtruction of the Veſſels, by which means the ſooty exhalations being retained do cauſe a Feaver; as is wont to happen in Diſtillations, when they ariſe in hot Natures, and a thick habit of Body.

This Feaver is known, both when ſome of the Cauſes ſpecified hath gone before; and alſo by a ſwift, frequent, and great Pulſe; breathing frequent and great, Headach and Heat; there is neither cold nor ſhaking, no ſence of wearineſs, nor want of Appetite. Yet may there be ſomtimes a ſhivering or ſhaking fit, namely, when the Feaver is occationed by the heat of the Sun, or by cold. Feeling the Patients Hand we find a mild and gentle heat; the Urine is concoct, like that of one in health, unleſs by ſome Obſtruction or Crudity it be changed. It is commonly terminated in the ſpace of twenty four hours, with an eaſie gentle Sweat; yet it reacheth ſomtimes unto the third day, which if it paſs it degenerates into a ſimple Synochus, a Putrid, or an Hectick Feaver.

For the Cure of this Feaver, the Ancients did chiefly uſe a bath of luke-warm Water, which they did alſo frequently uſe in their Health. But ſeeing it is in theſe times out of uſe, neither is it in practice in the Cure of theſe Feavers. Neither is it counted late, in regard of a Plethorick or Cacochymical Conſtitution of Body, Putrefaction, or flux of Rheum, which may be in ſuch bodies, or may be feared wil happen.

But this Feaver is better cured by a Cooling and Moiſtening Diet; as Barley Cream, Cooling Broths, Smal Drink and Sugar, common Ptiſan Drink, or Fountain Water with Syrup of Lemmons, Maiden-hair mixed therewith.

But the Cure admits ſome variation, according to the Nature of the Cauſe. So if it ſpring from the Heat of the Sun or Air, a cooling Diet is good, and the Patient muſt be conveighed into a cool lodging; and Vineger of Roſes muſt be applied to his Forehead, to the Temples and former part of the Head it ſelf, if there be pain, as commonly there is when the Feaver comes from the heat of the Sun.

If it come from being in the Cold, eſpecially if the Patient being hot with Exerciſe went preſently into the Cold, Sweat muſt be provoked, eſpecially towards the end of the Fit.

If it come from the Skins thickneſs and cloſing up of the pores, the ſame Cure muſt be uſed; and to both theſe Cauſes, ſmal Wine very well allaied with Water may be convenient, becauſe it opens the pores, and helps to ſweat.

If the Diſeaſe was cauſed by Labor, the Patient muſt reſt and be nouriſhed more liberally with Meat of eaſie Digeſtion. If from wearineſs, the Patient muſt be artificially rubbed. Tranquillity of mind, and cheerfulneſs, muſt be oppoſed to Anger; and Choller muſt be tempered with Meat and Drink of a cooling Nature. To Sadneſs, Recreation of the Mind is a Remedy, and the uſe of thin ſmal Wine. If the Feaver was cauſed by watching, let the Patient ſleep by application of things convenient: If by faſting, let the Patient eat cooling Meats of good Juyce: If by over eating or drinking, let the Patient abſtain from Meat and Drink, not omitting ſuch things as ſtrengthen the Stomach, both inwardly given, and outwardly applied: alſo with an Emollient and Laxative Clyſter, part of the Crudities is to be taken away. If Putrefaction be feared, Vomit may be procured, or a Purge given. If the Feaver ariſe of Obſtructions, we muſt conſider whether the Patient be Plethorick or Cacochymical, viz. Whether the whol Maſs of blood be over great, or only ſome bad Humors abound in the blood. If the Patient be too ful of blood, blood-letting muſt be advited; if evil Humors only abound, a Purge muſt be preſcribed. And if the Obſtruction wil not eaſily be removed, this Feaver changeth into ſome of the other ſorts of Feavers, whoſe Cures ſhal be deſcribed in their proper places.

Chap. 2. *Of the Feaver* Synochus Simplex.

THe Causes of the Feaver *Ephemera* aforesaid, if they light upon a Plethorick Body, and thick skinned, they cause the Feaver *Synochus Simplex*. Yet may this Feaver arise only from abundance of Blood stuffing the Veins, and yielding many Vapors more than can breath through the pores of the Skin.

This Feaver is known by a thick and swelling habit of Body, the color of the Body and Face is ruddy; the Head is pained with a stretching or distending kind of pain; the Patient is sleepy, hath a beating in the Temples, is unquiet, hath a straitness in the Chest with difficulty of breathing; the Pulse is great, even, frequent, full; the Veins strut with blood, whence a stretching kind of weariness doth proceed; the Urine is thick, little differing in color from a Natural Urine, only somwhat redder; the heat is to ones hand mild, tempered with a steamy Vapor; the Feaver holds an even progress, for either it holds one and the same tenor, or it lessens by degrees, or it encreaseth equally, never remitting or ceasing. Whence there are reckoned three Differences of this Feaver: For that which continually encreaseth, is called *Epacmastica*; That which continually decreaseth, is called *Paracmastica*; That which keeps one and the same tenor, is called *Homotonos*, or *Acmastica*. It lasts til the fourth day, and sometimes til the seventh; and then it is terminated by bleeding, or sweating; and if it be further prolonged, it degenerates into *Synochus Putrida*.

The Cure of this Feaver is performed, by blood-letting, by cooling, and by opening the pores of the Skin. *Galen* in the ninth Book of his Method, Chap. 4. cures this Feaver by two Remedies only; viz. Letting of Blood til the Patient faint away; and by giving a great quantity of Water to the Patient to drink.

Blood-letting is absolutely necessary in this Disease, because it is bred by fulness of blood; and a Vein must presently be opened at what hour soever the Physitian is called, unless the Patients Stomach be ful of Meat, the digestion whereof must be expected for certain hours. And although Blood must be plentifully drawn, and *Galen* reports in the fore-cited place, That he cured the most of such as had this Feaver, suddenly, by letting them bleed til they fainted away; which bleeding was attended by a looseness, vomiting of Choller, and plentiful Sweat. Yet in these daies of ours, that same large blood-letting is out of date; which is not without danger, seeing *Galen* himself relates in his Book of Curing by Phlebotomy, Chap. 12. That it befel three Physitians, while they were practising this large Blood-letting that instead of fainting away, their Patients died out-right. It is better therefore at several times to take away so much blood, as the Nature of the Disease doth necessarily require.

Before Blood-letting, if the Patient be Costive, or the Guts abound with Crudities, an Emollient and Laxative Clyster must be given.

As for the point of cold Water, *Galen* orders it to be given in so great quantity, that the Patient grow pale, tremble, and be cold all over; and so he saies, it extinguisheth the fiery heat, it strengthens the solid parts, and drives out unprofitable Humors by stool, by urine, and by sweat. But he saies there must be many Cautions in the use thereof; viz. That it be given in the Vigor of the Feaver, the signs of Concoction appearing; that the Patient have been used to drink cold Water in time of health, have strong bowels, and full of juyce, a fleshy and wel-fet Body; have a constant and vigorous strength; be not full of thick and clammy Humors, have no tumor in any bowel, nor stomach, throat, or sinews weak. Otherwise, if these conditions be wanting, it is to be feared lest the Patient fall into shortness of breath, Dropsie, Trembling, Convulsion, Lethargy, or some other grievous Disease. This kind of Medicine is likewise grown out of date in our times, seeing it is hard to observe all those conditions, and so many dangers attend the undue use thereof. For it is better to use other more safe Medicines which cool the whol Body, and the Blood; as Juleps, and opening Emulsions, Epithems, Liniments, and a Diet altogether cooling. Juleps are made of the Decoction of Barley, or Sorrel, or Cichory; or with Water of Cichory, Endive, Sorrel, Lettice, adding Syrup of Juyce of Cichory, Lemmons, Pomegranates, Vinegar, &c. Whereunto also for the greater cooling and opening, may be added some drops of Spirit of Vitriol, or Sulphur. If the distilled Waters seem too crude or raw, let them boyl with a little Species Triasantalon, or Diamargaritum frigidum.

Emulsions may be made after this manner:

Take *sweet Almonds blanched and steeped in Rose Water, one ounce: the four greater cool Seeds, and Seeds of white Poppy, of each two drams. Beat them in a Marble Mortar, powring on by little and little, a pint and an half of Barley Water. In the strained Liquor dissolve Sugar of Roses three ounces. Make an Emulsion of Almond Milk for three Doses. Which will be convenient, and is to be preferred before Juleps, if there be want of Rest.*

Epithems

Epithems to be laid upon the Region of the Heart and Liver may be thus made:

Take *Water of Roſes, Bugloß, and Lettice, of each three ounces: Vinegar of Roſes one ounce: Pouder of the Electuary Diamargaritum frigidum one dram and an half: Camphire ſix grains. Make an Epithem, lay it upon the Region of the Heart.*

Take *Water of Endive, Cichory, Sorrel, of each four ounces: Vinegar of Roſes an ounce and an half: the three Sanders two drams and an half. Make an Epithem for the Region of the Liver.*

A cooling Oyntment may be anointed upon the Liver and Loyns, of Vinegar of Roſes, *Unguentum Roſatum*, *Unguentum Refrigerans Galeni*, or *Ceratum Santalinum*, waſhed in Vinegar, tempered with Water.

If the Diſeaſe ſeem to lengthen, after bleeding we muſt purge, leſt the wheyiſh and Chollerick Excrements putrefie, and thereby a putrid Feaver ariſe. But we muſt uſe ſuch Medicines as purge without heating and agitation of Humors, as Caſſia, Manna, Syrup of Roſes, Tamarinds, Catholicon, and ſuch like.

Ad hereunto a convenient Diet, viz. Cooling, moiſtening, and thin, of Broths made with cooling Herbs, Prunes, and ſharp Apples boyled, and Panadaes.

Let the Patients Drink be, a Decoction of Barley, Water boyled, and Water with Bread boyled in it, or mixed with Syrups of Maiden-hair, or of Pomegranates.

Chap. 3. *Of an Hectick Feaver.*

AN Hectick Feaver occupies the ſolid Parts of the Body, which conſtitute the Habit thereof, and are commonly called Spermatical, or fleſhy; in regard of which parts it is more fixed and rooted than other Feavers which are in the Spirits, or Humors. For which cauſe it is alſo termed Habitual, becauſe it is become Habitual, and can hardly be removed from its ſubject.

There are many Diviſions of this Feaver. For firſt of all, there is a Primary Hectick, which begins of it ſelf; and another Secondary, which follows other Feavers. Secondly, an Hectick Feaver is ſimple and ſolitary, or joyned with a putrid Feaver. Thirdly, ſome Hecticks begin at the Heart; others from other Parts, as the Lungs, Liver, Spleen, Kidneys, Womb, and other Parts inflamed, ulcerated, corrupted, or poſſeſſed with ſome other grievous Diſeaſe. And this Feaver though it have its habitual ſeat in the Heart, and the whol Body; yet is it commonly termed Symptomatical, becauſe of its firſt Original which it hath from other parts.

Galen makes three Degrees of an Hectick Feaver. The firſt is the very beginning of an Hectick; in which the Body is hardly extenuated; yet the moiſt Humidity of the Body is inflamed, conſumes, and dries. The ſecond comprehends the Augment, and therein is an evident extenuation of the Body, the fleſhy and fat ſubſtance of the Body periſhing. The third contains the ſtate of the Diſeaſe, and its laſt age; for it never comes to a declination, becauſe therein, viz. in that degree it is incurable: for then the fibrous and membranous ſubſtance of the Body is conſumed, and the whol Body is ſo extenuated, that the Face of the Patient is like that deſcribed by *Hippocrates*, nothing but skin and bone. This laſt Degree is called *Maraſmus*, or rather *Hectica Maraſmodes*; becauſe in a true *Maraſmus*, cold is joyned with dryneſs.

The Cauſes of an Hectick Feaver are divided into an Internal, and External. To the External are referred, what ever Cauſes may occaſion any of the other Feavers, if the Action of Heating be continual and vehement, or the Patients Body be apt to entertain this kind of Feaver. Such are, the heat of the Sun, or of the Fire, vehement Exerciſe, Meats and Drinks that are heating, immoderate Evacuations, as in a Looſneſs and bloody-flux, vehement paſſions of Mind; and finally, faſting in a Chollerick Body that is hot and dry of Conſtitution; ſeeing *Galen* affirms, that thoſe Phyſitians that were wont to enjoyn their Patients to faſt three daies together, did bring Chollerick Conſtitutions by that means into burning and hectick Feavers.

The Internal Cauſes are, burning and peſtilential Feavers, which do ſpeedily conſume the moiſture of the Heart; alſo a long ſlack Feaver. Alſo ſome peculiar Diſeaſe of any of the bowels, as an Inflamation or Ulcer; or putrefaction of ſome Humor contained therein; or finally, the corruption of the Member it ſelf, which are wont to cauſe a lingring Feaver, and an hectick.

Of theſe Infirmities peculiarly poſſeſſing ſome certain Members of the Body, and cauſing an Hectick, we have Examples manifeſt enough. For, as for what concerns Inflamations, *Galen* ſaith he ſaw a woman that by reaſon of an Inflamation in her Midrif, fel into an Hectick Feaver. And we dayly obſerve in the Conſumption of the Lungs, or *Phthiſis*, a complicated Hectick Feaver. The putrefaction of Humors contained in ſome bowel, fals out in great obſtructions, or cold ſwellings. The corruption of ſome Member is often ſeen in the Lungs; ſomtimes in the Liver, in ſuch men as are given to Wine, and who uſe much hot Spices; for a certain filthy corrupt blood is bred in

their Liver, by which the substance thereof is corupted. *Fernelius* saies, he somtimes met with this kind of Feaver, and that it is a sign thereof, when the Patients extreamly covet Wine; but abominate all kind of Flesh.

A Simple Hectick Feaver is known, because it is continual, without any fits, allwaies alike, neither encreasing nor decreasing, save that it is somwhat augmented, an hour two or three after Meat. The heat under the short Ribs, is at first laying on the hand mild, afterward sharp, biting and dry. The Pulse, is little, frequent and quick; the sick perceive not any Feaver, they are lazy, and loath to stir, and when they stir it is with Pain, because their strength is in a languishing condition. Their arteries are hotter than the Parts circumjacent, which may be preceived by the touch after the Patient hath washed in cold Water. The Urin is like that of one in health both in point of color and sediment. In the progress of the Disease Oyly substance Swims on the top, and the sediment is like to Meal, which is a sign that the substance of the Body doth melt,

More particularly, we may know not only the several degrees of an hectick, but foresee it before it comes after this manner.

An hectick Feaver at hand, is known, if the causes have preceded; viz. if there have been a burning Feaver, in a body naturally hot, dry, and of a thin contexture, in an hot season of weather, it is to be Feared, the Patient wil fal into an hectick, and such remedies as may prevent the same are to be used.

The first degree of an Hectick Feaver if it be Joyned with a putrid Feaver, is very hardly known: if it be alone, not very easily. In the first day, there are al the signes of *Febris Ephemera*. In the second, the dryness is augmented, not the heat. On the third day it repeats not, it is not evidently augmented nor diminished. And at length one hour or two after Meat, the Heat seems somwhat encreased.

In the second degree, the Patient perceives no Feaverishness, only some alterations after Meals. There is a manifest dryness, a smaller and swifter Pulse, with a certain hardness.

The signs of the third degree are most manifest; the Eyes are hollow, dry and have dry excrements in them, the bones evidently stick out, the lively colour of the Face is extinguished: the whol Skin is dry, the Midrif vehemently contracted, so that the Patients seem to have no Guts. Their Pulse is perceived under the stomach, in all extenuated persons.

And because a putrid Feaver is many times coupled with an Hectick, they are both exactly to be distinguished, because it is of great moment in regard of the Cure, which in this case is very much differing. Now this coupling may be known by Comparing the signs of an Hectick propounded, with the signs of a putrid Feaver, which shall be hereafter described in their proper place.

The first degree of an Hectick Feaver is easily Cured, the third is incurable; the second is of a middle Nature, and look how much the nearer it approaches to the first or third by so much is it easier or harder to be Cured. An Hectick Feaver happens most commonly from the eighteenth yeer to the thirty five, for in that Age the Heat is most intense, and sooneſt consumes the Body. But they who before this Age or a little after are taken with an Hectick Feaver, do more easily escape and are somtimes Cured perfectly; or by a palliative Cure their life is protracted a long time, especially if they be Women.

For the Cure of this Disease, we must first consider whether it depend upon any Disease of some particular Part or not: for then the Cure must be directed to that Disease: as also if it be single or combined or complicated with a putrid Feaver. And in this case the putrid Feaver is first to be Cured by Bleeding, Purging, and by Opening Medicaments and such as hinder putrefaction: the Hectick Feaver in the mean while not being neglected. But if the Hectick Feaver be single and alone the Cure must be effected only with cooling, moistening and restaurative things; the matter of must be taken from Diet and Medicine.

Diet, here, as in all Chronick Diseases, can do much; nay in this Disease it can do more than all Medicines. Therefore the Patients Diet must be by the Physitian exactly ordered, viz. That it may be directed so as to cool and moisten the whol Body. It therefore the Air where the Patient is, be moderately cold or temperate, let him use the same; if not, let it be corrected, so as that it may incline to cold and moist. For this Reason *Galen* in the 10. of his Method Chap. 8. in the Summer when the Air is hot, orders the sick to abide in a Room under the Ground, that is very cold and blown through with the Wind, open towards the North. By which Remedy alone, we have seen a man extreamely consumed, restored within a month. Again the heat of the Air in the Patients Chamber must be altered, by cold Water being powred out of one vessel into another, by the very noise whereof Sleep is caused; also by moistening the Pavement often with cold Water Sprinckled thereupon, or by cooling Hearbs, ottentimes fresh strowed therein: and by forbidding any number of people to come in, which among other things, doth likewise heat the Chamber. And *Galen* gives order that when the Air is coldest it should be received by the sick namly by drawing it in by the mouth, because it exceedingly cools the heat of the heart; but it is not good for the Body of the sick, least it stop the pores of the Skin and hinder the breathing forth of excrements.

excrements. But *Galen* affirmes that the breathing in of the cool Air doth the Patients more good, than they can receive hurt, by the ſtopping of their pores, if that ſhould happen: but that may be hindered by warm cloathing of the Body. Yet it is to be obſerved, that if the Hectick Feaver ariſe from an Ulcer in the Lungs; that the cold Air is not good in that reſpect, but rather temperate, a little inclining to heat, and dry. For which Cauſe *Galen* ſent thoſe that had conſumptions of their Lungs to the Mount Tabias where the Air was more dry than ordinary.

The Meates of the Patient muſt be cooling and moiſtening and quickly nouriſhing, as Chicken-Broaths and Broaths of Hens, Capons, Veal, Kid, Wether Mutton; Yolks of Eggs, with French Barley, Lettice, Purſelane, Endive, Borrage, Sorrel; The fleſh of Calves, Kidds, Piggs, Pheaſants, Partriches, Young Hares and ſuch like. Panadaes, Barly Cream, Water-Gruel, Rice-Pottage, with Sugar and a few Almonds or rather with the greater cooling Seeds. Boyled Meats are fitter than Roaſted which are ſooner Inflamed and turned to Choller; the boyled do more moiſten. But if the Patient be more delighted with Roaſt-Meats; they muſt be very moderately Roaſted, and tempered afterwards with Juyce of Lemmons, Citrons, Orenges, or of unripe Grapes, without Salt.

Fiſhes may be eaten, becauſe they cool and moiſten but ſuch as are taken out of ſtony places are to be preferred, and ſuch as have a tender friable fleſh, haunting the Sea or Pure Waters.

Among fruits, Apples are commended becauſe they breed cold Blood. alſo Pears are convenient, Damask Prunes, and French Prunes boiled in Sugar; alſo Raiſons cleanſed, which being prepared after this following manner, do nouriſh the body without heating.

Take *Raiſons of the Sun cleanſed one pound: Let them be tempered in endive, bugloſs and Roſe-Water and very diligently waſhed, that the Laxative power may be taken away. Afterward let them be lightly boyled in the ſame Waters, adding a little Sugar, wherewith let them be preſerved for uſe: let the Patients take of them in the mornings and allwaies after Meat.*

And becauſe Perſons that are Hectical, have the Feaveriſh heat fixed in the ſolid Parts of their bodies, by which the Nutriment is eaſily and ſuddainly conſumed and diſſipated: therefore Practitioners are wont to preſcribe unto them, Meats ſolid and of a clammy ſubſtance, as the Feet of Living Creatures, The fleſh of Snails, Crabbs, Tortoiſes, and of Froggs. For ſeeing theſe ſorts, of fleſh are moiſt and clammy they eaſily adhere unto ſuch Parts of the body as want nouriſhments neither are they eaſily conſumed by the Feaveriſh heat: and ſo they hinder the drying up of the ſolid Parts of the body. Yet ſome do reject theſe Meats, becauſe hard of digeſtion and troubleſom to the ſtomach. But this difference is thus reconciled. In the beginning of an Hectick, while the digeſtive faculty is yet ſtrong, theſe thick and clammy nutriments are convenient: but in a confirmed Hectick they are not to be given becauſe hard to digeſt. Add hereunto, that they may be ſo prepared and qualified, as that they may eaſily be digeſted; as by being boyled to a gelly, or giving only what is ſtrained out of them being beaten into a maſh. Among other things the land Tortoiſes are mightily praiſed for an Hectick, not only for a ſingle Hectick, but when Joyned with a Conſumption; and they are prepared divers waies. For either they are boyled in Water till they are diſſolved then caſting away the ſhells, the fleſh is ſeparated from the bones and boyled again with Cichory, Sorrel, Borrage, French barley, and prunes in a ſingle Hectick: but in an Hectick of the Lungs it is Boiled with Bramble Leaves, Purſlain, and Plantan. Let the Patient drink the broath and eat the Fleſh twenty daies together. Or the Juyce is preſſed out of the Fleſh being beaten. Or little Loaves are made of the Fleſh of the Tortoiſes boiled in Barley Water, with ſweet Almonds, pine kernells, the cooling Seeds and Sugar. Which are lightly baked in an Oven and are given the Patient at Dinner and Supper. They may be thus made.

Take *of the Fleſh of Land-Tortoiſe Boyled in Barly-Water four ounces: ſweet Almonds ſteeped in Roſe-water ſix ounces: Pine-Kernells ſo ſteeped two ounces, of the four greater cool Seeds, of each one ounce: Annis Seed not Poudered, but lightly baked in an Oven one dram and an half: Cinnamon two drams: Sugar diſſolved in Roſe-Water, to the Quantity of all the reſt. Make thereof little Morſells.*

Inſtead of Tortoiſes the Fleſh of a Capon is uſed and of a Partridg, and March-Pane is made thereof, good to reſtore Hectick Perſons, after this Manner.

Take *Pulpe of a Capon and Boyled Partridg of each three ounces, ſweet Almonds ſteeped in Roſe-Water four ounces: Pine-Kernells one ounce and an half: Seeds of white Poppy two drams: Gum Arabick and Traganth of each one dram and an half: Pearled Sugar Cakes two ounces: with a little Roſe-Water make a March-pane, and gild it with Gold.*

To ſuch as have weak ſtomachs, Gellies, broaths, and Reſtorative ſtilled Waters are given. A Gelly may be made after this Manner.

Take *a choiſe Capon, a Knuckle of Veal, or a Wethers Thigh, two Calves Feet, or ſix Wethers Feet. Boyl all in fountan Water, till it be ſufficiently waſted. Strain and ſqueeſe out the Juyce and Broath and take off the Fat. In the ſtrained Liquor diſſolve a pound of white Sugar, ſix whites of Eggs, a little ſaffron or Cinnamon. Stir them together let them Boyl lightly, and*

ſtrain

strain them through an Hippocras bag twice or thrice. At length put it into Porrengers, or other Vessels in which it will become a Gelly. If the tast of Saffron or Cinnamon be displeasing, or you desire to have your Gelly more cooling, add instead thereof the Juyce of a Lemmon, or of one Citron.

Restorative Broths may be made divers waies; this is far the best of all, which follows:

Take *a well fleshed Capon; pull, draw, and cut him in pieces, and take away the fat and skin: add, if you please, some Veal, or Weather Mutton cut into bits, and freed from the Fat. Put them into a stone Vessel well glazed; in which, about the middle, there must be a grate of Wood, or other materials, on which the pieces aforesaid must be so laied that they may not come at the bottom. Then cover the Pipkin with its cover, and close it up well with paste, and let it stand in boyling* Balneo Mariæ *five hours. There will drop into the bottom a cleer transparent Liquor; of which three or four spoonfuls, may be given in Broth, or by it self, three or four times in a day.*

Such Distillations of Flesh by Descent, are very convenient for Hectical Persons; but those that are made by Ascent, although they refresh the Spirits, yet do they very little nourish; neither do they restore the solid substance of the Body.

Let the Patients Drink be, Barley Water, either by it self, or with Syrup of Vinegar, or Pomegranates mingled therewith, or Water in which a piece of Bread hath been boyled, sweetened with a little Sugar. But if the Patients Stomach be very weak, weak Wine wel allaied with Water may be allowed, which helps the concoction and distribution of Nourishment. *Galen*, Meth. 10. Chap. 5, 6. gives cold Water, with which he boasts he had saved many from the Marasmus. Howbeit, great Caution is to be used in the giving thereof; for when the Body is very much pined away, it is to be feared lest the smal heat of the Patient should be wholly extinguished. And therefore it is only good when an Hectick is feared, or in the beginning thereof, and to such as are accustomed thereunto, and while the Body is yet sufficiently ful of blood.

Motion of the Body is not good, but the Patient must be enjoyned to rest; howbeit before Meat, if strength wil bear it, some light exercise wil be good; or instead thereof, a few light frictions or rubbings may serve turn, especially presently after sleep, beginning at the inferior parts of the Body; for they provoke the Humors outward. And the Patient must be rubbed no longer than til a light redness begin to appear upon the Skin; for to rub longer would dry the Body. Carnal Embracements must be above al things avoided, which do very much consume the substance of the Body.

Let the Patient sleep, neither very long, nor very little. For long sleep encreaseth the heat of the Bowels, by the retiring of the Natural warmth inwards: too short sleep dries the body more. But there is less inconvenience from sleeping a little over largely, than too scantily, because sleep doth exceedingly moisten, which in this Feaver is very much to be desired. Let the Patient sleep in a soft bed, and that a Flock-bed, not a Feather-bed, and large enough. Let the Patients Linnen be often changed, which must be sprinkled with Rose-Water before they be put on.

If there be Costiveness, the Belly must be provoked with a Suppository, or a Clyster of Chicken Broth, with Barley, Mallows, and Violet Leaves boyled in it; adding Cassia, Honey of Roses, Butter, and the Yolks of Eggs.

Finally, The Mind must be preserved in peace and cheerfulness, avoiding vehement Perturbations, as Anger, Sadness, Fear.

As for point of Medicaments fit for Hectick Persons, they are Internal or External. Among Internal, in the first place Purgers must be considered; and because addition is more necessary than detraction in this Disease, Purgers can hardly be convenient, unless a putrid Feaver be joyned with the Hectick. Yet if the first Region of the Body seem filled with Excrements, because of Crudities arising from a weak Stomach, Purgation may safely be used with Cassia, Manna, or Syrup of Roses. Nay verily, if strength be not deficient, the Infusion of Rhubarb may be given, with a Decoction of Prunes, Tamarinds, Myrobalans, Buglos, and Violets.

But Altering Medicines may be reduced into the form of Juleps, Broths, and Emulsions, after this manner:

Take *Waters of Endive, Lettice, Sorrel, of each four ounces: Syrup of Violets, Water Lillies, Apples, of each one ounce. Mix all into a Julep for three Doses, to be taken at several times in one day, and to be continued for divers daies together.* Or,

Take *whol Barley one pugil: Leaves of Endive, Cichory, Lettice, Pimpernel, of each one handful: Flowers of Borrage, Bugloss, Violets, and Water-lillies, of each one Pugil: Damask Prunes three pair: Boyl all to a pint and an half. In the strained Liquor, dissolve simple Syrup of Cichory, and of Water-lillies, of each two ounces. Make of all a Julep for four Doses.*

Of the same Simples with a Chicken or a Pullet, may be made a Broth for the same use. Or,

Take *Roots of China one dram and an half: Entire Barley two pugils: the four greater cool Seeds half an ounce. Beat all together, and therewith fill the Belly of a Capon, or yong Pullet, and make Broth; to which add Sugar of Roses half an ounce. Let the Patient take of this broth a long time together. It restores flesh and fatness.*

Take

Take *ſweet Almonds blanched and infuſed in cold Water one ounce: the four greater cool Seeds, and of white Poppy ſeeds, of each one dram. Beat all together in a marble mortar, powring on by little and little a pint of barley Water. In the ſtrained Liquor diſſolve Sugar Cakes made with Pearl four ounces. Make hereof an Almond Milk for three Doſes.*

If we be minded more powerfully to cool, we muſt add to every Doſe of the Julep or Emulſion, two ſcruples or one dram of Sal prunella.

In the uſe of Refrigerating things, this is to be obſerved, That we uſe not the more powerful all of a ſudden, or frequently; for they might extinguiſh a weak heat. But it is better to cool by little and little, than ſuddenly. And Moiſteners are alwaies ſafer than Coolers, becauſe they exerciſe their Operations ſlowly.

While the foreſaid Remedies are uſing, we muſt be careful to ſtrengthen the Bowels, by a convenient Opiate, which may be made after this manner:

Take *Conſerve of the flowers of Borrage, Bugloſs, and Violets, of each one ounce: Conſerve of the flowers of Water-lilly half an ounce: Powder of the Electuary* Diamargaritum frigidum *four ſcruples: Shavings of Ivory, Bones found in hearts of Stags, of each half a dram: Pearls prepared, and Coral prepared, of each one ſcruple: three Leaves of Beaten Gold: With Syrup of Apples, make of all an Electuary.*

In extream conſumption of the Fleſh, nouriſhing Clyſters are frequently to be injected, of the Broth of a Chicken, or Weathers Head, with Sugar and the Yolks of Eggs. But their Quantity muſt be ſmal, or elſe compreſſing the Guts, they wil provoke the Expulſive Faculty to drive them our.

But among other Medicines moſt convenient for Hectical Perſons, Milk is a principal one, it being endued with all the qualities which can be deſired in this Diſeaſe, namely, of cooling and moſtening; it nouriſheth much, and is eaſily diſtributed into all parts of the Body. In the uſe whereof, the ſame Cautions muſt be obſerved, which were ſet down in the Cure of a Conſumption.

Among External Remedies, a Bath of freſh Water is principal; for it powerfully cools and moiſtens, and relaxeth the external Parts that they may more readily receive Nouriſhment. Among the Ancients the uſe of Baths was moſt frequent, and there were four parts of the bathing place: In the firſt ſomwhat warm, they put off their Cloaths: In the ſecond there was a bathing Veſſel of hot Water: In the third a bathing Veſſel of cold Water: In the fourth the Sweatineſs and Moiſture was dried off. *Galen* in 10. Meth. Chap. 19. doth thus moderate the uſe of theſe parts of the Bath; That the Patients ſhould be brought into the firſt part of the Bath, which was heated with the vapor of the bath, that the pores of their bodies might be opened; then being anointed with freſh ſweet Oyl, they were to be plunged in the hot Water to moiſten their bodies; and then they were of a ſudden to be thrown into the cold Water, quickly to be taken out again, and to be dried and anointed with Oyl, that the pores being cloſed, the moiſture may be received from the hot bath, might be retained. But inaſmuch as the Induſtrious Diligence of the Ancients in the uſe of bathing, is long ſince out of uſe; and our Practitioners have likewiſe left this Method of bathing Hectical perſons, which they judg unſafe, ſeeing it is to be feared, leſt by the ſudden receiving of the cold Water, the Patients Body ſhould be hurt, and the Patient not be able to endure the ſudden ſence of contrary qualities. So that our Practitioners do more adviſedly, and more compendiouſly, while they conveigh the Patients into a bath of Water moderately hot, in the morning, after a ſtool procured by Nature, or by Art, and two or three hours after they have eaten ſome broth, or milk, or the Yolks of Eggs; wherein they abide ſo long, till it grow luke-warm of it ſelf, and at laſt cold. For ſeeing *Galen* conceives the uſe of a cold bath after an hot to be ſo neceſſary, that without it the hot bath doth no good: the uſe of a cold bath is ſupplied, if the Patients ſtay ſo long in the bath til of it ſelf it grow luke-warm, and cold. But this Caution is to be obſerved, That whereas a three-fold quality may be had in the ſame bath, the Patient muſt abide in the hot a little while, in the luke-warm longer, in the cold leaſt of al.

And although the Ancients were wont to make their baths of ſimple Water; yet is it good to make them more moiſtening by boyling therein Emollient and moiſtening Herbs, as Mallows, Marſh-mallows, Violet Leaves, &c. or with barley and beaten Almonds, eſpecially in the Summer, becauſe a bath of Decoction of Herbs is ſooner corrupted. After bathing, the ſick is ſoftly to be wiped with hot Cloaths: then to be anointed with Oyl of Violets, ſweet Almonds, with freſh Butter; and after ſome time of reſt, let the Patient eat ſome broth, or other food.

A bath of Water and Oyl, is exceedingly cried up by *Zacutus Luſitanus*, in the 35. Obſervation of his third Book of wonderful Cures; wherewith he ſaies a yong woman was cured, whom a bath of ſimple Water and Goats Milk could not help. The reaſon of which great good, he renders to be this; Becauſe a bath made of freſh Water, with ſtore of Oyl in it, doth ſoften the diſtended ſtuff parts, doth moiſten the dry and withered: and by opening the pores obſtructed, and through dryneſs contracted, it draws the Nouriſhment to the outmoſt, and moſt diſtant parts of the body.

Where

When the Patient cannot use baths, apply an Epithem to the Heart and Liver, in this manner compounded.

Take *Waters of Roses, Water-lillies, and Purslain, of each three ounces: Juyce of Pome-Granates an ounce: Powder of* Diamargaritum frigidum *two drams: Bones out of the Stags Heart one scruple: Camphire four grains: Make an Epithem for the Heart.*

Take *Waters of Endive, Lettice, Cichory, of each three ounces: Vinegar of Roses one ounce: the three Sanders, of each two scruples: Burnt Ivory one scruple. Make an Epithem to be applied to the Liver.*

Also the Region of the Liver may be anointed with Oyntment of Roses, or *Ceratum Santalinum.* But Oyls and Unguents must be sparingly used, because they may somtimes encrease the Feaver.

Among the Symptomes which are wont to come upon this Disease, the chief is a Looseness, which is wont to bring the Patients to their death. This is to be bridled with a Decoction of French-barley toasted, for their ordinary drink, Syrup of Quinces, dried Roses, Chalybeate Misk, Rice boyled in Milk, and such like.

SECT. II.

Of Putrid Feavers.

The PREFACE.

Putrid Feavers are divided, into Continual, or intermitting. The continual Putrid Feavers are generated when a putrid Vapor, or a preternatural Heat, which ariseth from putrefied Humors, doth perpetually afflict the Heart, and stirs up therein a continual Heat; from whence likewise is perpetually diffused a Feaverish Heat into the whol body. But the intermitting Feavers are caused, when the said Vapors are carried unto the Heart, only at certain distances of time. Continual Feavers are again divided into Essential, and Primary, or Symptomatical. Those are called Essential and Primary, which spring from a putrefaction inflamed in the common Veins, and not in any particular part of the Body. Those are Symptomatical that arise from the putrefaction or suppuration of som particular part inflamed; out of which part by communion of the Vessels, a putrid vapor may continually be carried unto the Heart: Such feavers are seen in the Pleurisie, Inflamation of the Lungs, Inflamation of the Liver, and in the Inflamation of other Internal Parts. Again, the Primary continual Feavers are two-fold; for some are without any Exacerbation or Fits, and remission, but continue alike from the beginning to the end, and are called Sunochi, *or* Continentes. *But others have manifest Exacerbations or fits, and remissions, and are called* Sunecheis, *or* Continuæ, *by the name of the kind. And these again from the difference of their Exacerbations or fits, and remissions, are divided into three sorts. For some are called continual Tertians, which have their Exacerbations or fits every third day; others continual Quotidians that are exasperated every day; others continual Quartans, that are exasperated every fourth day. The intermitting Feavers or Agues, are likewise divided into Tertians, Quotidians, and Quartans, according as their Fits are wont to return every third, every fourth, or every day. There are other Differences of Feavers likewise, which are either Accidental, or arise from the Composition of those aforesaid; all which we shall Particularly and briefly Explain.*

Chap. 1. *Of Continual Putrid Feavers.*

ALthough there are divers sorts of a continual putrid Feaver, yet have I determined to describe the Cure of them all together, because in a manner the same Remedies are suitable to all, of which some differ only in more or less, and are accordingly to be varied; which depends more upon the Judgment of a Physitian, and his Dexterity attained by Practice, than upon particular Precepts, Yet shall I as neer as I can, observe what is peculiar to every sort of Feaver, in its peculiar place.

Feavers Putrid, Continual, and Primary, or Essential, are wont to be bred of the putrefaction of Humors, which are contained in the Veins and greater Arteries: And according to the various Nature of putrefying Humors, several Species do arise.

Synochus

Synochus Putrida is distinguished with no fits or exacerbations, but its whol time is taken up as it were with one fit, which reaches from the beginning to the end of the Disease and of this as of a simple Feaver there are made three differences. The first whereof is, that which continues all alike during from the beginning to the end. The second is that which encreases by degrees. The third is that which decreases by little and little. The first is named *Acmastica* or *Homotonos*, and it happens when the whol course of the Disease the manner of putrefaction is one and the same. The second is called *Epacmastica*, when more putrefies than is dissipated. The third is called *Paracmastica* when less putrefies than is dissipated. Yet allthough these kind of Feavers do perpetually increase or decrease, or keep the same Tenor: yet doth not this hinder but that they have four times, if they terminate in health; but some have them longer, others shorter, if they be considered according to the vehemency of the *Symptomes*. So that which is called *Homotonos*, hath a very breif beginning and Augmentation, but a long state. The Epacmastick hath a long augment: the paracmastick a long declination, but the other times do quickly pass away. Yet we must know, that the times of Putrid Feavers are two wayes considered; either with respect to the Symptomes, or with respect of coction and crudity; which two in other Feavers do commonly coincide or happen at one and the same time: But in these continent Feavers called *Sunochoi* it is not so. For their times ought not so much to be defined by the increase and decrease of the Symptomes, as by the signs of Concoction or non Concoctions, which appear cheifly in the Urines.

Now *Galen* propounds two sorts of this continent Feaver called *Synochus*: one springing from Blood putrefying, of which he treates in the second of this Method Chap. 7. and 9. as also in the 9. of his Method Chap. 3. and 5. another arising of choller putrefying in the greater vessells, of the kind of burning Feavers, which he explaines in his second of the Differences of Feavers and the second of Crises Chap. 6. The first is called *Synochus Sanguinea*; and the other *Synochus Bilioſa*. For allthough the whol Mass of Humors conteined in the Veins do go under the name of Blood, yet do we acknowledg four Parts thereof, of which the more temperate is specialy called Blood; the hotter Part Choller; the rawer and colder, flegm; and the thicker and more dreggy Melancholy. So then; if that more temperate Part, which is more especially called Blood, do surmount the rest in quantity, and the whol Mass putrefy, that Feaver is caused which we term *Synochus Sanguinea*. But if the thinner and hotter Part of the Blood, which is of the nature of Yellow Choller, do exceed the rest, and putrefy, that Feaver is caused, which we term *Synochus Bilioſa*.

Synochus Putrida is ingendred by the same causes which are wont to produce the simple *Synochus*. And so not only the shutting the pores of the Skin, but the obstruction of the vessells also, by reason of much Blood and thick and clammy Humors, is wont to cause this Feaver. For seeing by such like obstructions the Transpiration of Fuliginous Vapours is hindered, putrefaction is bred in the Blood redounding within the Veins.

A continual tertian, which every third day doth more afflict the Patient than ordinary, takes its Rise from bad and Cholleric Blood putrefying in the *Vena Cava*. And the Causes thereof are all such things as multiply this Humor in the Body, as an hot and dry distemper of the Liver, Meats hot and dry, Youthfull Age; fasting or very spare Diet; vehement and frequent exercise; hot and dry constitution of the Air; over great watchings and such like.

A continual Quotidian (which the Barbarous Writers term *Latica* or lurking, because it hath a certain, hidden and concealed heat) is produced by flegmatick Blood putrefying within the Veins; & therefore it hath its exacerbations or fits every day. It is wont to assail flegmatick bodies, as of Infants and Children and old men, as also of such as are of a fat and corpulent constitution given to idleness and cramming of bellycheat, and inhabiting moist places. This kind of Feaver happens but seldom because flegm is hardly putrefied.

A continual Quartan, is that which is exasperated every fourth day, being Caused of Melancholly Blood putrefying in the branches of *Vena Cava*. And all things may Cause this Feaver, which are apt to breed Melancholly Blood and to Cause the same to putrefy. Howbeit this kind of Feaver is most rarely observed.

The accidental differences of Feavers are taken from their evil Symptomes, which are wont to be complicated with the Essentiall, and from them they are named. Among these are wont to be reckoned *Febris Ardens* that is the Burning Feaver, *Colliquans* the *Melter* or dissolving Feaver; the shivering Feaver *Horrifica*, *Assodes* the tumbling, tossing and vomiting Feaver; *Elodes* the sweating Feaver; *Syncopalis* the swouning Feaver *Epiala* the Feaver which makes the Patient hot and cold at one and the same time.

Causus or *Febris Ardens* the burning Feaver, is properly that, which is perpetually accompanied with these two symptomes viz. an ardent burning heat, and an unquenchable thirst though the Patient drink never so much. *Galen.* 3. Epidem. Com. 3. text 34. It is divided by the same *Galen* in *Com.* 4. *de Vict*: *Rat*: in *acutis text.* 13. into a Ligitimate or bastard burning Feaver. The Legitimate or exquisite burning Feaver is that, which hath the two symptomes aforesaid,

foresaid, allwaies, and evidently conjoyned therewith. The bastard, in which those symptomes are lets vehement, the thirst less Urgent, and the body not so burning. The Ligitimate is Caused by a Chollerick Humor putrefying within the large Vessels near the heart; the bastard is caused by Choller mingled with Flegm or Salt Flegm putrefying in the Vessels aforesaid. Whence it appeares that a Ligitimate burning Feaver is no other, but a continual *Tertian* Feaver, whose Matter is more sharp and plentiful than ordinary and conteined in the larger Vessels which are neer the Heart; whereas the Matter causing a simple continual Tertian is in Vessels Remoter from the Heart. Again there are two sorts of an exquisite burning Feaver the one from the beginning to the end hath one only accession or fit, which we before named *Synochus Biliosa*, and it is likewise called *Synochus Ardens*; which is caused when the Humor putrefying doth occupy al the Vessels which are most neer the Heart: the other is named *Ardens Periodica* and conteines in it self divers fits or accessions; it is caused by the same Choller conteined in the Vessels neer the Heart, but not in al or not so neer as in *Synochus Ardens*. So that a Continual Tertian, *Synochus Ardens*, and *Ardens Periodica*, do differ one from another, only as the Choller causing them is more or less sharp, plentiful, and neer the Heart.

Febris Colliquans, the Melting Feaver is of the kind of burning Feavers, which in regard of the exceeding heat, doth suddainly melt the Fat, Flesh, and substance of the solid Parts, and sometimes the Blood conteined in the Veins, and dissolve the same, by insensible Transpiration, Sweats, Urines or Stools. It is wont to be caused by a thin, sharp and Chollerick Matter, which is vehemently inflamed, and *Galen* teaches that often times there is adjoyned thereunto a malignant and pestilential Quality. Comment in 3. *Epid. Sect.* 3. *Sent.* 57.

Horrifica Febris, in Greek *Phricodes*, is that Feaver in which the Patient doth often undergo shaking fits, it is caused by a mingled Matter, viz. Partly Chollerick and Partly Flegmatick or wheyish, which being unequally moved is wont to excite those Horrors or Shakings; either because the thin sharp and wheyish Matter, doth twitch and nip as it were the sensible and membranous Parts; or the inflamed Choller doth putrefy and put in motion the crude Humors; or because Nature doth in Vain seek to shake of the crude undigested Humor whereupon the Heat being driven Back to the Centre the Extream Parts of the Body are cold; and afterwards, when the same blazes out again, they grow hot.

Assides Febris, the Feaver so called, is a kind of burning Feaver, in which the sick do tumble and toss and are exceeding unquiet, much oppressed with the disease, being for the most Part subject to stomach sickness and vomiting. Because it is wont to arise from the vexation of the Stomach by sharp and Chollerick Humors, biting the orifice or Coats thereof.

The Feaver *Elodes*, is that in which the Patient prepetually Sweats: and it is caused by a mighty Putrefaction or Maligunty of Humors, dissolving the Substance of the Body.

The Feaver *Syncopalis*, is that in which the Patient often Swoones and Faints away. *Avicenna* makes two sorts hereof, one of thin sharp and Venemous Choller: another of much Flegm, or abundance of crude Humors. The former is called *Syncopalis Minuta*, because it arises from a little Quantity of Humor, but thin and malignant. The latter *Avicenna* doth call *Syncopalis Humorosa vel Repletionalis*, because of a great Quantity of crude and Flegmatick Humors abounding therein and there is also Joyned a weakness of the mouth of the stomach, by which means especially the sick persons come to Swoon so often.

That Feaver is by *Galen* termed *Epiala* 2. *de diff. Feb. cap.* 2. *& Lib. de inæquali intemperie cap.* 8. in which at the same time, through the whol Body in the smallest particles thereof there is felt both cold and heat. For, albeit one and the same Part cannot be the subject of contrary qualities: yet is that which hath been said of this Feaver to be understood of the smallest particles in respect of sense, but not indeed and in truth. *Galen* shewes that this Feaver is caused two waies; the one is by means of Glassy Flegm mingled with bitter Choller and so diffused into the whol body. For Choller causes a sence of heat and the Flegm a sence of cold. The other is by means of Glassy Flegm alone, but partly putrefied and partly void of putrefaction. For, inasmuch as Glassy Flegm is extream cold and clammy, it doth not readily putrefy, nor al at once, but only by peecemeal; so that one portion thereof being putrefied the other remains unputrefied. That Part of the said flegm therefore, which is not putrefied being shed among the sensitive Parts, causes a sence of cold, by reason of the extream coldnes thereof; and that which is putrefied causes a sence of heat. And so the whol body at one and the same time feels both cold and heat. *Platerus* also hath invented a way how this Feaver may be bred, viz. when intermitting Feavers, or Agues, do one fal upon the Neck of another the same day in the same Patient, so that the cold fit of the latter Ague begins, ere the hot fit of the former be ended; or else when intermitting Feavers concide with those which are continual, so that the heat of the continual Feaver and the cold of the Intermitting, happen at one and the same time.

There are likewise other accidental differences of continual Feavers, which because they are wont

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to be reckoned among the Symptomatick Feavers, they shal be discussed forthwith in the Description of the said Symptomatick Feavers.

Now although the Cure of Symptomatick Feavers depend upon the Cure of those Diseases in particular, from whence they arise, yet must we declare their Nature, least they come to be confounded with Essential or Primary Feavers.

Those therefore are called Symptomatical Feavers, which arise from the Inflamation and putrefaction of Humors conteined in some of the Bowels. Of which kind are those Feavers which accompany the Pleurisy, Inflamation of the Lungs, Frenzy, Squinzy, Inflamation of the Liver, and other Inflamations, Ulcers or Impostumes of the internal Parts.

And it is diligently to be observed, as a thing of great moment in Practice and by few taken notice of, that al Feavers perpetually which are Joyned with Inflamations of the Parts of the Body, are not Symptomatical; But that some of them are essential & the foresaid Inflamations do follow upon them. For it often falles out that Blood corrupted or filled with evil Humors, after it hath raised a Feaver, comes to be agitated by Nature and her as hurtful to her expelled to the weaker Parts, or to such as are most convenient to receive them: whereupon an Inflamation is caused in those Parts, which doth not cause the Feaver, but is rather a Consequent thereof. So we may often see in the Course of our Practice, the Patients sick of a continual Feaver, for a day or two before Pain in the side and other Signes of a Pleurisy appears So many on the third or fourth day fal into a Phrensy; so, al Gouty persons in a manner, before they are troubled with Pain, swelling and Inflamation of their Joynts, are wont to have a continual Feaver for a day or two. So they which have the Rose or Saint *Anthonies* Fire, have a Feaver somtime, before the swelling break forth. The same thing appears by the Urine, which in such Inflamations as these, do shew manifest signs of putrefaction in the Veins. For in the beginning they appear crude and undigested, and in the progress, they shew tokens of concoction dayly encreasing. Also Blood is often taken away very corrupt. Which things would not happen if such Feavers were only Symptomatical, simply depending upon those Inflamations.

And these Feavers whether they be Symptomatical or primary and attended by Inflamations of the Parts, have their accidental differences. For if the Inflamation be of Blood, the Feaver is called *Phlegmonodes*: if it be of Choller, *Typhodes*. And peculiarly an *Erysipelas* or Cholerick Inflamation of the stomach and Guts brings the Feavers called *Zipyria*, in which the outward Parts are very cold and the inward Parts burn. For the inward burning doth draw the Blood and spirits to the Part inflamed; whereby the heat is so encreased, that the inward Parts seem to be burned with unquenchable thirst, but the outward are cold, being destitute of heat and spirit.

Lenta Febris, the slow or Lingring Feavers, is wont also to be reckoned amongst Symptomatical Feavers, which arises from some hidden obstruction and putrefaction, sticking so close to some Bowel and so impacted, that the substance of the Bowel is for the most Part Vitiated. And when a portion of the putrid Humor is shed into the Veins and mixed with the Blood, it stirrs up a slow Feaver, and so mild, that it troubles the Patient with no greivous symptom, yea and the Patient is scarse sensible of any Feaver. Yet some notes of putrefaction appear in the Pulse and Urin. And somtimes this *Febris Lenta* is bred of the putrefaction and corruption of some of the bowells; because by the Veins inserted into that Bowel, putrid and hot Vapors do breath unto the Heart. Such a kind of Feaver is often bred in the Consumption of the Lungs, which degenerates into an Hectick. It is also somtimes caused when the substance of the Liver or spleen corrupts: or when putrefaction settles upon the Mesentery, the Caul or the Pancrea, or other Parts; or also somtimes when the Child or After-birth are corrupted in the Womb. And hence not only slow Feavers, but somtimes also acute ones do arise, according to the different Nature of the putrefactions. And finally, to this kind of slow Feavers, those are to be referred, which are found in Cachectical persons, and in Maids which have the Green-Sickness; which *Fernelius* conceives do arise from a light putrefaction of wheyish flegm shed abroad in the Body.

Besides these forenamed differences of continual Feavers, which are most frequent, and are commonly set down by Authors; there are also some other, arising from peculiar and extraordinary Causes, which somtimes we meet with in our Practice. The Case of a certain Infant may serve for example, propounded by *Zechius* in his 46. Counsel. The Infant was scarce two yeares old, and had a continual Feaver, with most greivous Symptomes viz. Unquietness, convulsions, and continual stomach Sickness enclining to Vomit; and it was conjectured that there was some Maligny adjoyned, because such greivous symptomes did not answer to that Feaver. For al the external Parts were cold, though the inner Parts were burned with heat, as appeared by the heat about the brest and under the short Ribs, and also from the dryness and blackness of the Tongue. The Cause of which was blood putrifying conteined in the stomach. For this Infant being tongue-tied, was lately cut by a Chirurgion, in which work some Veins or other was opened which shed some blood into the stomach, which putrefying there, by sending forth hot, putrid, and as it were poisonous Vapors into the heart and Brain, was the Cause of al the symptomes aforesaid. But how,

this cause was found out and removed, it is worth the while here to recite, out of the Story of *Zechius*. *So often* (quoth he) *as I diligently consider with my self, how hard a thing it is to understand internal Diseases, and their causes, I come easily to be of the mind that* Hippocrates *in his second Book of vulgar Diseases, Sect. 4. did not without greatest premeditation leave in writing; then in the Curing of all hidden Diseases, the Physitian must diligently enquire the first assault of the Disease, that is to say, the first occasion of the Patients illness. For of that for the most part depends the knowledg both of the Cause and Cure. See an Example hereof: This Disease of the Gentlemans Child was very acute, and the Cause very hard to find, had not I diligently asked of the Parents touching the conditions of the Child and the Nurse; who told me that two daies before its being first ill, a certain Chyrurgeon had cut the Membrane, whereby the Tongue of it was fastened to the parts beneath it. And when I again asked them, if presently after this was done, they had caused the Child to be held forward, or if any blood had come out of its mouth; they said no, it was neither so held, neither came any blood from the mouth of it. Whereupon I presently conjectured, that blood was fallen from the place cut into the Stomach, and there putrefied, and was the cause of the Disease, and Symptomes aforesaid. Neither did my Opinion deceive me; for having given it Oyl of sweet Almonds to make it vomit, it uttered a considerable quantity of clotted blood, and materish. Also it voided with a Clyster many clodders of blood. And presently, by the blessing of God Almighty, the Feaver was abated, and all Symptomes began to cease. Whereupon it fell greedily and lustily on sucking its Nurse, and all the following night it slept quietly, and was afterward perfectly well.*

The Diagnostick Signs of putrid continual Feavers, do some of them shew the continuity, others the putrefaction, and the rest the peculiar differences of them.

The continuity is easily known, in that the Feaver is continual, and hath no intermission.

The putrefaction is signified by a sharper heat than ordinary, and more biting, and by a sharp and biting Sooty vapor, produced by the exhalation of putrid Humors. The pulse is not only great and frequent, and oftentimes unequal; but it hath this peculiar property, That the Systole is quicker than the Diastole; because the Expulsion of Sooty Excrements is more necessary than refrigeration. The Urins are in the beginning crude, or very little digested The Exacerbations or fits keep their certain times, which yet is not to be understood of the Feaver Synochus. A cold shaking fit at the beginning of the Disease. Hereunto are added various Symptomes, commonly accompanying putrid Feavers, as Ilness of stomach, vomiting, heavinesse of the body, pain of the head, raving, giddiness of the head, hiccoughs, anxiety, heart-burning, thirst, roughness and blackness of the tongue, stretching of the parts under the short ribs, and the rest. Before which preceded, wearinesse without labor, pursiness, troubled sleeps, watchings, tension of the parts under the short ribs, difficult breathing, pain and pulsation of the head, stomach-sickness, want of Appetite, plenty of stinking Excrements, frequent yawnings and reachings, or some of these.

But the peculiar Differences of continual putrid Feavers, may be discerned by these Signs following:

A continual putrid Feaver, called *Synochus putrida*, hath the same signs which were propounded in *Synocha simplici*, but more vehement; for the heat is more sharp, the watchings, head-ach, thirst, disquiet, and other Symptomes are more vehement; also the pulse is unequal, so that the Systole appears greater than the Diastole, the Urines are crude, red, and thick.

The Signs of a Feaver from Choller, are burning pain, a pulse mighty frequent and swift, a sharp Urine, fiery, in the beginning alwaies crude, without Sediment; Stomach-sickness, Chollerick vomitings, and Stools Chollerick, much anxiety, mighty thirst, bitterness of the mouth, driness and blackness of the tongue, watchings, raving, and an ulcerous kind of wearinesse, foregoing, paleness of Face, or a citrine Color, youthful Age, temperature hot and dry, Summer season, hot and dry Diet, Chollerick Evacuations suppressed. And a continual Tertian is distinguished from a *Synochus biliosa*, or continent Feaver springing of Choller, because it hath Exacerbations or fits every third day, but the *Synochus biliosa*, keeps stil one and the same tenor.

The Signs of a continual Quotidian are, Heat at first rather vaporous than biting, afterwards somwhat sharp, but unequal, because of the thickness of the Humor which is difficultly dissolved; the Urines are at first white, watry, troubled; afterward somwhat red and thick; the Pulse is seldomer, slower, and less than in the rest of these Feavers; thirst little or none; seldom sweat, unless there be salt flegm; the Face of the Patient is somwhat bloat or blown up, lax, flaggy, and as it were Lead colored; Drowzinesse, want of Appetite, flegmatick Excretions, a cold and moist Temperament, old Age, Winter Season, Cold and Moist Diet, Evacuations suppresst, and a dayly Excretion of the Disease.

A continual Quartan is known by these Signs. The Heat is less sharp than in Feavers of Choller, yet sharper than in Feavers of Flegm; likewise Thirst greater than in a Quotidian, and lesser than in a Tertian; a Pulse in the beginning slow, rare, languishing; afterward stronger, frequenter, and very

very unequal. The Urine in the beginning thin, afterwards various; the body dry and lean, of a tawny or swarthy color; Temperament cold and dry; Age inclining; Autumn of the Yeer, or very changable weather; a life intangled with many Cares and Studies; suppression of the Hemorrhoids; Swelling of the Spleen, and Exacerbation or vehemency more than ordinary of the Feaver every fourth day.

The Signs of a *Cauſus* or burning Feaver proper to that Diſeaſe, were propounded before, viz. a burning heat of the Body, and an unquenchable Thirſt. Yet it is to be marked, if any Cough ariſe, that the Patients Thirſt is thereby diminiſhed, viz. by ſuch moiſture as is drawn by the Cough out of adjacent parts; howbeit, the Cough is never wholly taken away while the Feaver laſts. The other Signs are all ſuch as we have before ſhewed, do ſignifie a Feaver from Choller. Yet the ſigns which ſignifie a baſtard burning Feaver, are much more remiſs than the foreſaid.

A melting Feaver is known by a ſudden Conſumption of the Body, and growing lean; the Eyes are hollow, the Temples fallen, Nole ſharp, Stools red, fat, ſtinking, clammy, corpulent, ſincere, chollerick, and frothy; the Urines, fat and Oyly.

The Shivering Feaver, and the tumbling and toſſing Feavers are to be known, by what is ſaid of them in their Deſcriptions.

In the Feaver called *Elodes*, the Skin is ever moiſt with a clammy moiſture, and the heat to feel to, is not very ſharp. Malignity is diſtinguiſhed from the largeneſs of putrefaction; becauſe in Caſe of malignity, the Urines are in a manner Natural, or appear not much different from the Natural; or ſomwhat ſwins in the Urines like a Spiders Web, when the Fat melts; or if with the Urine there comes away ſomwhat like Vetches or Barley, which ſignifie a melting of the fleſh; or finally, abundance of Urine coming divers daies together, when the blood and humors are melted. Add hereunto an extream decay of ſtrength; a ſmal contracted Pulſe, not very frequent. In great putrefaction the Urines are thick and troubled, the Pulſe great, ſoft, and frequent.

Syncopalis Febris, viz. the Swooning Feaver, is known by fainting fits, and ſwoonings frequently befalling the ſick. And that ſort called *Minuta*, is diſtinguiſhed from that *Humoroſa*, becauſe in the former are ſeen the ſigns of a Chollerick, in the latter of a Flegmatick Feaver, as they were lately ſet down.

The Feaver *Epiala* is known only hereby, That at the ſame time, heat and cold is felt in the whol Body.

Finally, Symptomatick Feavers, and ſuch as are called *Comitatæ*, are known by what hath been ſaid of them in their Hiſtories, or Deſcriptions.

Now in every of theſe ſorts of continual putrid Feavers, the Prognoſtick Signs are to be deſcribed, by which their events may be preſaged.

And firſt for *Synochus Putrida*, ſeeing it is of the kind of acute Feavers, it is not without danger. Yet if ſigns of Concoction do evidently appear upon the fourth day, and no error be committed, it will terminate towards health the ſeventh day. But if the Signs of Concoction appear later, it may reach unto the eleventh or fourteenth day. But if no ſigns of Concoction appear, and the ſick have a round ſwollen Face like a Globe, it ſignifies the Diſeaſe will be long. By how much the Urine is redder at the beginning, other ſigns corresponding, by ſo much ſafer it is, and ſignifies the Diſeaſe wil ſoon come to an end, if there appear therein ſigns of Concoction; but with ſigns of Crudity it threatens death, eſpecially if the party be weak. White Urine is the worſt of all, and commonly portends death. Among the Differences of *Synochus*, *Paracmaſtica* is more ſecure, *Acmaſtica* more dangerous, *Epacmaſtica* moſt dangerous of all. Furthermore, an exquiſite *Synochus*, and benign rightly Cured, is ſafe; a baſtard one that hath malignity in it, with cruel Symptomes, and ſtrength decayed, is dangerous.

Chollerick Feavers, inaſmuch as they are acute, are alſo dangerous; and that more or leſs, according to the more or leſs diſtemper, vehemence of the Symptomes, and validity of the Patients ſtrength. The diſtemper is meaſured not only abſolutely by the degree of Heat it ſelf; but alſo comparatively, with reference to the Natural Conſtitution of the ſick party; ſo that look how much the heat is encreaſed above the Natural temper of the Patient, ſo much the greater is the danger. So a burning Feaver in an old Man, or in Winter, is for the moſt part deadly. The vehemence of Symptomes, is conſidered in actions Animal, Vital, and Natural; in Excrements, qualities changed, and proper adjuncts; whoſe enumeration requires a work by it ſelf, according as we have expounded them, in the third Section of our *Semiotica*, or Doctrine of Signs, out of *Hippocrates* his Aphoriſms, Prognoſticks, Predictions, and his Coic Prænotions, which may eaſily be transferred to this place. And finally, the ſtrength of the Patient muſt be compared with the vehemence of the Symptomes; For if the ſtrength be luſty, and likely to hold out againſt the Cruelty of the Adverſaries, there is good hope; if not, we may juſtly fear the Patients death.

A continual Quotidian, is wont to be long by reaſon of the thickneſs and contumacy of the Humor: but if divers Evacuations happen in its courſe, it is wont to be the ſhorter. We muſt meaſure the

danger

danger thereof, by comparing the vehemence of the Symptomes, with the Patients strength. And the cheife care ought to be least it degenerate into a Cachexy or dropsy, by reason of the obstructions of the Liver and spleen, which happen in these long Feavers.

A Primary continual Quartan is most rare, yet somtimes an intermittent Feaver or Ague degenerates thereunto, and then for the most Part deadly.

The melting, shaking, Tumbling, Sweating and Swouning Feavers, seeing they borrow their Names from such bad symptomes as they are attended with; they are in regard of such symptomes extream dangerous, and for the most Part is deadly.

Finally, the Prognostick of Symptomatick Feavers, is to be gathered from the Excellency of the Parts affected, vehemence of the Symptomes and Validity of the Patients strength.

Now in the Cure of al putrid Feavers, we must take our Hints or Indications from the Feaver, from its Cause and from the Patients strength. The two former indicate their own ablation or removal; the third, its own Preservation. Which must be done by assistance of those ordinary Medicinal Utensils viz. Diet, Manual Operation, and Medicaments.

The Diet in all Chollerick Feavers ought to be cooling and Moistening, in flegmatick and Melancholick more warming and attenuating. Let therefore the Air be cold and moist, which being drawn in by the Lungs unto the heart, doth exceedingly temper the burning heat thereof. Yet must not the Patient be laid bare to the cold Air, because transpiration, which is exceeding needful, would by that means be hindered; and the sooty Vapours and sweats would be driven back again into the Body. Howbeit the sick must be covered only with light and soft Coverings, and not loaded with over many blankets or Rugs. also the Feather-bed must be taken away and a flock-bed put in place, upon which also in the extremity of Summer a covering of Leather wil conveniently be laid on. Let the bed be wide, that the sick may change place therein. Let the Patients Linnen Shifts be often changed contrary to the vulgar opinion; provided they be not newly washed, nor smel of Soap, and that the Time of the Crisis be not at hand, in which nothing is to be stirred, least the motion of Nature be hindred and disturbed. The Sun-beams are to be kept out of the Patients Chamber, and store of Company is to be avoided. Water is often to be powred out of one Vessel into another, in the sick Persons chamber. The Pavement of the Chamber is to be sprinkled with Water, Vinegar and Rose-Water mingled; or with cooling Herbs and flowers; as Vine Leaves, Willow Leaves, Leaves of Water Lillies, Flags; Roses, and flowers of Violets and of Water Lilly; which must be kept at hand in good Quantities in a cool place, and be often fresh sprinkled and strowed about the Patients Chamber; for when these Herbs and flowers are dried, they heat the Chamber. If the Chamber be cold, as in winter, it must be a little tempered with a fire avoiding Smoak. Howbeit in flegmatick Feavers the Air must be Moderately hot and dry.

As for Point of Nourishment, the Diet ought to be thin and spare in acute Feavers. And therein the Antients were so severely diligent, as to place the greatest Part of the Cure in ordering the Diet, enjoyning such as were sick of a most acute Feaver, to keep a most thin and slender Diet; and giving them nothing but a ptisan drink of Barley Water, as most convenient for persons in a Feaver; seeing it cooles, and Moistens; withal extenuating and opening and hindering no Evacuation. And they had two kinds of Ptisans. One simply so called, or whol Ptisan not strained; the other was strained, which we cal Barley Cream. Barley cleansed of the Husks boyled in fair Water, to a Consistency or Pottage, is the whol Ptisan; this being strained with pressing, is called Cream or Juyce of Barley.

But in our Times, at least in our Country, by the refractoryness of Women [who fear nothing but that the sick person shal be starved, as al their care in a manner is to cram their Children with meat like Pudding Bags, how empty their Brains be of wit, or their Hearts of Grace and wisdome, matters not] and the Indulgence of Physitians [who the best of them smel too strong of the Mountebank] it is grown into a fashion in al Feavers, yea the most acute and violent, to allow the sick at al times broaths of the flesh and Hens Chicken, Capons mutton; and that for the most Part they give every third or at most every fourth hour. And in the Summer the flesh of a pullet, kid or Lamb is added to the former Diet. And somtimes again broaths are made of nothing but a chick with cooling Herbs, as Lettice, Endive, Sorrel and Purslan. Or to ordinary broaths is added Juyce of Oranges, Lemmons, or Pome-Granats, when the heat of the Feaver is very great, or the putrefaction very intense.

Moreover in Feavers not so very acute Panadaes are given twice or thrice in a day made of washed bread and broath. Also Barley broaths are somtimes used of the Ptisan of the Antients being strained, with the broath of the flesh aforesaid, and Sugar; or without broath, adding sweet Almonds. But these for the most Part do oppress the stomach, and therefore the use of simple broaths and Panadaes seems more convenient. Howbeit very profitable it it to boyl a little Barley with flesh and thereof to make broaths.

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In long Feavers, a fuller Diet is fitting, of the flesh of Chickens, Veal, Hens and Pullets, Capons, Partridges, Mutton, or of the Juyce pressed out of them, Gellies made with them, and such like.

Concerning the time of giving the Patients meat, this is principally to be observed, that they never eat in the time of the Exacerbation or fit but in the time of the Feaver. But if the Exacerbation be very long, let the Patient eat in the declination thereof.

For drink, the Ptisan of the later Physitians, made of the Decoction of Barley with Liquoris, is usually given in all Feavers. To which if the Feavers be very burning may be added a little Lettice, Sorrel, Tamarinds. But more ordinarily are added the Roots of Grass or Sorrel which makes the Water look of an Elegant Colour like Wine. But in long Feavers may be added sweet fennel Roots, Parsley Roots, Annis Seed, Coriander Seed, or Cinnamon, as oft as the stomach through weakness is offended with drinking.

Take *of the ordinary Ptisan-drink of Barley and Liquoris two pints: spirit of sulphur as much as shall suffice for to make it pleasantly tart. Harts-Horn burnt till it be white one ounce: Let the Patient use it for ordinary drink, shaking the Vessel before it be powred forth.*

Also Water that hath had a peice of bread boyled in it either by it self or sweetned with Sugar is good; or mingled with a little Vineger; or Water alone, boyled to take away the Crudities; wherewith sometimes a little Suger is mixed, and sometimes a little of the Juyce of Lemmons, Pomgranats, Barberries, Cherries, or of their Syrups; or as much spirit of sulphur or Vitriol as may serve for a great full Acidity; or a little *Sal Prunellæ*, if need be of potent refrigeration.

Water is commended wherein are steeped Tamarinds, Berberies, or Prunes.

A Decoction of french Prunes is very pleasing to the tast.

Or Barley is boyled with Tamarinds, and towards the End, the broath is Aromatized with yellow Sanders and Cinnamon. Which drink doth not only Quench thirst, but loosens the belly, and cools and strengthens the Liver.

Take *Sugar eight ounces: Sal Prunellæ one ounce: Make it into a Pouder, to be taken with the Patients ordinary drink. Whereunto if thirst be extream, the spirit of vitriol may be added.*

Touching spirit of Vitriol and of Sulphur, this is diligently to be observed, that in putrid Feavers the use thereof is great, because they have a mighty cooling, opening, and putrefaction quelling faculty; prohibit the Inflamation of the Humors, and quench thirst. Howbeit in the Pleurisy, Inflamation of the Lungs, Spitting of blood, Consumption of the Lungs and other Diseases thereof (unles they spring from thick flegm stopping the Vessels thereof) Inflamation of the stomach, Dysentery or bloody flux, Pissing of blood, Ulcers of the Kidneys and Bladder, they do very much hurt and therefore we must abstain form them.

In Feavers arising from very thin and hot Choller, or Joyned with a sharp thin distillation, sharp things are not convenient; but rather such as gently thicken, as Syrup of Violets, of dried red Roses, with Barly Water, or Bread boyld-Water, or simple Water boyled, or smal beer, mixed therewith.

Where thick and clammy humors abound, the Syrup of Vineger will be very profitable. in stead of those last named.

Also sometimes Conserve of Roses, Violets, or Borrage is wont to be mingled with cleer Water boyled, with Barley Water, and to be strained through an Hippocras bag for ordinary drink, unto which some drops of spirit of Vitriol may profitably be added. Or a Tincture of Roses is made after this manner, most delightful in colour and in tast.

Take *Red Roses one ounce: Bloodwarm Water three pints: spirit of sulphur or Vitriol one dram and an half: Let them stand infusing cold for three or four hours. To the strainings add, white Sugar, four ounces: Rose-Water half a pint: Make thereof a clear Julep for ordinary drink.*

Also Julepus Alexandrinus, is very good, and extream pleasant. It is thus made.

Take *Fountain Water one pint: Rosewater, Juyce of Lemmons, and white Sugar, of each four ounces: Boyl them over a light fire till you have taken away the Scum.*

As for other things pertaining to Diet, Sleep is extream good and watchings bad. Yet over much Sleep doth overwhelm the natural heat and hinder the Evacuation of excrements. Rest is necessary in acute Feavers; but in long Feavers, light and gentle exercise is good. Also we must endeavor, that nothing be retained which ought naturally to be expelled; howbeit al immoderate Evacuations, which exhaust the strength, are to be stopped; and al vehement Perturbations of mind, must be turned out of Doors.

Among manual Operations, Blood-letting holds the cheifest place. for it doth not only diminish plenitude, whether it be a simple fulness so as to stretch the Vessels, or only a fulness with reference to the strength of the Patient; whether it be in the whol body or in some Part; but also revels the influx of Humors Causing obstructions; cools the whol body and makes it perspicable; keeps back putrefaction, and furthers the concoction of putrefying Humors. Presently therefore, and at the

beginning

beginning of the Disease, blood must be drawn (unless weakness hinder, as in the Swooning Feaver, and other like Cases) and that after the Belly hath been loosened with a Clyster, or a Suppository. How much blood should be taken, is gathered from the Patients strength, from the greatness of the Plethora, Custom of the Patient to bleed or not to bleed, and other circumstances. The Antients in the *Synochus Putrida*, and the burning Feaver, did let blood til the Patient fainted away. But it is much more safe (as we have said in the Cure of a simple Synochus) to take away at several times so much as shall be sufficient; then suddenly to put the Patient in danger of death. *Avicenna* in a burning Feaver, and in a continual Tertian, doth forbid letting blood, unless the Urine be thick and red. For he fears lest Choller should be the more inflamed, which he saith is bridled by Blood. But the wiser Physitians do explode this Opinion of his, seeing these kind of Feavers are often terminated even by Nature her self, by bleeding at the Nose; and they do sometimes cause Frenzies, and other Inflamations: and finally, because Blood-letting doth potently refrigerate, doth rather stop than further the Ebulition, or boyling and working of the Blood, and Choller comes away as wel as Blood when a Vein is opened; so that in that Mass of Blood, which is in the greater Veins remaining, there is the same proportion of blood to Choller which there was before. Nay verily, when a Vein is opened, if the sick party be any thing lusty, and the blood flow amain, only the putrid Blood which is offensive to Nature is voided, the purer remaining in the Veins; which few Authors have taken notice of, although it be in the course of Practice every where observable. For if the Blood flow out of the Vein drop by drop, it is the purest Blood, because it comes out of the Vein by its own proper motion. But if it spring out with a forceable stream, it appears foul and corrupted, Nature expelling the worser part of the Mass of Blood. Howbeit Blood is more sparingly to be taken from such as are of a very Chollerick Constitution, in the middle of Summers Heat, and the Dog-Daies, than in other Natures and times. But in Flegmatick and Melancholick Feavers, Blood must be taken away in lesser quantity: and evermore great regard is to be had to Coindicants, and Contraindicants; forasmuch as Quotidian Feavers do for the most part happen unto Children, or old Persons in cold Countries and cold Seasons of the yeer; which considerations do lessen the Quantity of Blood, which otherwise the Disease, or its Cause require, should be taken away. When the Feaver is caused by over much labor, blood must be taken away more sparingly. If a Feaver happen by over great use of Carnal Embracements, Blood-letting is pernicious.

Concerning the time of Blood-letting, it is to be noted, That a Vein must not be opened presently after the Patient hath eaten; but after Digestion is past, and after the Patient hath been at stool. Again, Blood is to be let when the Feaver is most remiss, and not in the vigor thereof, for then Nature is not able to bear both the violence of the Disease, and the loss of Blood. As for the repletion of Blood-letting, if the same be necessary, to cause Evacuation, it must be repeated the same day; if for Revulsions sake, on another day. For where Evacuation is necessary, especially in acute Diseases, the Body must be suddenly changed into another condition; also it often happens, that a Disease is quickly past its first time or beginning, so that afterward we cannot so conveniently open a Vein. But in Revulsion we have respect to the motion of the Humors, which is then best ordered, when it is done at divers times, some space being interposed, whereby Nature becomes accustomed to a contrary motion. For in the space between Bleedings, the Blood which was shed into the parts regurgitates into the Veins, and by another Blood-letting is profitably drawn forth. We understand that Blood-letting must be iterated, if that blood which was first drawn forth, were very much corrupted; and there is reason to think, that there is yet a great quantity thereof abiding in the Veins.

Yea verily, Although the Blood at first seem pure, and uncorrupted, yet must we not desist from taking the same away, but continue so doing until it appear more impure and corrupted. And truly that Precept delivered by *Hippocrates*, in his 4. *de Victus Rat. in Morbis acutis*, in the Cure of a Pleuritie, may very profitably be observed in acute Feavers, viz. That Blood-lettings be so long continued, til the blood change color; so that if at first corrupt blood come away, we must let it run till it appear more pure; and on the other side, if at the first the blood appear laudable, we must suffer to flow, til that which is impure and corrupted be come away.

Yet is there some diversity to be observed in both Cases. For if at first good Blood come away; blood ought to be again taken from the same Vein; that putrid blood residing in the innermost parts of the Body, may the sooner be drawn forth. But if at first corrupt blood be taken away, blood is next time to be taken out of the other Arm, and afterwards out of the former again, and so in course as oft as need shal require.

But if the Symptomes declare, that the Putrefaction is in the inner branch of the *Vena Cava* descendent; as heat and pain in the Loyns, redness and thickness of the Urine: after two or three Blood-lettings in the Arms, it wil be convenient to draw Blood out of the *Vena Saphena*, two or three several times.

If in the latter Blood-lettings, some part of the Blood seem laudable, and not so putrid as before; it's a sign that Nature doth repair and restore new good blood instead of the corrupt blood which hath been taken away. Contrarily, If the more is taken away, the worse it comes, its a sign the Disease grows worse, and that Putrefaction is encreased; whence there is reason to fear a stupefaction of the Internal Parts.

The Vein in the bending of the Arm, or the Basilica, or the Mediana, is for the most part to be opened, in the right Arm most commonly, sometimes in the left, viz. when more distention is felt under the short Ribs on the left, than on the right side. Yet sometimes a Vein is profitably opened in the Foot, if Revulsion be necessary and the Patient weak, the Matter of the Disease being in the Head, and the sick person molested with Head-ach, and want of rest.

Frictions are seldom used in putrid Feavers, unless it be in the Swooning Feavers; the Cure of which we shall set down in the Cure of the Symptomes of Putrid Feavers, towards the end of the next Chapter.

But Cupping-Glasses are more frequently used, as being the Substitutes of Blood-letting, in whose stead they serve, when Weakness or Age of the Patient will not permit a Vein to be opened.

Medicinal Remedies are comprehended under a double kind; whereof some are Evacuative, others Alterative. Under the Evacuative, we comprehend Purgatives, Vomitories, Sudoroficks, and Diureticks. Under the Alterative, we comprehend Coolers, Attenuaters, Cutters, Openers, and Strengtheners. Of all which we shal set down the Composition and use in order, according to the usual Method of Practice.

And that we may begin with Purgatives, its a great Question among Authors, Whether or no they ought to be used in the beginning of Feavers? Which Controversie, omitting all Circumlocutions, is thus determined. In respect of the Matter immediately producing a continual putrid Feaver, which is contained in the greater Veins, Purgation is not convenient in the beginning; unless the said Matter do heave and work, being so stirred by Nature, provoked by the ill quality thereof, and endeavoring to expel it, that thereby it becomes more disposed for expulsion, and there be danger by the foresaid working thereof, lest it rush into some noble part; howbeit this seldom happening, for the most part the Concoction thereof is to be expected, before we undertake to evacuate the same by Purging Medicines. But in respect of the Matter contained in the first Region, if it be very much, and do encrease the Feaver, oppress Nature, and divert her from concocting of that which is in the Veins; Purgatives may be given the next day after Blood-letting, but they must be gentle, such as evacuate only the first Region. Now that naughty Humors and Excrementitious do abound in the first Region, that is to say, in the Stomach, Guts, Mesentery, or about the Midrif, may be known by Stomach-sickness, Bitterness of the Mouth, Thirst, Pain of the Stomach, or some other part contained in the lower Belly, Loosness of the belly, and other Symptomes; in regard of which Purgation is sometimes to be practised before Blood-letting. Now the Medicines for this intent, must be Cassia, Manna, Tamarinds, *Catholicum*, *Electuarium lenitivum Diaprunum simplex*, *Syrupus Rosaceus*, *de Cichorio cum Rhabarbaro*; which may divers waies be compounded after this manner:

Take *Cassia newly drawn one ounce: Tamarinds half an ounce. With Sugar make it into a Bolus.* Or,

Take *Catholicum six drams: Elect. lenitive, or Diaprunes simple, half an ounce: Cream of Tartar one dram. Make all into a Bolus.* Or,

Take *Leaves of Endive, Cichory, Sorrel, of each half a handful: Tamarinds half an ounce: Boyl all to three ounces. In the strained Liquor dissolve Catholicum half an ounce: Manna and Syrup of Roses, of each an ounce. Mix all into a Potion.*

If you desire your Medicine a little stronger, you may ad a dram or four scruples of Rhubarb infused in Endive or Cichory Water with yellow Sanders. Yea, and sometimes if the Feaver be not very strong, two or three drams of Senna may be added to the Decoction.

Some reject Rhubarb, because it heats; also Manna, and Syrup of Roses, because being sweet, they are soon turned into Choller. But with cooling Waters or Decoctions Rhubarb being infused, or Manna and such like dissolved, can do no hurt; especially if to the said Decoctions, Tamarinds be added, which are much commended to this intent, or if the Pulp thereof be given dissolved in the Potion.

Some in Chollerick Feavers douse the Whey of Goats Milk, and that very pertinently; for it tempers the heat of the Feaver, evacuates Choller, and strengthens the Bowels. In a Cup of Whey they steep all night one dram, or one dram and an half of Rhubarb, or they add two or three ounces of Syrup of Roses, and so give it in the morning; and afterward they give the Patient a quart of Whey more to drink, that all the Whey may not be infected with the tast of the Medicament.

That kind of Purgation which is practised in the beginning of putrid Feavers, the Vulgar Physitians call Minorative purgation; and that which is practised when the morbifick matter is concocted, they call eradicative purgation: which is also convenient in the beginning (as was said) in the Judgment of *Hippocrates*, if the matter be turgent. Now this same turgescence, and boyling as it were of the matter is known hereby, because the Patient perceives in divers Parts light Pains which soon go away and shift suddenly from place to place; and hath divers collours of the Face and other Parts, so that somtimes there is a redness and then again a paleness in some Part of the Face. And in a word the Patient is exceedingly tormented with anxiety and unquietness, continually tumbling and tossing.

Howbeit that Rule of *Hippocrates* touching the use of Purgation, when the morbifick matter doth ferment and work in the Patients body, is not observed in ordinary Practice: but when the Humors appear in their fermentation and Motion, we do more safely apply our selves to Blood-letting; and by that means we do more readily present the rushing of the stirred Humors into any noble Part, which being agitated by the Purgation may more easily flow into the said Parts.

Somtime also in the beginning of these Feavers Vomit is to be procured, viz. when the Patient is much vexed with illness of stomach and with vomiting for then Nature endeavours to evacuate the morbifick matter upwards, and the Physitian ought to assist her endeavours. And many times it falls out, that great Quantity of matter is conteined in the stomach and Parts thereabout, which must be Evacuated as soon as possible may be, by Vomit; seeing no concoction can be expected of such excrementitious matter in so great a Quantity; and what ever the Patient eats or drinks is changed into such a like Humor and encreases the Matter which is cause of the Disease. For *Fernelius* hath well observed in his third Book of the Method of Healing, Chap. 3. that all superfluity of Humors in the stomach, spleen, Pancreas, Mesentery, and the Cavity of the liver, is conveniently emptied out by a Vomit, which somtimes wil not be removed with Medicines that work downwards, though divers times administred. And it comes often to pass, that the Matter being Vomited up, the Feaver is taken away at the first, which otherwise would have proved long, in case that matter had been transmitted into the more inner Parts of the body, and very wel mixed with the blood.

Now of the three degrees which we reckon of Vomitories, the mildest is to be Chosen, as Barley Water Luke-warm with Oyl of Almonds or common Oyl, or with a little Quantity of white Vinegar. Also Syrup of Vineger, or Oxymel simple which Chicken broath or a Decoction of Dil Seed, Raddish or Orach, whereunto also Oyl may be added. All which are to be given to the Quantity of a pint or more; for in a less Quantity they abide in the stomach. And seeing these weaker sorts of Vomits are of little efficacy, we may somtimes apply our selves to those of the middle Rank; which shall be propounded hereafter, in the Cure of a Tertian Ague

And not only in the beginning of the Disease before Blood-letting, but also in the whol Course thereof, Clysters must be given every day or every other day, if the Belly be not of it self very free, made of a Decoction of Emollient and refrigerating things, such as French Barley, Prunes, Mallowes, Violet Leaves, Mercury Leaves, Beares-Foot, Orach, Lettice, Endive, Houseleek, Water-Lillies: dissolving therein *Catholicum*, *Cassia*, Diaprunum simple, Red-Sugar, Honey of Violets, and Honey of Mercury; Oyl of Water-Lillies, Violets &c. But in a violent hot Feaver, it is better not to add the Oyls, because they are easily enflamed.

Observe in the first place, that not above three or four blades of Houseleek must go into one Clyster, because it cools most potently, and being taken in greater Quantity, may hurt the Guts.

Observe secondly, that in all Feavers of Choller, Clysters are not to be injected actually hot, but only Blood-warm.

In Feavers that spring from flegm, Decoctions for Clysters are made of the Emollient Herbs with Annis Seed, Seeds of Fennel and of Carthamus; flowers of Chamomel and Melilote; dissolving therein Hiera Picra, Diaphoenicum, Honey of Roses, Honey of Mercury, Oyl of Chamomel, Dil, or common Oyl.

And because, as we noted before, absolute and perfect Purgation, which they cal Eradicative, is not to be attempted till the Morbifick Cause be ripened and digested; the Physitian from the beginning of the Disease, after the first Blood-letting, and when the passages neerest the stomach are clensed, ought to use such Medicaments as prepare crude Humors for digestion and Evacuation, and withal temper the Feaverish Heat, hinder Putrefaction, and open obstructions; such as are Juleps, broaths, Emulsions and other things which shal be hereafter described.

Juleps are compounded in a Chollerick matter offending, of Syrups of Lemmons, Pomegranats, Sowr-Grapes, Vinegar simple, of the Juyce of Sorrel of Cichory simple, with Waters of Endive, Sorrel, Grass and Cichory.

Or better, of the Decoction of the Roots of Sorrel and Cichory, of the Leaves of Sorrel, Maiden-Hair,

Hair. Garden Endive, Dandelion, the four cool Seeds, Tamarinds, with the Syrups aforesaid.

And sometimes that we may cool more effectually, a dram of *Sal Prunella* is added, for every Dose of the Julep, or so much spirit of Vitriol or Sulphur, as shall suffice for a moderate sharpness.

Sowr things are never to be omitted in Feavers springing from Choller; because bitter things are sweetened by Sowr and acid things: which if they are Sowr in an high degree, as spirit of Vitriol and of Sulphur, they deface the bitterness even of Aloes and Coloquintida. Now yellow Choller being plundred of its bitterness, is dead. And Harmles.

Juleps also of great Virtue, may be made of Juyces and which are very grateful to the tast, after this manner.

Take *Juyce of Apples that smel sweet, newly drawn out and setled four ounces: Juyce of Lemmons three ounces: Rose-Water two ounces: Juyce of Pomegranats one ounce: fineſt Sugar half a pound: Make of al a clear Julep for three Doses.*

If very thin Choller and sharp be in motion and cause either a Looseness or some other greivous fluxion; Juleps must be compounded which thicken, of Waters of Lettice, Purslain, Plantan, flowers of Water Lilly, Red Poppy and Violets with the Syrups aforesaid.

Yet we must observe that Syrup of Violets and other of the sweeter sort of Syrups, are not to be given alone; both because they loosen the stomach; as also because, ere they can Pass into the Veins, they are turned into an hot Vapor, which doth afterwards cause thirst to encrease. And therefore there must evermore some Quantity of sharp Syrup be mixed with the sweet Syrups aforesaid, that they may more easily peirce into the Veins, and the better resist the Heat of the Feaver.

In the Progress of the Feaver, when Coction begins to appear, to the foresaid Decoctions must be added Roots of Asparagus and Liquoris; Leaves of Agrimony, Pimpernel, Liverwort and Maiden-Hair.

In Flegmatick and Cronick Feavers, things more cutting, attenuating and opening are prescribed beginning with the more weak, such as are Syrup of Vineger, of Maiden-Hair, Syrupus Bizantinus, with a Decoction of Egrimony, Maiden-Hair, Betony, Liquoris, Raisens. And in the progress of the Feaver unto the former we add Syrup of the opening Roots, Vineger compound, of Hyssop, Oxymel simple, and compound. And to the Decoction we add the five opening Roots, Leaves of Hyssop, Carduus benedictus and (if the matter be very impact, Clammy and roapy) of Germander and Centory. Whereunto if Salt of Tartar and spirit of Vitriol be added, they work more happily.

In Feavers springing from Melancholy, such things are added which do moisten, as Syrup of Violets, of bugloss, of Borrage and Apples, towards the Beginning: and afterwards Fumitory, of Epithymum, of the five opening Roots, Oxymel of Squils; with a Decoction, first of Bugloss, Borrage, Cetrach or wall-fern, Maiden Hair, Fumitory, Hops; and afterward Dodder, Scordium, Centory, Bark of Capers, of the Ash-tree and of Tamarisk.

And finally in bastard Feavers, which arise from the mixture of different evil Humors, the Medicines aforesaid must be mixed together; yet so that such as respect the most predominant Humor be put in the greatest Quantity.

For the more nice and dainty sort of Patients, Medicinal broaths are prescribed instead of Juleps: and also that the sick may not grow weary of the same kind of Medicine too long used; and these broths are made of such of the Roots and Herbs aforesaid as are most pleasant to the tast with a chick, or part of an Hen or Capon: unto which somtimes may be added one dram of *Sal Prunella*, or some drops of spirit of Vitriol, when we would have it more cooling than ordinary.

Howbeit in slow and long lasting Feavers, caused by rebellious obstructions hard to be cleared, Germander though bitter and Cichory, Endive and Dandelyon, though bitter, may be boyled in Broaths; and *Montanus* in his Counsels, doth cry up Cichory and Germander boyled in Broaths as an admirable Remedy for such as have a long Feaver with obstructions.

In Feavers from flegm a Decoction of Chamomel is excellent. *Zacutus Lusitanus.* Observat. 26. in the third Book of his *Praxis admiranda.*

Also emulsions or Almond-Milks are very good in putrid Feavers, and are commonly more pleasing than Juleps. They are most in use when the Feaver is Joyned with a dry distemper of the Bowels, or a thin Catarrh, or an Inflamation of the Lungs and Parts serving to breath withal; or for variety, least the Patient should be over tired with continual use of Juleps. Now the Composition of these emulsions, hath been described in the foregoing cures.

Cold Water given in great Quantity in continual putrid Feavers, was wont to be in use among the antients, and is commended by very many latter Physitians. But as we said the use hereof was dangerous in the simple *Synochus*; so in this Case, we think the discreet Physitian shal do best to forbear the same, for the reasons we delivered, in our Chapter of the simple *Synochus.*

Yet will it be somtimes good, in extream heat of a Feaver to give a good draught of cold Water,

to ten or twelve ounces with a few drops of Spirit of Vitriol: For hereby sometimes the same effects are wrought, which *Galen* attributes to cold Water being drunk, the quantity of three or four pints at a time; When as notwithstanding there are none of those dangers to be feared, which *Galen* himself confesseth did sometimes happen upon the preposterous drinking down of so great a quantity of cold Water as he adviseth. For the Spirit of Vitriol causeth that the Water breeds no Obstructions, but rather opens the same, quickly piercing and passing through the Bowels, not biding in the Hypochondria's as plain and single cold Water is wont to do; but is very like the acid Mineral Fountains and Wells, which though they are drunk in great quantity, do not lie heavy in the parts about the short Ribs, but are quickly pissed forth, and very good against Obstructions.

To strengthen Nature, which in every violent Feaver is much dejected, Electuaries are good, and strengthening Conserves and Preserves, compounded of Conserve of Roots of Bugloss, Leaves of Sorrel, Wood-sorrel, Stalks of Lettice, Flowers of Bugloss, Borrage, Violet, Cichory, and Roses, Pulp of Citrons. Whereunto are added the Pouders of Coral, Pearls, Ivory, Harts-horn, *Diamargaritum frigidum*, *Diatriasantalon*, *Diarrhodon Abbatis*, *Confectio Alkermes*, & *de Hyacintho*; which are commonly after this manner compounded:

Take *Conserve of Flowers of Borrage, Bugloss, Roses, of each an ounce: Confectio Alkermes one dram and an half: Pouder of Diamargaritum frigidum, Ivory, Coral prepared, and Pearls prepared, of each ten grains: Sugar of Roses, the weight of all the rest: three Leaves of beaten Gold. Make of all an Electuary covered over with Gold, of which let the Patients take often by it self out of a spoon, drinking a little of their ordinary Drink after it, or mingle some of it with their ordinary Drink, and with their Broths.*

Take *Conserve of Cichory, Sorrel, Lettice, and of the sharp Pulp of a Citron, of each half an ounce: Pouder of yellow Sanders, and of Pearls prepared, of each one scruple: Spirit of Vitriol half a scruple. With Syrup of Violets make all into an Electuary.*

Take *Conserve of the Flowers of Bugloss, Roses, and Violets, of each one ounce: Waters of Endive, Sorrel, and Borrage, of each three ounces. Mix them together, let them stand over the warm Embers and heat; then strain the Liquor through a searse; then add Confectio Alkermes two drams: Pouder of the Electuary Diamargaritum frigidum half a dram: Coral prepared, Pearls prepared, and Shavings of Ivory, of each one scruple: Syrup of Lemmons and Pomegranates, of each three ounces. Mix all; give one spoonful at a time.*

For the more dainty and nice sort of People, in great debility of Natural strength, this following Julep very pleasant to the taste may be compounded:

Take *Waters of Sorrel, Orange flower, and Roses, of each one ounce and an half: Syrup of Lemmons and Pomegranates, of each one ounce: Confectio Alkermes one dram: mix them. Let the Patient take hereof frequently in a spoon.*

Altering Medicines having been used for some daies together, and such as prepare bad Humors, when the Feaver begins to decline, we must set our selves to purge out the said Humors, when the signs of Concoction do appear, avoiding the Critical daies. And this must be done with Medicines a little stronger than those which were given at the beginning; of which sort are, Senna, Rhubarb, Agarick, Catholicum duplex, and such like; whose Matter and Dose must by the skilful Physitian be accommodated to the Humors offending, and the Nature of the Patient. And some Physitians are so bold as to proceed to Scammoniate Medicaments, as *Diaprunum solutivum*, *Diaphœnicon*, *Electuarium de succo*, *Rosarum* & *Diacarthamum*. Which notwithstanding are very seldom to be used in continual Feavers, because Scammony is wont very much to inflame the Humors, and to cause vehement thirst; and that especially in burning Feavers, in which Scammoniate Medicaments are very hurtful. Yea verily, and Rhubarb it self, although a gentle and most excellent Medicament, is by some suspected as not safe in very Chollerick Feavers, because of its notable heating and drying faculty. Howbeit the hurtful faculty thereof may in great part be corrected, by infusing the same in Cooling Waters, and by mingling therewith a Decoction of Tamarinds and cooling Herbs; and by adding thereto Cassia, Syrup of Roses, Syrup of Cichory with Rhubarb, and such like.

If the Feaver do stil continue, Purgation must be ever and anon repeated, using between whiles preparatives & digestives, til the whol seminary of evil humors be taken away. For otherwise, if we cease Purging before the Feaver be perfectly abated and gone; the Patient will be in danger of a Relapse. Yet this Rule needs some restriction. For if after many Purgations, a lingring feaver continues, which doth by little and little pine the Patients, and seem to cast them into a Consumption; it will be the best course to leave Purging, and seek to conquer the Feaver only by Alteratives and Diet. For it sometimes falls out, when there is some evil disposition of the Bowels, causing a protraction of the Feaver, that so long as Medicaments are given, so long the Disease continues, because that Nature is weakened. Which afterwards (Purgation being omitted) gathers strength, concocts the Cause of the Disease, and being concocted, expels the same.

But

But if a lingring Feaver ariſe from Obſtructions, as is often ſeen in Children, frequent and very gentle Purging, which draws away the Humors by little and little, is wont to remove the Diſeaſe; eſpecially if the Purgation be compounded with Rhubarb, which both opens obſtructions, and ſtrengthens the bowels. The Commendations whereof celebrated by *Montanus* in his tenth Counſel of Feavers, is worthy to be ſet down in this place. He ſetting down the Cure of a Boy that had a lingring Feaver ariſing from Obſtructions: *Among other things, I ſhall commend* (ſaith he) *one which I have by long Experience found never to fail, viz. That he take every day the Infuſion of Rhubarb in Endive Water. For I never knew Feaver from Obſtructions, which was not cured by this Medicament, provided it were conſtantly taken without wearineſs, or giving over. For I have ſomtimes ſeen moſt groſs Humors impacted into the narrow paſſages of the Body, and ſuch Obſtructions, as by reaſon of the weakneſs of Natural heat could hardly be removed, cured by Rhubarb. My Courſe therefore hath been to take one pint of Endive Water, and therein to infuſe a dram of Rhubarb tied in a thin piece of Linnen. Of which Infuſion, having lightly preſſed out the Rhubarb, I give four ounces in the morning; and this is the Doſe for Children. Neither do I ceaſe giging this Medicament, until I ſee the Feaver and Obſtructions wholly gone. For they will doubtleſs be cured, if all other things be rightly ordered, and ſuitable to the Cure.* So far *Montanus*. But we are wont ordinarily to uſe a Diet Drink made with Rhubarb, which to ſuch Children as are troubled with a lingring Feaver and Obſtructions, I am wont to give for their ordinary Drink with good ſucceſs. It is thus made: Half a dram or a dram of Rhubarb (according as the Child can endure the taſt thereof) groſly poudered and tied in a Rag, is infuſed in two or three pints of ſmal Beer or Ale an whol day, cold: Of this the Child drinks for a month together, or longer if the ſtubbornneſs of the Diſeaſe require the ſame. Whereunto, if the Feaver be very remiſs, and the Child flegmatick, a little Wine, or ſtronger Beer or Ale may ſomtimes be added, to qualifie the unpleaſing taſt of the Rhubarb.

After Purgation of the Morbifick Matter, Nature is for the moſt part accuſtomed in the declination of the Diſeaſe, to purge away the reliques of the Matter offending by Urine, which we may diſcern, becauſe the Urines are then more thick, or more plentiful than ordinary; which endeavor of Nature muſt be aſſiſted by Diuretick Medicaments which are moſt temperate, ſuch as are Emulſions, and the Openers formerly ſet down in Juleps or Broths; whereunto, if the Feaver be very gentle, ſome Roots of Fennel and Parſley, or Leaves of Wormwood, may be added, and that eſpecially in Feavers of Flegm, and continual Quotidians.

But if Nature do expel the Reliques of the Morbifick Matter to the habit of the Body, Sudoroſicks are to be uſed; not thoſe hot ones, which are more properly called Sudoroſicks; but others more temperate, which are the ſame in a manner with the Diuretick, and being of an attenuating faculty, do diſpoſe the Humors in ſuch ſort, as Nature may more eaſily expel them by what place or way ſoever ſhe is moſt enclined. Howbeit, to theſe may be added, Carduus Water, Spirit of Vitriol, and other things which ſhall be more fully deſcribed, when we ſhall treat of Malignant Feavers.

Beſides inward Medicaments, divers things are alſo outwardly applied, to temperate the Feaveriſh heat, to confirm the ſtrength of the principal parts, or to open the Pores of the Skin, and draw out the ſmoaky Vapors, and Feaveriſh Heat: viz. Epithems, Liniments, and other things to be applied unto the Region of the Heart, Liver, and other parts. Which are invented to mitigate the Heat, and are not to be applied ſave in the ſtate or declination of the Diſeaſe, when the Heat diffuſeth it ſelf to the exterior parts; not in the beginning or augment, while it reſides yet about the bowels; nor yet when the Criſis is at hand.

An Epithem to be applied to the Region of the Heart may be thus compounded.

Take *the Waters of Bugloſs, Sorrel, Water-lillies, Roſes, of each three ounces: Vinegar of Roſes, or juyce of Lemmons one ounce: the Pouders of Diamargaritum frigidum, and Triaſantalon, of each one dram: Camphire and Saffron, of each five grains: mix all. Make hereof an Epithem to applied warm with Scarlet Cloth.*

For the more ſtrengthening, and to make it ſmel the ſweeter, ad three ounces of Orange flower Water, and one dram of Confectio Alkermes.

Where we deſire yet more potently to ſtrengthen, ſolid Epithems are applied unto the Heart, made after this, or the like manner:

Take *Conſerves of Bugloſs and Roſes, of each one ounce: Confectio Alkermes two drams: Pouder of Diamargaritum frigidum one dram and an half. With Juyce of Lemmons, or Roſe Water, make a ſolid Epithem, to be applied after the liquid one aforeſaid.*

Or one yet more Cordial, may in form of a Liniment, be thus made:

Take *Confectio Alkermes, and de Hyacintho, of each three drams: Pouder of Triaſantalon, and Diamargaritum frigidum, of each two drams. With Water of Roſes make all into the form of a Liniment or Oyntment, wherewith ſmear the Region of the Heart.*

Alſo

Also to strengthen to and drive out the Sooty Vapours and the Feaverish heat, young Pidgeons are very good, being split throughthe Back bone, and applied to the Region of the Heart, which likewise are oftentimes sprinkled with cordial Pouders as Diamargaritum frigidum and Triasantalon. Or before they be applied, the Region of the Heart is smeared with *Confectio Alkermes* and the cordial Liniment aforelaid.

Also to the Liver, Epithems are wont to be applied, which are made commonly after this manner.

Take *Waters of endive, Cichory, Sorrel and Roses of each three ounces: Lettice Water two ounces: Vinegar of Roses half an ounce: Pouder of the Electuary Triasantalon one dram and an half: Spodium half a dram: Camphire ten grains: Make of all an Epithem.*

For to cool more powerfully, an Epithem may sometimes be made of Juyces, after this manner.

Take *Juyce of Cichory and Endive of each half a pound, Juyce of Lettice and Vinegar of Roses of each two ounces: Pouder Triasantalon two drams: Mix all and make thereof an Epithem.*

Now it is very profitable to apply cooling Epithems not only to the Liver, but to the whol Region of the Hypochondriaes; for they do not only further Coction, but also help the distemper of the bowels; and hinder the principal Parts from a deadly Consumption.

The Region of the Liver may likewise be anointed with this following Oyntment, which also may be applied to the Reins and Loins.

Take *Oyntment of Roses one ounce and an half: Ceratum Santalinum one ounce: Juyce of Endive one ounce and an half: Oyl of Roses and Wax, as much as shall suffice, to make a Liniment. Whereunto add a little Vinegar of Roses, at the time of anointing.*

Also cooling things are profitably applied to the stones because of the great consent between them and the principal parts of the body; they therfore being cooled, the heat of the whol body is in great measure extinguished. To which purpose such an Epithem as this following may be made.

Take *Waters of waterlilly, Plantain, Roses, and Cichory of each three ounces. Vineger of Roses one ounce and half. White wine two ounces. Mix all and dip a cloath therein cold, and warp the same about the Stones.*

Also the cooling of the hands and feet doth great good, because of the Consent they have with the whol body, by reason of the Arteries Veins and Nerves, which end in those parts.

Neither need we fear least it should hinder the voidance of excrements by the pores, because they are few that come that way; so that there comes more good than hurt by the cooling of those parts.

The Patients may therefore hold in their hands balls of marble, Ivory, Brass or Lead. Or they may hold their hands in cold Water, with a little Wine and Vineger mingled therewith. To the soales of their Feet may be applied the Leaves of Lettice, of Water Lilly, wet in Water and Vineger. Or to wash both, Hands and Feet, the following Decoction may be provided.

Take Leaves of Lettice, Violets, House-Leek, Purslain; Vine Leaves, and Willow-Leaves of each one handful. Heads or Leaves of Poppy (if the Patient rest not) an handful: Vineger one ounce: white Wine two ounces: Fountain Water as much as shal suffice. Make of al a Decoction. Hereunto may be added, if you please, a little Quantity of Lie, for to strengthen the Joynts. Herewith let the Hands and Arms, the Legs and Thighs of the Patient be washed warm, twice in a day, or once at bed time.

We are furthermore to note, that the Antients frequently used baths of fresh Water to cure putrid Feavers, as we may see in *Galen* in his Book *de Marcore. Cap.* 7. and in the 11. of his Method Chap. 9. and 20. and in his 1. to *Glauco* Chap. 9. and those baths were either cold in a vehement Feaver such as is an exquisite burning Feaver; or Blood warm in the declination of Feavers when the signs of Concoction appeared. But in this Age of ours, these kind of baths cannot be used, without danger, and they are convenient only in one Case; viz. when the Feavers become very lasting and possessing a body hot and dry and lean, seems likely to turn to an Hectick.

And one thing yet more I shal ad for a Conclusion of all, that if the Feaver terminate with some Crisis, the reliques of the Morbifick matter, must be taken away with a Purge; especially if the Crisis were by way of Sweat or bleeding. For by those Evacuations only the thinner portion of the matter is voided forth, but the thicker being left behind, as afresh inflamed and brings the Patient into a Relaps. Only therefore that Critical Evacuation which is wont to proceed by way of Stool, is secure from a Relaps. Yet must we not so confide therein as to abstain usually from al Purgation. For the Parts about the Midriff are yet foul, and do corrupt the nutriment which comes into those Quarters, from whence proceeds either a relapse into the former, or some new Disease. Therefore it is for the best way (as some latter Physitians have observed) by repeating once and again a gentle Purge, so to clense away al the remainders of the morbifick Cause, that all fear of a Relapse and al occation of another Disease may be taken away.

Chap.

Chap. 2. *Of the Symptomes which accompany Putrid Feavers.*

ALL Authours in a manner who have writ of Feavers, have described those Symptoms which either accompany or follow upon them, with their Cures at the end of their work, that so they might be best accommodated to al kinds of Feavers. Which Counsel of theirs though I shal not disallow, yet I have thought it much more commodious for the service of Practitioners, to Joyn them immediately after the Doctrin of putrid Feavers, seeing in those kind of Feavers they are wont to be most vehement and frequent, and require peculiar Remedies.

So that although very many Symptoms are wont to be Cured by the Remedies aforesaid, accommodated to the Cause and the Disease: yet very many there are more offensive than the Disease it self, which are here breifly to be discribed.

Head-ach, Want of Sleep and Ravings, are Cured in a manner with the self same remedies viz. Revellers, repellers, derivers, resolvers and anodines. Revellers are emollient Clysters and such as are Laxative, Gentle Purgations, Blood-letting, Cupping-Glasses, and washing the Feet. Repellers are frontals, Vinegars, Roses, Unguents. Or Liniments; Derivers are opening of the forehead Vein, and Vesicatories. Resolvers are certain Oyls, and certain Live Creatures applied to the Head, which likewise are Anodines. And while the foresaid Remedies are used, Juleps are given and Emulsions, to temper and qualifie hot and sharp Humors. After all these come narcotick Medicines, which are not to be used, but upon extream necessity when other things wil do no good. The matter of al which Medicaments, is set down in our Chapters of the Phrensy and Head-ach proceeding from an hot Cause. But in the administration of the said Medicaments, one thing must be diligently noted, that they be not to be used, when the Crisis of the Feaver is near: for they would then disturb the motion of Nature and hinder the Crisis. Which is to be understood as of al the rest, so more especially of the narcoticks.

Against want of sleep and Ravings, a Cataplasm laid to the Soals of the Feet wil be very good, being made of fresh gourds beaten, the Leaves of the larger HouseLeek, of Lettice and such like. As also to wash the Feet with a Decoction of refrigerating Herbs. For by this means the Coldness is communicated through the Nerves unto the Brain.

Convulsions in Feavers, especially Malignant ones, do somtimes happen, by reason of Malignant Vapors which vex and fret the Skins which cover the Brain called Meninges. Against which convulsion fits we must use revelling Clysters and Cupping-Glasses; also often give in Juleps or broaths Epileptick Pouders and finally anoint the Patients back-bone with Oyl of Chamomel, Violets, Sweet Almonds and of the Indian Nut.

When profound sleep happens to such as are in Feavers the same Remedies are given which have been described in the Cure of sleepy Diseases, only observing this one thing; that we give no very hot Medicine inward.

The thirst of Persons Feaverish is cheifly allaied with refrigerating and moistening drinks. But if thirst be so Violent that moderate drinking cannot asswage it (and to drink over much doth much hurt and oft times endangers the Patients Life) we must by other means deceive and asswage the same.

First therefore, let the Patients draw in the cold Air, and abide in Silence not speaking a word, let them keep their mouths close and breath through their Nostrils, and give themselves to sleep.

Let them wash their mouths with Barley Water Blood-warm, or with Water wherein hath been boyled Jujubees, Sebestens, Prunes, Lettice, Purslain and such like.

Let them hold in their Mouths a peice of Liquoris Scraped and steeped in Vineger and Water, or let them wash their Mouths with Barley Water either simple or with a little Vineger in it, or a little Juyce of Lemons, Pomegranats, or a little spirit of Vitriol.

Or let them hold in their mouths the Kernels of Pomegranats, or a Slice of a Citron, or a Lemmon, or an Orange, Steeped in Rose-Water with Sugar; or Stalks of Lettice, Endive, or Purslain; Leaves of Sorrel, Bits of a Gourd, Cowcumber or Melon first Steeped in cold Water; Or Acid Cherries, or red Currence, or Rel-berries, or Tamarinds, or a peice of Chrystal, or the Stones of sharp Prunes upon which a little of the Pap Hangs, and such like.

Also Sugar Dissolved in Rose-Water with a little spirit of Vitriol, and dried again, is very good to quench thirst.

If thirst cannot be taken away with these lighter things, they must be permitted to drink, not in the beginnings of the Exacerbations, or fits nor in the Augment, but very spareingly, but in the Vigor and especially when it is towards declining: for then large allowance of drink doth carry the heat outwards,

wards, and sometimes moves sweat; especially in the fits of Agues, in the declination of which, it is many times good for the Patient to drink unto satiety. Several Materials convenient to make Drinks in these kind of Feavers, are set down in the foregoing Chapter.

But if thirst be caused by a Cholleric Humor contained in the Stomach, the said Humor must be voided by Vomit or Stool. Vomit may be procured, if the Patient be Stomach-sick, with an ounce and an half of Syrup of Vinegar Simple, with five ounces of Barley Water, or of the Decoction of Rhadishes. If that will not do, purge the Patient with a Bolus of one ounce of the pulp of Cassia, and three drams of the pulp of Tamarinds, or with two ounces of Manna, dissolved in a Decoction of Prunes or Tamarinds; or the following Potion may be given.

Take *Cassia new drawn six drams: Mucilage of the seeds of Flea-bane half an ounce: the Decoction of Barley, Prunes, and Tamarinds, four ounces: Syrup of Roses one ounce. Mix all into a Potion.*

The Heat, Dryness, and Roughness of the Tongue and Throat, is cured by divers Remedies, applied to those parts, and contained in the mouth, compounded after this manner:

Take *of the Mucilage of Quince seeds one ounce: the seeds of Mallows half an ounce: Pouder of Diatragacanthum frigidum, and Sugar Candy, of each one dram: white Sugar, as much as shall suffice. Make of all a Loboch.* Or,

Take *of the Mucilage of Fleabane seeds, or Quince seeds extracted with Rose Water, or Lettice Water half an ounce: Syrup of Violets, Lemmons, or Pomegranates, an ounce and an half: mix them. Let the Patients take now and then a little, and hold it in their mouths.* Or,

Take *Cucumer seeds half an ounce: Quince seeds two drams: Gum Tragacanth one dram and an half: Beat the seeds and dissolve the Gums in the white of an Egg. Mix all, and make thereof little Cakes, for the Patients to hold in their mouths.* Or,

Take *Seeds of Fleabane, and of Quinces, of each one dram and an half: Gum Tragacanth half a dram: Sugar Candy three drams. With Mucilage of Gum Tragacanth make all into little Cakes. Or with a thin Rag make Nodules, which shall be steeped in Rose Water, and held in the Patients Mouth.*

If the roughness be very hard to remove, make a Gargarism of the Decoction of Barley, Roots of Marsh-mallows, Leaves of Lettice, Purslain, Violet flowers, adding thereto Honey of Roses, Syrup of Violets, or Sugar Candy, or Oxymel simple, and such like.

If filth cleaves to the Tongue, as it most times happens, it must be oftentimes wiped with a rough Cloth dipped in a mixture of Water and Vinegar. Whereunto also sometimes may be added, the Juyce of Housleek, and Sal prunella.

If the Heat be more vehement, with great blackness of the Tongue, more refrigerating Medicines must be mixt with the moistening ones, after this manner:

Take *Juyce of Lettice, Housleek, and Lemmons, of each an ounce: Mucilage of Quince seeds and Sugar Candy, of each half an ounce: white Sugar as much as shall suffice. Make all into a Loboch.* Or,

Take *Green Housleek one handful: Vinegar of Roses three ounces: Barley Water one pint: Boyl all till the third part be wasted away. In the strained Liquor dissolve of Sal prunella one dram and an half: Allum a scruple: Syrup of Violets and Mulberries, of each one ounce: Make of all a Gargarism. Or Sal prunella alone may be dissolved in Housleek Water, and the Tongue and Throat washed therewith, which is very good; also some Portion thereof may be swallowed to cool the mouth of the Stomach, when it is likewise inflamed.*

Also outwardly, let the Neck and Throat be anointed with Oyl of Violets, and fresh butter, washed in Rose Water, with which the Throat being as it were scorched and parched, may be moistened.

For Cooling, the Oyntment of Roses, and *Galens* cooling Oyntment may be used, with others of like Nature. But the Leaves of Lettice and Purslain being bruised and enclosed between two Linnen Cloths, and so applied to the Neck and Throat, are much more effectual. Also those kind of Bugs which we call Sows, may be bruised and laid on in the same manner.

In great Heat of the Breast, such as is wont to happen in Feavers, the whol Breast must be anointed with Oyl of Violets, Water-lillies, and of sweet Almonds. Yea, and if the Heat be very vehement, Fomentations ought to be applied to the said part made of a Decoction of French barley, Lettice, Water-Lillies, Borrage, Violets, and such like; after which, irrigations ought to be used of the Oyls aforesaid. Seeing that, according to the Prescript of *Galen* and *Avicenna*, in such like Feavers, great care is to be had of the breast, as of the Furnace of Heat. Now these kind of Remedies, according to the Rule of *Trallianus*, are seldom to be cold, because they drive the Heat inward; nor luke-warm, because they relax; but such things ought to be applied to the breast, as are actually hot, and potentially cold.

Pain

Pain in the Loyns is cauſed in Feavers by hot and plentiful blood boyling and working in the *Vena Cava*, and it muſt be eaſed by Emollient Clyſters and Cooling, and Emulſions made of the Cold Seeds, adding Sal Prunella; and by anointing the Loyns with *Galens* Cooling Oyntment, with Juyce of the larger Houſleek, and Camphire, or *Unguentum Populeon*, or Oyl of Roſes, Lillies, and Poppies; or with an Epithem made of Plantane Water, Roſe Water, Vinegar of Roſes, and Camphire; or with a Mixture of Roſe Water, Oyl of Roſes, and Vinegar: all which are to be applied actually cold in the Summer, and a little leſs than blood-warm at other Seaſons of the Yeer.

Diſquietneſs, and tumblings, and toſſings, which are wont to happen in the Feaver *Aſſodes*, and in the Fits of a Tertian Ague, are beſt cured by purging away the Chollerick Humor which vexes and frets upon the Stomach, and other ſenſible parts, and that by Vomit or Stool, according as Nature ſeems more or leſs to affect the one or other way; alſo it may be drawn downwards by Clyſters, and preſently all Art is to be uſed to make the Patient reſt, and cold Drink is given, as alſo cooling Juleps, whereunto ſometimes Syrup of Poppies, or a little Laudanum may profitably be added.

Swooning Fits are wont to happen in thoſe kind of Feavers which are commonly called *Febres Syncopales*, or Swooning Feavers, of which there are two kinds, as was ſaid before; and the one is called *Minuta*, the other *Humoroſa*. The Cure of which Feavers, much differing from the Cure of other Putrid Feavers, we have reſerved unto this place, in regard of the ſaid Symptome of Swooning.

The *Minuta Syncopalis*, which is bred of Chollerick Humors, ſharp and venemous, muſt be cured after this manner. Let the Air be cold and moiſt, and a little aſtringent, that diſſipation of the ſubſtance of the Body, may be thereby prevented. Let the Patients Diet be thin, cooling, and reſtorative, of the Broth of Chickens boyled with Sorrel, Purſlain, &c. To which may be added, Roſe-water, Juyce of Pomegranates, and a little Sugar. Bread ſteeped in the Juyce of Pomegranates, or of Oranges may be given, if a more liberal Diet is to be granted, as alſo Cream of Barley, or Panada's with Juyce of Lemmons or Pomegranates. Alſo Reſtorative Broths of preſſed Fleſh with the foreſaid Juyces. To the ſtronger ſort are given the Yolks of Eggs with Juyce of ſowr Grapes, the Stones of Cocks, the Fleſh of Pullets, Hens, Partridges, qualified with the aforeſaid Juyces.

Let the Patients drink with their Meat, if they have no Inflamation of any bowel, thin Wine not very old, nor yet new and windy; or Beer that is indifferent ſtrong, not new, or very ſtale. When they eat not, or otherwiſe if there be Inflamation, let their Drink be Barley Water, or Water in which a piece of a Loaf hath been boyled, with Syrup of Pomegranates, Lemmons, Citrons, Julep of Roſes, &c.

Sleep is good out of the Paroxyſm, but in the ſame it hurts. And finally, ſpecial Care muſt be taken that nothing provoke the Patient to Anger, Sadneſs, and the like Paſſions.

In the Paroxyſm, Reſolution of the Spirits muſt be prevented by blowing cool Air with Fans upon the Patients, and by ſprinkling them with ſweet ſmelling Waters. Their Face muſt be ſprinkled with cold Water, or Water of Roſes, and Vinegar minled. With which the Stones of Men, and the Dugs of Women muſt be bathed cold.

If Heat and Spirits will not be revoked from the Heart to the outward Parts of the Body, it is to be revelled and forced back by binding of the extream Parts, and by nipping and pinching them; alſo pluck the Patients often by the Noſe, pluck them by their Hair, and call upon them often by their Chriſten Name. Give of the Crum of White-bread ſteeped in the Juyce of Pomegranates, or thin fragrant Wine, tempered with Roſe-Water; and when neceſſity urges, ſome Cinnamon Water mingled with Roſe Water. In the mean ſpace, Reſtorative Broths are not to be omitted, wherewith Confectio Alkermes, and ſuch like may be mingled. Alſo Cordial Potions are often to be given out of a Spoon, made after this manner:

Take *Water of Roſes two ounces: Orange flower Water one ounce: Cinnamon Water half an ounce: Confectio Alkermes one dram: Pearls prepared, and Coral prepared, of each half a ſcruple: Sugar Cakes made with Pearl ſix drams: Mix all, and make thereof a Julep, or Cordial Potion. To theſe may be added the Electuaries, and Conſerves, and Preſerves, deſcribed in the foregoing Chapter.*

Alſo the inner ſide of a Loaf hot out of the Oven ſprinkled with Roſe water and Vinegar, may be applied to the Patients Noſtrils, and Mouth.

To the Heart, Cooling and ſtrengthening Epithems may be applied.

To ſtraiten the Pores, and prevent the Evaporation of the Patients ſtrength and Spirits, wrap them in Linnen ſprinkled with Pouder of Roſes, Balauſtians, and Sanders; or let their ſhifts be ſprinkled with Roſe water, and a little Vinegar.

Let their whol Body, eſpecially the Back be anointed with this following Liniment.

Take *Oyl made of unripe Olives, one ounce and an half: Mirtles, Quinces, and Mucilage of*

Seeds of Flea-bane, of each six drams: Gum Arabick dissolved in Rose-Water two drams, white Wax as much as shal suffice make all into a Liniment.

A special regard is to be had of the stomach, because the Humor offending is cheifly there collected. Now the region thereof must be anointed with Oyl of Roses and Quinces: and then also may be laid on a Toast of Bread, wet in Juyce of Quinces and unripe Pomegranats. Or if it be afflicted with great heat, foment the stomach blood-warm, with a Decoction of Purslain and Roses, or with Juyce of Night-shade, Purslain, Sowr-Grapes adding thereto Oyl of Roses and Quinces.

The Swooning Fits being removed and the Patient strengthened, we must bend our minds to remove the Feaver and its Cause. Which may be done, by Alteratives and Evacuators proper for turning Feavers, which we have described in their proper place: viz. Where the Cure of burning Feavers is set down.

The Cure of the second sort of Swooning Feavers, which is called *Febris Syncopalis Humorosa*, which is caused by abundance of Flegmatick aud crude Humors, is in a manner contrary to the Cure of the *Minuta* newly described. For the Air ought to be temperate, inclining to heat, light, pure and dry. Meats, of good Juyce easily digested, prepared with Hyssop, Fennel and such like Herbs. Let their drink be thin and not very strong. Let their sleep and Watchings be Moderate.

But Frictions or artificial Rubbings of the Body, and by *Galen* much extolled in this Case. In the 12. Method Cap. 3. They must be used from the beginning of the Disease, with Course Cloaths, beginning above and so Rubbing downwards; first on the Thighs and Legs; afterwards on the Arms, shoulders and Back. Let the Cloaths with which the Frictions are performed be first Smoaked with Storax, *Lignum Aloes*, Frank-Incense Cloves &c. When after friction the Limbs are lustily warm, anoint them with Oyl of Dil, of Chamomel, of Orice, of Castus and others of a resolving Faculty. Such Frictions as these are highly commended, because they call the natural Heat and spirits together with the Humor offending which did Choak the natural strength, into the outward Parts.

In the fit the Sick-party must be rowzed, by pulling the Nose, Rubbing the Eares, plucking off of Hairs, Loud calling &c. Also sweet Smelling things must be Applied to the Mouth and Nostrils, as Cinnamon and Orange flower Water, Vinegar wherein Cloves have been steeped, inside of a white Loaf dipt in *Hippocras* alone, or Cinnamon Water, or the following cordial Water.

Take *Waters of Bawm, Rose-Mary and Orange flowers of each one ounce; Cinnamon Water half an Ounce*: Confectio Alkermes *one dram*: *Syrup of preserved Citron Peels and of Gilly-flowers of each one ounce*: *Mix all into a potion or Julep, which the Patient must often take of, by a Spoonful at a time. Also Electuaries may be made after this manner.*

Take *Conserve of flowers of Bugloss, Rosemary, and of Citron Peels preserved, of each half an ounce*: *preserved Nutmeg three drams*: Confectio Alkermes *two drams*: *Species of Diambra and Diamoschum dulce of each one scruple*: *With the Syrup of preserved Citron Peels, make all into an Electuary.*

Unto the Heart Epithems may be applied and young Pidgeons to the stomach and Stones; Fomentations may be applied, and other things administred, which have been propounded in case of decay of strength.

While these things are in doing, frictions must ever and anon be repeated, which must in this Disease never be omitted.

When the Patient hath a little gathered strength, the Morbifick Matter is to be drawn out by Clysters and Purgations (in which *Hiera cum Agarico*, in regard of the stomach, is very profitable) which ought to be gentle and frequent, yet so as fitting Preparatives be administred between Purge and Purge.

Want of Appetite is common in a Manner to al Feavers: for when the stomach is inflamed, thirst is encreased, but Appetite of eating diminished. Yet somtimes Appetite is so dejected that the Patients can hardly sup a little broath. Which Loathing of Meat is caused by Vicious Humors collected in the stomach or soaked into the coats thereof; or of corrupt and Malignant Vapors which infest the stomach. It ought to be Cured by Evacuation of the Morbifick Matter by Vomit or Stool, and first with an infusion of Rhubarb and Tamarinds. But in the declination, if the Feaver be not strong, with *Hiera Picra* dissolved in a Decoction of Barley, Vetches, Wormwood and other detergent things. Afterwards we must use Clysters, which occasionally do revel from the stomach. Also acid and refrigerating things are frequently to be given, as Syrup of Lemmons, Pomegranats, some Cherries &c. given alone or with cold Water. In the declination or when the Feaver ceases, Syrup of Roman Wormwood may profitably be given, either alone or mixed with acid Juyces or Syrups. Let Meats that are grateful be presented to the sick. For as *Hippocrates* teaches in Aphor. 38. Sect. 2. The Pleasanter Meat and drink, though somwhat the worse, is to be preferred before that which is bitter and not so pleasant. Also let them eat but little and seldom, for much

and

and frequent eating cauſes Want of Appetite even in thoſe which are wel. And let their Meats be ſauced (provided they have no cough) with Juyce of unripe Grapes, Vinegar of Roſes and Juyce of Lemmons. If the ſick do ſo abhorer al Meats that they can take nothing at al, let them have nourifhing Clyſters given them twice or thrice in a day; the excrements being firſt avoided by a cleanſing Clyſter. When the Feaver is wholly allaied and gone, if want of Appetite do remain, let the ſick perſon Moderately exerciſe, and uſe Capers, Saxifrage, Olives; let him change place and go into a colder Air. And finally if theſe helps ſuffice not let the Patient uſe Wormwood Wine and pils of *Hiera Picra*, which do powerfully cleanſe away ſuch Humors as are faſt ſticking in the Coats of the ſtomach.

Hiccupings and Vomitings which betide perſons in Feavers are oppoſed by divers Medicaments, the materials whereof are to be fought for in our cures of thoſe Infirmities of Vomiting & Hiconping & to be Judicially accomodated to ſuch perſons as in Feavers are troubled with thoſe Symptoms. But ſpecial care is to be taken that a critical Vomiting be by no Means ſtopped. Hiccoughing ſomtimes proceeds from immoderate uſe of refrigerating things, as *Lemnius* witneſſes, whoſe words *Schenkius* doth thus relate. *Hiccoughing in Feavers doth ſomtimes follow over abundant uſe of Refrigerating Juleps; and I have ſeen many ſo affected by the unadviſed Raſhneß of Phyſitians, which Symptom contrary to the expectation of all Men, I Cured by giving the Patient Wine to drink.*

A Looſneſs befalling one that hath a putrid Feaver, if it be critical (that is proceeding from the Conqueſt of Nature over the Morbifick Matter and tending to expel the whol or Part thereof) it muſt not be ſtopped; neither muſt a Symptomatick Looſneſs be preſently ſtopped, at the very firſt, if it do not very much weaken the Patient, leaſt the Vitious Humor do flow back again to ſome principal Parts. When it is ſeaſonable to ſtop it, it muſt be done with a gentle aſtringent Purge, with cleanſing and Corroborating Clyſters; by Medicines taken in and outwardly Applied, which do thicken, ſtrengthen and bind. All which may be taken out of our Cure of a Diarrhœa or Looſneſs: beginning with the gentler and proceeding if need be to the more ſtrong by Degrees.

Sweats if they be not Critical (that is cauſed by Nature expelling the Humor offenſive) but Symptomatical [that is, cauſed by the vehemency of that Diſeaſe diſſolving the Body, and hunting the Humors through the Skin] and doth very much weaken the Patient, they muſt be ſuppreſſed by cooling the Air, with ſprinkling cold Water and the leaves of the Willow and Vine-tree upon the pavement; and if need be by opening the Windows; the Body being cooled and ayred by little and little, the Cloths being light upon the Patient, and a Flock-bed being put inſtead of a Fether-bed: alſo by often ſprinkling the Patients Face with Water and Vinegar mingled together, and finally by the uſe of cooling Aſtringent Medicaments; ſuch as are cooling Epithemes applyed to the Heart, Liver, and whol Belly, and often changed. Oyntments made of Oyl of Roſes, of Mirtles, of Mucilages, and Aſtringent Pouders, are to be anointed upon the whol Body; but eſpecially upon the Backbone. Pouders of Roſes, Balauſtians, Pomegranate rinds, Myrtle, Maſtich, Terra Samia, &c. Muſt be ſprinkled upon the Neck, Throat, under the Arm-pits, and in the Groins. Or let the Patient be wrapped in a Linnen Cloth, ſprinkled with a mixture of Vinegar and Water, and the aforeſaid pouders ſtrewed thereon; being in the mean time careful that no Inflamation, or Tumor be in the Parts about the ſhort Ribs: for then we muſt abſtain from Aſtringent things, at leaſt ſuch as are ſtrong. The Sweat muſt not be wiped off, but ſuffered to dry about the Pores of the Skin, ſo to ſtop them that more may not follow.

Alſo we muſt give in at the Mouth, Medicaments that thicken and ſtrengthen, as Barley Water boiled with Lettice and cooling Seeds; Reſtorative Broths, with Juyce of Pomegranates, ſowr Grapes, Pouders of Corals, Pearls, ſhavings of Ivory, Sanders, or Baulauſtians. Juleps of the Waters of Roſes, Lettice, Purſlain, with Syrup of Pomegranates, dryed Roſes, or Quinces. Conſerved Electuaries, of Conſerve of Roſes, Corals, Pearls, Terra Sigillata, pouders of Diamargaritum frigidum, and ſuch like.

AN APPENDIX.

In the Cure of moſt acute and pernicious Feavers, one thing is diligently to be noted that ſuch Feavers ſeldom happen without ſome inward and peculiar diſorder and commonly Inflamations of ſome of the inward Bowels as Liver, Spleen &c. So that we muſt evermore be careful of the Parts under the ſhort Ribs, of the Head, the Breaſt, the Womb; Reins and Bladder: that by al means poſſible we may hunt out, which of thoſe is much out of order, and as much as may be reſtore the ſame to its Natural Conſtitution.

Chap. 3. *Of a Tertian Ague.*

AN Ague, or Intermittent Tertian Feaver, is caused by an Excrementitious Chollerick Humor, contained in the first Region of the Body, and there putrefying.

A Tertian Ague is either Legitimate and Exquisite, or Illegitimate and bastard.

A Legitimate or Exquisite Tertian Ague, is terminated in twelve hours, and is caused by the putrefaction of Natural Choller. But a bastard Tertian hath fits that last above twelve hours. But if it exceed twenty four hours, it is termed *Tertiana extensa*, a stretched Tertian. And it is caused either by Preternatural Coller putrefying, or by Natural Choller mingled with other Humors, especially with flegm.

Also Tertian Agues are Simple, or Double, or Triple. A Simple Tertian, is that whose Fits come every other day. A Double Tertian is that whose Fits come every day. And although herein it differ not from a Quotidian or every day Ague, yet they are known one from the other by their proper Signs, shewing the abundance of Flegm or Choller in the Patient; of which Signs in their place. Somtimes notwithstanding in a double Tertian there are two fits in one day, the other day remaining free; and this some latter Physitians do call two Tertians, and make it to differ from a double Tertian. Which Distinction notwithstanding is of final moment. A Triple Tertian is when there are three fits in the compass of two daies. This is a most rare and seldom seen sort of Feavers. Yet *Galen* propounds one single Example thereof, and I saw another in the yeer 1637. in a certain Gentleman, who once in sixteen hours had a fit of a Tertian Ague. And all the fits did every one of them terminate in the space of ten or twelve hours, by sweat. Now these divers Paroxysms are made by a different matter putrefying in different places, so that each one hath as it were its peculiar Chimney where it is first kindled.

Now the Humors causing Tertian Agues, are collected chiefly in the first Region of the Body; viz. In the Liver, the bladder of Gall, the Stomach, the Melentery, the Pancreas, or in the Veins of those Parts.

Their Causes, are all such things which ingender Excrementitious Choller, viz. An hot and dry distemper of the Spleen, youthful Age, Hot Constitution of the Air, Watchings, Cares, Anger, Fastings, use of hot Meats, over much Exercise. To these are added, for the breeding a bastard Tertian, such Causes as engender Flegm and Melancholly. Hereupon, such as have hot Livers, and by Glutinous and bad Diet, do breed many Crudities, are subject to bastard Tertians, by reason of the mixture of Choller with crude Humors. And hence also it is, that in Summer time, crude Humors bred through weakness of the Natural Heat, by eating of Fruits, and over much drinking, being mixed with Choller, do breed bastard Tertians.

The Signs to know an Exquisite Tertian by, are these: That this Feaver alwaies begins with great shaking Fits, whereas in a Quotidian Feaver or Ague, there is only a light shivering or coldness. After the cold shaking Fit, follows great Heat, sharp and biting, Intollerable Thirst, great and frequent breathing, want of Sleep, Head-ach, and somtimes Ravings. After the shaking fit, somtimes there follows a vomiting of Chollerick Humors, or a purging by Stool. The Urine is somtimes Yellow, Yellowish-Red, or Red. The Fits last not above twelve hours, and they are terminated by Sweat. Also the Causes fore-cited, breeding Choller, have preceded.

In a bastard Tertian, all the foregoing Signs are more remiss than they are in an Exquisite one, but more intense than in a Quotidian Ague. And according as there is more or less flegm mingled with the Choller, the Fits come neerer to those of an Exquisite Tertian, or of a Quotidian; but in respect of the vehemency of the Symptoms, and the length of the Fit it self. So that the Paroxysms of a bastard Tertian may be lengthened out to sixteen, eighteen, or more hours. Although they may be somtimes shorter, because of the paucity of the Matter, and be terminated within the space of eight, ten, or twelve hours.

The Prognostick of this Disease, is taken out of *Hippocrates*, in Sect. 4. Aph. 59. *Exquisite or exact Tertian Agues last but for seven fits at most.* And in Aphor. 43. of the same Section, *All Intermitting Feavers are void of danger.* Which is to be understood only of such Tertians as are void of all malignity. For there are Malignant and Pestilent Tertians, which though they have evident Intermissions; yet do they often kill the Patients. Furthermore, many things fall upon the Neck of a Tertian, which may breed danger, although the Feaver of it self be not dangerous.

Haly writes, and common Experience shews, That if such as are sick of a Tertian Ague, have Ulcers, Scabs, or Pustles breaking out in their Lips, it is a token the Ague wil leave them. For it is a kind of Critical Evacuation in those parts.

A Looseness

A Looſneſs befalling one that hath a Tertian Ague, the matter being digeſted, ends the Diſeaſe. And this is the way by which alone Nature doth perfectly expel the Cauſe of theſe Feavers. For ſeeing the Original Cauſe of theſe Feavers is contained in the Gall-Bladder, or the Liver, or the Meſentery, and other Parts in the firſt Region of the Body; although that which ſteems and vapors therefrom in every fit, do get into the habit of the Body, and is purged away, either by Sweats, or by inſenſible Tranſpiration, or by Puſhes and Pimples; yet the groſs parts and ſetlings of the Humor abiding in their place, which unleſs by the benefit of Nature, or Medicaments it be purged away by ſtool, it is wont to be the Cauſe either of a long Ague, or of Obſtructions, or of a Relapſe, or of other ſtubborn Diſeaſes.

Agues are wont to be of ſmal durance and little danger, if the habit of the whol Body be good, if the bowels be wel affected, if it be Spring or Summer, if the Patient eat little, and drink ſparingly. And contrarywiſe, they are wont to be long and more rebellious, if there be an evil diſpoſition of the Liver or Spleen, if the Patient abound with flegmatick Humors or Melancholick, if the Winter or Autumn be in their full force, if the Patients do eat much, or by much drinking do oppreſs their Natural Heat.

The Cure, as in other Feavers, is to be directed to the Feaver, its Cauſe, and ſtrength of the Patient. The Feaver calls for Coolers; the Cauſe requires Coolers likewiſe, and withal ſuch things as digeſt and purge the Humor offending; the Patients ſtrength calls for things that corroborate and vigorate the ſame.

And in the firſt place, A Cooling Diet muſt be appointed, and which moiſtens; it muſt be the very ſame in an exquiſite Tertian, which we before preſcribed in our Cure of Continual Feavers. But in a baſtard and ſingle Tertian, a fuller Diet ſomwhat, is to be enjoyned, eſpecially if the Diſeaſe prove to be long; for then ſolid Meats are to be given on the wel-day, and five or ſix hours before the fit. But in a double Tertian, as in an exquiſite Tertian, the Sick muſt be nouriſhed only with broth, and other ſupping things.

This is a moſt pleaſant Drink out of *Foreſtus*, for thoſe which have a third day Ague.

Take *Fountain Water two pints*: *Cinnamon half an ounce*: *Sugar three ounces*: *Let all be ſtrained cold and raw, through an Hippocras Bag.*

The Patient muſt not eat when the Fit is coming, according to that ſaying of *Hippocrates*, in Aphor. 11. Sect. 1. For Nature (as *Galen* ſhews in his Commentary on that place) by Concocting of newly eaten Meat, is called away from Concoction of the Morbifick Humors. Add hereunto, That in the fit of an Ague, the whol body is filled with a filthy vapor, which doth mar, and for the moſt part corrupt that meat which is eaten neer the fit. But if the fit prove ſo long, or the Patients body ſo hot and dry, ſo lean and thinly woven together, with wide pores, that it is ſoon diſſolved and diſſipated, and cannot hold out to the end of the fit; the Patient in ſuch a caſe may be allowed to eat in the fit, and it wil be better to eat when the fit is in the ſtate or height, than at any other time. Howbeit, in the beginning alſo, and in the augmentation, neceſſity compelling, Meat may be given. For ſo *Galen* in the tenth of his Method, Chap. 5. was compelled to give Meat even in the beginning of the fits, unto ſuch as had this kind of Ague, being of a hot and dry temperature, unto whom faſting is extreamly hurtful, leſt they ſhould fall into ſwooning fits. And in imitation of him, *Amatus Luſitanus* in the 68. Cure, of the fourth Century, to one that was full of, and vomited pure Choller, and by that means fell into ſwooning fits, he gave bread dipt in water, and ſprinkled with Juyce of ſowr Grapes in the beginning of the Ague fit; by which means he hindered the aforeſaid Symptomes.

There is one thing yet further to be obſerved both in this, and all other Agues, That the Patient do neither eat, drink, nor ſleep, before the fit. But it wil be good that the Patient go to ſtool, by means of a Clyſter, provided the ſame be adminiſtred before the beginning of the fit.

Having therefore ordered a convenient Diet, we muſt forthwith proceed to evacuate the Morbifick Matter, which ſeeing it ſticks in the firſt Paſſages, it muſt be voided not only by Clyſter, but by Purges and Vomitories.

Clyſters in an exquiſite Tertian, muſt be made of an Emollient and Cooling Decoction, with Caſſia, Catholicum, Diaprunum ſimple, and purgative. But in a baſtard Tertian, let the Decoction be of Emollient and Cutting ſimples, diſſolving therein Diaphœnicon, Honey of Roſes, &c.

Purgative Medicaments in an exquiſite Tertian, muſt be the ſame which have been propounded in continual Feavers. But in a baſtard Tertian, there muſt be added Agarick, Senna, Catholicum, Diaphœnicon, and others, ſuch as the Judicious Phyſitian ſhall conceive moſt ſuitable to the conſtitution of the ſick. And in every ſort of Agues, Cream of Tartar may profitably be added to the Medicaments, becauſe it opens Obſtructions, is potently cleanſing, and yet cools withal. Purging Medicines are to be given on the day of Intermiſſion, and that in the morning, as commonly is uſed; if the time of Intermiſſion fall within thoſe hours: if not, the middle ſpace between the two fits muſt be choſen. And at any hour of the day or night, we may give a Purge, provided it be far from the Fit, and the Stomach have digeſted what was laſt eaten.

But

But in a double Tertian, 'tis an hard matter to choose a convenient time to give a Purge, because many times, not above three or four hours do fal between two fits. Yea, And sometimes the fits are so long, that the one begins before the other be ended, which makes them be called *Febres Subintrantes*, encroaching or intruding Feavers. For then the speedines of the occasion or opportune time, requires the uttermost diligence of the Physitian. Now the more commodious hour of giving the Medicine, is thus to be chosen. In a double Tertian not encroaching, the Medicament must be given in the end of the Fit, at such a distance from the following Fit, that the working of the Physick may be over ere the other Fit come. But in an encroaching Ague, when the latter Fit interfers with the former, the Medicament must be given in the beginning of the declination, as soon as it begins never so little to remit. And in both Cases the Patient must drink Broth, three houts after the Medicament is taken; yet so, as that there must be remaining three hours from the Broth-taking before the next Fit begin. So that the Medicament, is to be given at least six hours before the next Fit.

As for Vomits, What was said of them in the Cure of Continual Feavers, may be here very commodiously applyed; because the abundance of evil Humors conteined in the Stomach, Mesenterie, and Cavity of the Liver, which is wont to cause these Feavers, is brought away by Vomit; which sometimes cannot be moved by purging Medicines given again and again, as *Fernelius* hath well observed. And therefore, If in the beginning of the Fit, the Patient be vexed with Vomitings, the Physitian shall do well to follow that motion of Nature. And seeing the gentlest sorts of Vomits, will not ordinarily serve the turn, we must proceed to the middle sort, such as is especially *Asarum*, of the pouder whereof, half adram, two scruples or one dram, is given in Broth, or some other convenient Liquor. Others give the Decoction thereof, which is made of three drams of Asarum Roots, boiled in Chicken Broth, or in Barley Broth made with Raisons. The Chymists do give white Vitriol prepared, and Salt of Vitriol, and also *Aqua Benedicta*, which is made of *Crocus Metallorum*. Which, as other Medicaments made of Antimony, as they do sometimes happily rid away such morbifick Matter as is lodged in the first passages about the Stomach and Mesenterie, &c. So do they require a prudent and skilful Physitian to administer them; otherwise they are like a sharp Knife in the hand of an Infant, or like a Sword in the hand of a Mad-man.

The first passages of the Body, or first Region thereof, being purged, at least with one Purge, a Vein is to be opened in the Wel-Day. Yea verily, And if the Patient be Plethorick, the Urins red and thick, the Cure is well begun by Blood-letting, for the Purge will afterwards work the better.

If the Blood appear very Hot, Adust, or Putrid, Bloodletting must be repeated; which yet is left to the Judgment of the Physitian, according as he finds the Patients constitution.

After Purgation and Phlebotomie, we must endevor to prepare the Humors, by Juleps such as were set down in the Cure of Continual Feavers; the matter whereof must be varied, according as Flegm or Melancholly is mingled with Choller, as was observed in the place aforesaid.

In the mean time, whilst the Medicines aforesaid are making, the Feaverish heat is to be allaied with cooling Epithems applyed to the heart & Liver, such as were propounded in Continual Feavers, with this Caution, that they be never laid on, but in the height of the Hot-Fit, or rather when it first begins to abate.

To the Liver also and the Loins, Oyntment of Roses, or the cooling Oyntment of *Galen* may be applyed.

Also Emollient and cooling Clysters, will be very good at the end of the Fit, as well as in the beginning.

The matter being prepared certain daies, by the use of Juleps, Purgation must be again used, with Senna, Rhubarb, Catholicum, Syrup of Roses; adding thereto Agarick, if Flegm abound. And And if the Patient be strong; we may add *Diaprunum Solutivum*, *Electuarium de Succo Rosarum*, or *Diaphœnicon*.

The Body being again purged, after the use of Juleps, if the Fits return and seem longer than they were before, it is a sign that grois Humors, and such as stick fast in the Body, do nourish the Feaver, and breed Obstructions: In regard of which, clensing, opening and cutting things are to be used The Principal of which is Wormwood, which is exceedingly commended by *Galen*. In his 1. Book *ad Glauconem* Chap. 9. and Century, which in regard of the rare vertues it has in curing Agues, is called *Febrifuga*, that is to say Ague-Queller. But because these Herbs are hot, they may be qualified by the Commixture of cooling things, after this manner.

Take *Roots of Graß, Cichory, Asparagus, of each one ounce: Leaves of Agrimony, Sorrel, Cichory, Endive, of each one handful: vulgar Wormwood and Centaury, of each an handful: Boil all to a pint. In the strained Liquor dissolve three ounces of Syrup of Lemmons. Make all into a Julep for to be taken at three times in the morning.*

The Juleps being finished, a Purgation must be again administred or a Vomitory, if Nature affect to discharge her self that way. For then, the signs of Concoction appearing, these Feavers are sometimes.

ſomtimes happily Cured by Vomiting. And *Galen* in his firſt Book ad *Glauconem* Chap. 10. Writes that many are Cured of this kind of Ague only by a Vomit yea verily and daily experience ſhews, that *Aqua Benedicta* doth eradicate theſe Feavers or Agues for the moſt Part, unleſs ſome contumacious obſtructions of the Bowels do hinder. Many Experiments hereof are propounded by *Martinus Rulandus* in the Centuries of his Cures. But, it is, as was ſaid before, a vehement Medicament, and not to be given without extream Caution. Some give an ounce of *Aqua Benedicta* with the Infuſion of half an ounce of Senna, and ſo it works more by Stool than by Vomit.

Others uſe Cambogia, others *Mercurius Dulcis* with Scammony. Which Medicaments, ſeeing they do potently Evacuate, do often Pluck theſe kind of Feavers away by the Roots, but they are to be given only to ſuch as are ſtrong of Conſtitution.

To theſe Medicaments exquiſite Tertians and Baſtard ones too, are wont to give place. But if the Agues do yet ſtubbornly reſiſt (as it ofttimes fals out) Solemn Purgation muſt be made with an Apozem to be taken three daies, made of the Materials of the foreſaid Juleps, adding thereto Senna, Rhubarb, Agarick, Syrup of Roſes of Cichory with Rhubarb and ſuch like. Yea verily and althoug the Ague be gone before the uſe of this Apozem, if a Voluntary Looſneſs do not befal the Patient. For the ſolution of an Ague by Sweat or inſenſible Tranſpiration, as not to be truſted unto, gives ſuſpition of a Relapſe; becauſe by them the thinner Part only of the Humor is Evacuated, the thicker being left behind: which can no other waies be Evacuated, ſave by Stool.

Before the Apozem aforeſaid be uſed, if there be a Diſtenſion in the Parts under the ſhort Ribs, let this following Emollient, attenuating and ſtrengthening fomentation be applied.

Take *Roots of Marſh-Mallows, Graſs and Aſparagus, of each one ounce: Roots of Enula Campana and the middle Bark of Tamarisk of each half an ounce: Leaves of Mallows, Violets, Agrimony, Maiden-Hair and Wormwood, of each an handfull: Lin-Seed and Fœnu-Greek Seed, of each one ounce: Flowers of Chamomel, Melilot, Roſes of each a pugil: Boyl all in three Parts of Water and one of white Wine, put in towards the concluſion, with two ounces of Vinegar: with this Decoction foment the Parts under the ſhort Ribs Morning and Evening, for two daies before the uſe of the Apozem.*

After Fomentation, anoint the ſaid Parts with this following Oyntment.

Take *Oyl of Lillies, Sweet Almonds and Tamarisk of each one ounce: Oyntment of Marſh-Mallows two ounces: and a little Wax. Make all into a Liniment.*

If after al theſe remedies, the ſtubborn Ague do yet lengthen the time and keep its ground; and the Patients Face appear ſwoln, and paliſh, alſo their Legs ſwel towards night: they are to be plied with ſuch Medicines as are commonly preſcribed for obſtructions of the Liver. Among the reſt, *Montanus* doth very much commend the Decoction of Cichory and Germander in Broath; which he ſaies is admirable in long Feavers that are cauſed by obſtructions.

Yet, it is to be noted; that the length of a Tertian Ague is ſome times cauſed by an hot and dry diſtemper of the Liver, whith perpetually produces a Chollerick Humor, the Cauſe of new Fits. Which is often obſerved in many, which being of a dry and meagre conſtitution of body and wholly Chollerick, have had a Tertian Ague three or four months together, eſpecially in the more hot ſeaſon of the yeer, without any tenſion of their Bowels, or any abundance of Humours. To ſuch as theſe, ſtrong purgers, and ſtrong aperitives or heaters do hurt. But ſuch as theſe are to be plied with a cooling and moiſtening diet, with Juleps and Broaths of the ſame Nature. And the ſuperfluous Humors are to be Purged away by little and little with Emollient and Refrigerating Clyſters, with Caſſia, Tamarinds, Catholicon and Syrup of Roſes. But in this caſe eſpecially great miracles are performed by a barh of Blood-warm Water, which doth extinguiſh the hot and dry diſtemper which is imprinted upon the Bowels. Let the Patient uſe theſe baths, on the Well-day, but without ſweating.

Somtimes alſo the Length of Tertian Agues ariſes from the evil diſpoſition of ſome of the Bowels, eſpecially of the Liver and Melentery; which cannot be Cured by purgations though never ſo oft repeated, becauſe that evil Quality remaining ſtil in the Liver, cauſes new Morbifick Matter daily to breed, which produces new Fits. Which evil Diſpoſition or Quality of the Bowels, is taken away by Diureticks, Sudoroficks, and other reſolving Medicaments.

With which faculties theſe following ſimples are endued viz. Wormwood, Centory, Carduus, Roots of Dictamnus, of pimpernel, Tormentil &c. Of which are made Decoctions, Pouders, and ſuch like, which muſt be given for divers daies together before the Fit.

A dram of Uenice Treacle is ordinarily given with white Wine, before the Fit, three times one after another.

Some give a walnut preſerved in Sugar or Honey after the ſame manner.

When the Heat of Uenice Treacle is feared, it is at firſt given by itſelf, and a draught of Plantain-Water

Water is given after it. My Master *Varandæus* did often use this as a Specifick Medicine.

A Cup of *Hippocras* given before the Fit wil work the same effect, with which pleasant Medicine many have been Cured.

Yet must it carefully be observed, that these remedies must not be given, till the Patient hath been diligently Purged.

Zechius Frequently used these following Pils, which are most effectual for opening Obstructions, strengthening the Liver, and taking away the distempers of the Bowels.

Take *Troches of Rhubarb, of Eupatorium, and of Wormwood, of each half a dram: Pouder of Diarrhodon Abbatis one scruple: with Syrup of Wormwood make a Mass of Pils. Of which let the Patient take one dram in the morning three daies together, drinking after them a draught of Broath made with Cichory and Maiden-Hair.*

Montanus was wont to give many daies together a scruple of Troches of Rubarb or of Wormwood, with Broath in which Barley, Parseley Roots, Cichory and Borrage have Boyled.

Let the Region of the Liver be anointed morning and evening before Meals, with a Liniment made of two ounces of *Ceratum Santalinum*, Juyce of Cichory half an ounce: Juyce of Wormwood two drams: and a little Vinegar of Roses.

In like manner let the Region of the stomach be anointed with this Liniment.

Take *Nard Oyl, Oyl of Wormwood and of Quinces of each half an ounce:* Gallia Moschata *one scruple: white Wax as much as shall be requisite. Make al into a Liniment.*

Besides the Medicaments hitherto propounded, which respect a regular and Methodical Cure; there are many other specifick and Empirick Medicaments, both internal and external; both commended by Practitioners, and frequently used by the common People; out of the almost infinite number whereof I shal here set down such as are the choicest. And among these Medicines may be reckoned, such things as were before propounded, to amend the evil Quality of the Liver and Mesentery which is wont to make long Agues: whereunto, these things following may profitably be added.

And in the first place, Spirit of Sulphur in a Legitimate Tertian, or one very neer Legitimate, after bleeding and Purging, being given with Purslain Water in the vigor of the Fit, doth powerfully extinguish the heat of the Feaver; and if the Humor be thin, drives the same out by sweat, that there remaines no matter for a new Fit, and so is the Disease Somtimes pluckt up by the Roots. It is given from half a scruple to a scruple, with four ounces of Purslain Water.

And somtime the said spirit is mingled with Salt of Wormwood, which is also of great Efficacy in the Cure of Agues the Composition is thus.

Take *Salt of Wormwood half a dram: Spirit of Sulphur a scruple: Carduus Water four ounces: Mix them. Let the Patient take it when the Fit Approaches and be covered with many Cloathes.*

Some Affirm that the Juyce of Plantain Clarified and drunk to the Quantity of four ounces, an hour before the Fit, doth Cure a Tertian Ague. Some give it with Vineger and Saffron after this manner

Take *of the Juyce of Plantain four ounces: Vinegar of Roses half an ounce: Saffron three grains: Mix them and give the Patient to drink, two hours before the Fit.*

Manardus prefers a Decoction of Chamomel, or the distilled Water thereof, to the Quantity of four ounces, two hours before the Fit.

A Medicine commonly used, and often successful, is, a little Potion made of Rose-Water, Plantain Water and Aqua Vita of each a spoonful; given before the Fit.

These following are outwardly applied.

Take *Leaves of Hyssop and Tansie cut smal, of each a pugil; Mirrh two drams: Mace, Nutmegs, Cloves and Cinnamon, of each half a dram: Venice Turpentine and Juyce of Tansey, of each one ounce: Mix all and spread them upon a Rose-Cake, fried in a frying Pan with Canary Wine, which being covered with a Linnen Cloath must be applied hot to the Region of the stomach, an hour before the Fit.* Or,

Take *Wormwood and Green Mint of each a pound: Crust of Bread toasted and steeped in Vinegar half a pound: pulp of Quinces, or Conserve of Quinces made with Honey two ounces: Mastich half an ounce: Mace and Nutmeg of each two drams: Let al be beaten and lustily wrought together, with Oyl of Quinces. Make hereof a Cataplasm to be applied before the Fit. It provokes sweat and takes away the Pains of the stomach.* Or,

Take *Nutmeg, Cloves, Cinnamon, of each three drams: Mirrh and Ginger of each two drams: Make al into a Pouder; mix it with Liquid Pitch and make thereof a Plaister for the stomach.*

Also this following Cataplasm may profitably be applied to the Liver.

Take *white Sanders and Red of each one dram: Barley Meal two drams: Aloes half an ounce: Flowers of Violets and Roses dried of each one dram: With Juyce of Wormwood and*

Vinegar

Vinegar make a Cataplasm, to be applied to the Region of the Liver one hour before the Fit.

Neither are those Medicines wholly to be rejected which the common people are wont to apply unto the Wrists of such as have Agues. For not only the Opinion of People is hereby satisfied, who conceive that many are cured with these Remedies; but somwhat they may effect, by communicating their vertues unto the Heart by those notable Arteries which are scituate in the Wrists. The chief of which kind of Medicines are these that follow.

Take *Leaves of Plantane, Celondine the great, of each one handful: Cobwebs, Nettle Seeds, Soot from the Chimney, and common Salt, of each one dram: the strongest Vinegar as much as shall suffice. Make of all a Cataplasm to be applied to the Wrists a little before the fit, and to be repeated fresh three or four times.*

Mous-Ear beaten with Salt and Vinegar, is by some accounted of great efficacy, being applied to the Wrists before the fit.

Of some, the smallest sort of Housleek or Mous-teat is commended, being used after the same manner.

Others commend the Leaves of Shepheards-purse beaten with Salt and Vinegar.

Platerus applies unto the Wrists the inner bark of the Nut-tree steeped in Vinegar; which he saith, had been by him used with success.

Finally, Others apply such things as are apt to blister the Skin, as Garlick, Onions, Crow-foot, and the like; which are less safe than the former, and very troublesom to the Patient.

Chap. 4. *Of a Quotidian Feaver.*

A Quotidian Ague is so called, because its fits do return every day. Wherein it agrees with a double Tertian, and a triple Quartan, but is distinguished from them by signs proper to it self. This Feaver is most rarely seen, so that among six hundred Patients that have Agues which come every day, scarce one of them is troubled with a Quotidian or every day Ague.

This Ague is caused by flegm putrefying in the first Region of the Body: And therefore all such things as multiply flegm in the Body, may cause this Ague, such as are, a cold and moist distemper of the Bowels, old Age, Childs Age, an idle life, Autumn Season, Meats cold and moist, long Sleeps and such like.

The Diagnostick Signs are such as testifie flegm to abound in the Body; as greatness of bulk, softness and fatness, white color, or pale, dull sence, profound sleep, and dreams of Waters. Also this Feaver for the most part comes in the night, and that without shaking, only with a coldness or light shivering, because the Morbifick Matter being benign, and not much an Enemy to Nature, doth less provoke her; and therefore the heat is not suddenly drawn inward as in a Tertian Ague, but retires by little and little. The time of Coldness being over, Heat is slowly and unequally kindled, so that the Patient feels sometimes heat, and then cold, and then heat again. Also the heat is mild, and not at all scorching, and thirst little. The Urines are at first white, thin, and undigested; and in the process they appear more thick, and better colored. The Pulse is smal, seldom, and slow. The Parts about the short Ribs do swel, and are commonly puffed up, and distended. The fits do commonly last twelve hours, and do not end but so as to leave some Feaverish heat behind them; because this Feaver is like a fire of green wood, which is both long in kindling, and leaves much smoak behind it. Sometimes the fit is extended to twenty four hours, and it seems to be a continual Feaver.

Now these Signs are very variable, and appear more intense or remiss, according as the flegm is either simple, or mingled with other Humors; and likewise according to the different kind of the flegm which putrefies. So that, according to *Galen* in his Book of Plenitude, Chap. 11. Salt flegm makes the Patients thirsty; acid or sowr flegm makes them hungry; sweet flegm makes them sleepy; tastless flegm makes them without appetite to Meat: and likewise Feavers which are caused by acid or Glassie flegm, are wont to come with a shaking fit.

This Feaver is wont to be perpetually long, because of the thickness and contumacy of the Morbifick Matter, and lasts forty dates, and sometimes three or four months. Neither is it without danger, seeing it may degenerate into a Cachexy, Dropsie, Lethargy, and other grievous Diseases. The longer or shorter durance of this Feaver, is known by the signs of Crudity and Concoction, and also by the Evacuations, which for the most part Nature endeavors by Vomit, Stool, or Sweat: For those Evacuations appearing, shew the Disease shorter: but if Nature endeavor no Evacuation, the Disease wil prove the longer.

A Quotidian Ague that comes in the day time, is less dangerous than that which comes a nights, as *Hippocrates* doth teach us in 3. *Epidem. Sect.* 5. T. 64. He calls the former a Diurnal, the latter a Nocturnal. The reason of which Prognostick, is because that the Diurnal have longer fits; for reaching unto night, in which the pores of the Skin are closed, the putrid vapors are kept within, not having

having freedom to breath forth by which means, the fits are lengthened, and as *Hippocrates* himself saith, do very often bring the Patient into a Consumption. Ad hereunto, That seeing the Intermission happens in the night, we are forced to give the Patient Meat in the night, which is unseasonable, and hinders the Patient from sleeping; by which means great weakness is caused, and the Patient is much hurt, and the Functions of the Body quite put out of frame.

The Cure must be in a manner the same with that which was propounded for a bastard and lingring Tertian, yet so as that among such things as prepare the Humors, and open Obstructions, we make choyce of such, which have a greater power to attenuate and cut the Humors. Also in this Feaver a special care is to be had of the Stomach, which for the most part is grievously afflicted; and therefore must be recreated with strengthening Medicaments, both given in, and outwardly applied, The Cataplasm of Mint and Wormwood, propounded in the Cure of a Tertian Ague, is very good in this case.

Zacutus Lusitanus propounds two Medicines, with which he glories that he had vanquished most stubborn Quotidian Agues. The one is a Decoction of Chamomel, made after this manner:

Take *Flowers of Chamomel three pugils: Tops of Roman Wormwood two pugils. Boyl all in three pints of Water to a pint and an half. Add to the strainings four ounces of Sugar. Let the Patient drink five or six ounces every morning.*

The other is a Decoction of China and Guajacum drunk twenty five daies together; which though Physitians are afraid to use in such Feavers as these, because of the over-great heating and drying Faculty; yet is it mightily commended by such as have writ whol Books of the Spices and Drugs of *India*. Yet we must remember that *Zacutus Lusitanus* practiced Physick in a Country cold and moist, where these Medicines may more safely be used. And therefore in other Countries that are hotter, they must not be given save unto very Flegmatick and Cachectical Bodies.

Chap. 5. *Of a Quartan Ague.*

A Quartan Ague is that which hath its Fits returning every fourth day, and it is caused by Melancholly putrefying in the first Region of the Body.

Now Melancholly is of two sorts; Natural, and Preternatural. The Natural is bred of the thicker and more earthy part of our Nourishment, being cold and dry. The Preternatural, is caused by adustion of Choller, and is therefore hot and dry. Hence arise two sorts of Quartan Agues; for that which is bred of Natural Melancholly, is called a legitimate-Quartan; that which is bred of Preternatural Melancholly, is called a bastar Quartan. Howbeit, the bastard Quartan may also come of Natural Melancholly, being mingled with some portion of Choller.

Again, A Quartan Ague is either Single, Double, or Triple. A Single Quartan is when one Fit alone comes every fourth day. A Double is when two Fits happen upon two daies one immediately after the other, and the third day is free. A Triple Quartan is when the Fits come every day, as they do in a Quotidian, and in a Double Tertian. Now these Double and Triple Quartans come of Melancholly putrefying in divers parts of the Body.

The Signs to know this Ague by, are first, such things as argue that Melancholly abounds in the Patient. Unto which must be added the coming of the Fit upon the fourth day, which is the peculiar sign. Also the form of the fit differing from the fits of other Agues, doth discover this Disease. For it begins with yawning and stretchings, together with heavines of the whol Body; after which follows cold, and then shivering and shaking, in which the Patients seem to have their bones broken. Also the heat is kindled by little and little in a cold and thick Matter. The Pulse is seldomer and slower than in other Feavers. The Urines are at first white, thin, and watry; but in the progress they are more colored, and thicker. Now these signs appear in a legitimate Quartan. But in a bastard Quartan, the vehemence of the Symptomes being greater, doth argue the Humor to be thinner and hotter. But a bastard Quartan is not distinguished from a legitimate, herein alone, in that in a bastard Quartan, the heat, thirst, watchings, and other Symptoms, are more vehement; but in that the legitimate begins of it self, without any Feaver foregoing; but a bastard Quartan succeeds other Feavers and Agues, by reason of the adustion of the Humor which caused those Diseases, by means of which adustion, it degenerates into Preternatural Melancholly.

A Double Quartan is easily known by the Course of the fits. And a Triple Quartan is distinguished from a Double Tertian, and a Quotidian, not only by the Signs of Melancholly abounding, and by the form of the Fits; but also because it was first a Single, or a Double Quartan before it came to be a Triple Quartan. For very rarely, or never doth a Quartan Ague begin with a Triple; but a Simple or Double Quartan degenerates into a Triple.

As for what concerns the Prognoſtick; this kind of Ague is wont to be longeſt of all others; and that which begins in the fal of the leaf continues al Winter commonly, and goeth not away til the Spring come. Yea and ſome Quartans continue a yeer or yeers. Summer Quartans are the ſhorteſt. In al of them we muſt have a continual eye to the ſigns of concoction which ſignifie the ſolution of the diſeaſe to be at hand; and with theſe, for the patient to make black urine is a good token.

A legitimate Quartan is longer than a baſtard Quartan becauſe the former proceeds from a thicker, the latter from a thinner Humor

This kind of Ague is wont to be very ſafe from danger, eſpecially the legitimate, being accompanied with no grievous affection of any of the bowels. But the baſtard Quartan is more dangerous. and if the Liver, Spleen, or any other part be grievouſly damnified, it degenerates into a Dropſie,

Aged perſons above ſixty years, being taken with a Quartan Ague, do for the moſt part dy of it: becauſe their naturall heat is too weak to overcome ſo contumacious an Humor.

An intermitting Quartan, being changed into a continual, is for the moſt part deadly. Becauſe that Feaver whoſe motion was outward, is changed into one whoſe motion is inward. Which moſtly falls out in the Winter, the cold meeting with the humours which were but outward and beating them back into the innermoſt Cloſets of the Body. The which alſo come to paſs by unſeaſonable uſe of ſharp and vehement purges. For thereby of ſimple Quartans, double, triple, and continual are generated.

A Quartan Ague coming upon one that hath the falling ſickneſs cures the ſame, according to *Hippocrates* in the 70 Aphoriſm of the 5 Section. *Thoſe that have Quartan Agues are not much troubled with Convulſions. And if having firſt Convulſions, a Quartan Ague follows, they are freed from their Convulſions*, Now the reaſon which *Galen* in his Comment gives hereof, is; becauſe the thick matter which cauſed the Convulſions is by the long heat of this Ague, attenuated and digeſted. Alſo by the ſhaking of the Body in the cold Fits, the ſaid Humor is more eaſily ejected. We muſt alſo add, that the evil Humors lurking in the Brain and other parts, as alſo in the veins, is transferred to the Hypochondria and more ignoble parts, where the Melancholly Quartanary Humors are ſeated, and ſo leaves the parts aforeſaid.

A bloody flux coming upon a quartan Ague, tends to health, according to *Hippocrates* in the 48 Aphoriſm of the ſixt ſection. *To ſuch as are ſplenetick a Dyſenterie is good.* Now in a quartan Ague, commonly the Spleen is miſaffected, and a melancholly humor is common to a quartan Ague and a miſaffected Spleen. but this muſt be underſtood of a ſhort dyſenterie, for a long one is wont to be mortal; as we have it in the 43. Aphoriſm of the ſaid ſection. *Such as being troubled with the Spleen have a flux of the Belly with pain, if it turn into a long Dyſenterie or Bloody flux, they fall either into a Dropſie or a Lienterie, and dy.*

To bleed at the noſe in a quartan Ague, is a very bad ſign. Becauſe the Humor which cauſes a quartan is too thick and too cold to be voided that way; and becauſe ſuch bleeding is ſymptomatical, and if it continue wil breed a dropſie; it muſt preſently be ſtopped by opening the baſilica vein, out of which the putrid blood may flow, becauſe the pure blood comes from the Noſe.

The quartan Ague hath a double cure according to the two kinds thereof. For the remedies uſed in a baſtard quartan, muſt be far different from thoſe which are uſed in a legitimate one.

And that we may begin with a Legitimate quartan; we muſt preſently ſet our ſelves to vanquiſh the cauſe thereof, not regarding the Feaver. And ſeeing the cauſe thereof is an humor cold and dry, thick and earthly; we muſt uſe medicaments that do heat, moiſten, and attenuate. Alſo the Peccant Humor muſt be at ſeaſonable times evacuated, which notwithſtanding will require a long time to do; becauſe of the extream contumacy of the Humor and length of the diſeaſe. But before theſe medicines be uſed, we muſt appoint the patient a conve[nient] diet. Let the patient therefore uſe meats of good juyce, eaſy to digeſt, of [ſub]ſtan[ce] moderately heating and moiſtening; as the fleſh of young Animals and r[oaſted] ſoft boiled, Fiſhes that are taken in ſtony Riv[ers] tient Salt Fiſh, Capars [and] Oliv[es] mong Herbs Borr[age] Roots, but [not]

monds, Dates, Pine-kernels are good. And finally, to Spice their Meats, let them use Cinnamon, Nutmeg, and Saffron.

Let the Patient abstain from Meats which are thick of substance and clammy and are long in passing through; such as the Flesh of Swine, Beef, Deer, Hares and Water fowl, from Pease and Beans, Colewort, Course Branny Bread, Cheese, Nuts, Walnuts and Chastnuts; from Flesh much Salted, or dried in the Smoak; from fruits, Raw Herbs, from Vinegar, Verjuice, because they are thought as al other sowr things to ferment Mellancholy and make it work

Let their drink be smal Ale or bear of moderate strength and meanly hopped neither new nor hard, Pure and wel Clarified white Wine or Clarret that is not strong, with Water in which the Bark of Tamarisk or the Leaves of Egrimony have been steeped, or a Decoction of *Salsa Parilla*, or Barley Water that hath Steel quenched in it.

Let them eat sparingly, no more than may barely preserve strength; for too larg feeding breeds crudities which makes the Disease of long continuance. But above al, they must be very spare in drinking, because nothing makes this Disease more rebellious and hard to Cure than over much drink and moist things, for they fil and Swel the spleen. *Crato* forbids al use of drink in the fit, which to forbear doth much as he saies help the Cure. On the fit-day, the Patient must eat six hours before the fit comes. And afterward nothing must be taken til the fit be over. Long sleep is good, because it moistens, but it must be forborn in the beginning of the Fit. On the daies of Intermission light exercise before Meat, is good; or in place thereof, frictions of the whol Body, after the Patient hath been at Stool. If thee Patient be costive, a Clyster or Suppository must be given. Finally let the Patient be as cheerful as may be and avoid sadness

The Patients Diet being thus ordered; first a gentle Purgation must be administred, by a Clyster and a purging Medicament. the Clyster may be thus Made.

Take *Roots of Bugloss two ounces: of the four Emollient Herbs, mercury and beetes of each one handful: Fat Damask Prunes five Pair: of the four larger cool Seeds and Annis Seed of each two drams: Epithymum three drams: Boyl all to a pint and an half: in the strained Liquor dissolve Catholicum one ounce: Oyl of Violets and Chamomel of each one ounce and an half: Red Sugar one ounce: Make of all a Clyster, which must be given the day before the following Potion, at a seasonable time.*

Take *Senna half an ounce: Annis Seed a dram: Leaves of Borrage and Fumitory of each one handful. Liquoris three drams: Boyl all to three ounces: in the strained Liquor dissolve Manna and Syrup of Roses of each one ounce: Make all into a potion.*

Galen in 1. *ad Glauco. Ch*: 11. Bids us give only gentle and benign Medicaments in the beginning of this Ague, otherwise, it is to be feared, that if we use stronger Medicaments, of a simple Quartan, we shal make a double, a triple or a Continual Feaver.

After the first Purge aforsaid, Blood must be drawn from the *Basilica Vena* of the left Arm. Yet, if the Liver be affected, it may be drawn from the right Arm. And their Opinion is Ridiculous, who say that we must expect Concoction before we let Blood, because then the Blood will be more thin and apt to flow: for it is better digested and prepared, if first some Quantity thereof be taken away. Neither must we give eare to them which say, that Blood-letting is not to be allowed of in a Quartan Ague, unless redundancy of Blood do shew it self by the Swelling of the Veins and by other signs. For there is evermore at the beginning a Plethora ad Vires viz. Such a fullness of Blood as the Strength of the Patient cannot mannage, unless a Quartan do follow some other long Feaver. But that Precept of *Galen* formerly mentioned in 1. *ad Glauconem*, is worthy of al Commendation, which saies that if the Blood which first comes away be Black and impure, that then the greater Quantity is to be taken away: but if it be Red and Pure, little must be taken, and the Patient must not be let Blood any more. The wel daies are fittest both for Bleeding and purging. Yet some let Blood upon the fit day, five or six hours before the Fit. which is not Ammis, because the Humors beginning then to be moued, are more easily drawn out. *Zacutus Lusitanus* saies, that it is very good to let Blood when the *Moon* is in the ful. For then, by reason of the *Moons* influence, that earthy Melancholick Humor doth Boyl and become more fluid and Apt to come away with bleeding. And he doth Testifie that many have by bleeding at that time been helped, and some perfectly cured, who could not by any other means receive Help. But Botallus contrary to the mind of *Galen* and al other Physitians, doth aver that frequent Blood-letting doth cure the Quartan Ague, yea when it threatens a Dropsie; and he endeavours to confirm his Opinion by reasons

Which notwithstanding is to be rejected as a Paradox, seeing the Refrigeration of

kes the Morbifick matter more thick and contumaci-

nd many are thereby Cured.

hich the matter of this

If

therefore a flux of the Hemorrhoids happens in such as have been accustomed thereunto, it must not be stopped. If it be too sparing, it must be furthered. As also if Nature seem to incline that way (which is known by itching of the Fundament, and by some drops of blood coming that way) the Blood must be made to come by application of Leeches.

But in such as have not been used to have their Hemorrhoid Veins opened, after bleeding in the Arm, it is good to let them blood in the Ankle Vein; by which oftentimes the Ague ceases; or at least that Bleeding, with other Remedies, will hasten the Cure; especially in Women whose Courses are stopt, or flow not sufficiently.

The opening of the Vein between the little Finger and the Ring Finger, called *Vena Salvatella*, is approved by the Antients, and many later Physitians, who said it cures the Quartan Ague. But very many others reject this Conceit, as being founded upon no reason, because the foresaid Vein is a Branch issuing from the Arm Veins. Yet being commended by others with many Experiments, I conceive it ought not wholly to be neglected. Some hold, it ought to be opened in the Conjunction of the Moon with the Sun; others when the Moon inclines two hours before the Fit, at three several times, in three immediately succeeding Fits, which in some persons hath happened very well.

After these first Evacuations, we must bend our study to concoct and prepare the Humors, with certain Juleps, compounded after this, or some such manner:

Take *Roots of Asparagus, Bruscus, Cichory, Bugloss steeped in white Wine, of each one ounce: Bark of Tamarisk, half an ounce: Leaves of Borrage, Bugloss, Ceterach, Maiden-hair, Fumitory, Germander, Ground-pine, of each one handful: Liquoris one ounce: the three Cordial Flowers, of each one pugil. Boyl all to a pint and an half. In the strained Liquor dissolve* Syrupus Bizantinus, *and Syrup of Maiden-hair, of each two ounces. Make thereof a Julep to be taken at four times, four mornings together. Which must also be continued many daies, for the Matter being contumacious, requires long preparation. Or if the Patient be nice, and squeezy, Broths must be made of part of the foresaid Simples, chusing such as are most grateful to the tast, whereunto, as also to the Juleps, Cream of Tartar may profitably be added.*

With these Preparative Medicaments, between whiles, Purgatives must be given; so that every third or fourth day the Patient must take a Purge, with this Caution, That as long as the Matter is very crude, we use mild Purgatives: and when Concoction begins to go well forwards, we must then give such Purgers as are a little stronger. Now the Materials for these Purgations are very wel known, so we need not reckon them up.

It is sometimes good to prescribe an Apozem both Purgative and Preparative, for four or five Doses, that a good part of the Morbifick Matter may be cleansed away. Which Apozeme may be made of the Materials of the foresaid Juleps, adding Purgatives thereunto. But if the thickness and contumacy of the Humors, with the cold distemper of the Bowels, do seem to threaten that the Disease wil be long and bring a Dropsie, we must then fly to such Medicaments as do powerfully cut and divide the said Humors; of which this following Apozeme may be compounded.

Take *of the five opening Roots steeped in white Wine, of each one ounce: Enula Campana, Gentian, Aristolochia, and Asarum Roots, of each half an ounce: Leaves of Germander, Agrimony, Hops, Borrage, Ceterach, Wormwood, and Centaury, of each one handful: Liquoris, and Raisons stoned, of each one ounce: Senna one ounce and an half: Epithimum one ounce: Agarick newly trochiscated three ounces: Ginger and Cloves, of each one dram: Boyl all to a pint and an half. In the strained Liquor dissolve Syrup of Cichory with Rhubarb five ounces: Troches of Capars, and Salt of Wormwood, and of Tamarisk, of each one dram. Make of all an Apozeme, for five Doses to be taken in the morning.*

In this Chronick and lasting Disease, an obstinate Perseverance is necessary, that the perpetual vicissitude of Medicines may concoct and purge away the Cause thereof. For this is in a manner the only Cause why many that have Quartan Agues remain uncured, because after the use of a few Medicines they grow weary, and wholly reject and disdain all the rest.

For a continual Use therefore, certain Purgatives are alwaies to be in a readiness. Which may be made in the form of a Magistral Syrup, or of Pils, or in any other form.

A Magistral Syrup may be made of the Materials of the Apozeme Aforesaid, adding a triple quantity of the Purgative Ingredients.

Pils for frequent use may be thus compounded:

Take *Aloes diligently steeped with the Juyce of Wormwood, half an ounce: Gum Ammoniack dissolved in Vinegar, and afterward thickened, two drams: choyce Mirrh a dram and an half: Gummy, Turbith, and Agarick newly made into Cakes, of each two drams: Diagridium one dram: Salt of Wormwood and Tamarisk, of each two scruples: Saffron half a scruple. With Oxymel simple, make all into a Mass of Pill-stuff. Let the Dose be half a dram, or two scruples, twice in a week.*

If the Patient be of an hot Constitution, these following Pills may be used.

Take

Take *Polypody of the Oak half an ounce: Roots of Asarum, and seeds of Broom, of each one dram: Cristal of Tartar one dram and an half: Flowers of Bugloss and Borrage, of each half a pugil. Boyl all in a sufficient Quantity of Water, Of the Liquor strained, and very well clarified, take half a pint: Juyce of odoriferous Apples very well clarified four ounces. Infuse therein Senna one ounce: Turbith and Agarick, of each three drams: Mace, Cloves, Cinnamon, and Epithimum, of each one dram. Let them digest together three daies in* Balneo Mariæ, *then strain and press them out. And add yet of Extract of Aloes made with Endive and Sorrel Water one ounce; Mirrh dissolved in Wine over the fire and strained two drams: Salt of Tartar one dram: Let all evaporate and thicken over a gentle fire, adding towards the conclusion, of the Pouders of Diarrhodon Abbatis, and Lætificans Galeni, of each one scruple: Salt of Wormwood and Tamarisk, of each half a dram: Extract of Saffron half a scruple. Make a Mass of Pill-stuf for the use aforesaid.*

Also a Purging Medicament very familiar, and most easie to prepare, but very profitable, may be made of three ounces of the Decoction of Wormwood, wherein two drams of Senna hath been infused, which must be taken now and then.

These Purging Medicines are wont to be given the day before the fit, because the Patients are then stronger than at other times. Yet many contend that they ought to be given before the fit, because the matter being agitated by the fit, is made more apt for Expulsion. This Opinion they underprop with the Authority of *Hippocrates* in his Book *de Affectionibus*, who would have a Medicine Purging downwards to be given at the beginning of the Fit. And although in *Galens* Judgment, that is none of *Hippocrates* his writings, but of his Son in Law *Polypus*; yet they conceive it ought not therefore to be of no Authority, seeing *Polypus* also was a very Learned Man, and frequent Experience confirms this Opinion; as the said Experience is set down by *Arculanus*, *Genitilus*, *Amatus Lusitanus*, and others, who have ordered that the Purging Medicament should be given four hours before the Fit. Which practice notwithstanding, hath need of much wariness and prudence in the Physitian, seeing the shaking fit intercepts the evacuation, and in the Ague Fit the Humors are moved with a motion quite contrary to that wherewith the Purge doth move them; by which means great disturbances may fall out in the Patients Body. Wherefore this course is not to be followed but in strong Bodies.

The Consent of Physitians is greater and more general touching the giving of Vomits in the beginning of the Ague Fits, because Nature is at that time more prone to that kind of Evacuation. Neither is it to be doubted, that a Vomiting caused in the beginning of the Fit, and at the same time often repeated, doth make the Disease gentler and shorter. The Materials of Vomitories are set down in our Cure of a Tertian. But in a Quartan Ague, Asarum is preferred before the rest, one dram being given in Pouder, in white Wine, and three or four times repeated.

In the Intervals of purging, Clysters must frequently be given, which do accustom Nature to expel the hurtful Humors into the Guts, and do by little and little bring away some of the morbifick matter contained in the Meseraick Veins.

The Disease continuing (as for the most part it is long and lasting) we must sometimes rest, and abstain from Physick a month, or thereabouts; that Nature in the mean time may gather strength, be wearied with continual use of Medicaments, and may set her self to concoct the morbifick matter. And afterward we must return to our Preparatives and Purgatives.

Howbeit, in a long Ague, we must not alwaies use the same Medicaments; lest Nature be over much used thereunto, and the Patient become weary of them. Also because from more gentle Aperitives and Purgatives, we must pass on to such as are stronger. Various sorts of Purgatives have been already propounded. And these following Aperitives besides the Apozems aforesaid, and the Juleps, may be used in the progress of the Disease, when the Signs of Digestion begin to appear.

Take *White Wine three pints: Enula Campane Roots three ounces: Bark of Capar Roots half an ounce: Tops of common Wormwood dried one ounce: Infuse them three daies in* Balneo Mariæ. *Keep all together without straining, and give of this Wine to the Patient two or three ounces in the morning, two hours before meat.* And these following Pils may be used either alone, or with the said Wine.

Take *Roots of Gentian two drams: round Birthwort Roots one dram and an half: Mugwort one dram: Briony dried three drams: Mirrh and Saffron, of each one dram: Asarum Roots two drams: Aloes one ounce: With Oxymel of Squils make all into a Mass of Pill-stuf. Let a dram be given every day by themselves, or a little before the taking of the Wine aforesaid.*

To these Pils, Steel prepared may profitably be added, if the Patient be able to walk after the taking of them. For the use of Steel in all Chronick Feavers is very profitable, because it potently opens Contumacious Obstructions, which are wont to foster those Diseases.

Or

Or to open and ſtrengthen at once, the following Electuary may profitably be preſcribed.

Take *Conſerve of Elecampane Roots, Conſerve of Wormwood, and Maiden-hair, of each one ounce: Preſerved Citron Peels half an ounce: Confectio Alkermes three drams: Preſerved Myrobalans, two: Pouder of Diarrhodon Abbatis two drams: Salt of Wormwood and Tamarisk, of each one dram: Saffron two ſcruples. With Syrup of preſerved Citrons, make all into an Opiate: of which let the Patient take the quantity of a Cheſtnut every morning, two hours before meat. Or if in the morning the Patient take ſome other Medicine, then may the Electuary be taken two hours before Supper.*

To the ſame intent is commended as a moſt excellent Remedy, the Extract of Germander mixt with Salt of Tamarisk made into Pils.

Add hereunto, Diſcuſſers, and Diaphoreticks, which are very uſeful to diſcuſs the reliques of the declining Diſeaſe, when ſigns of Concoction appear. For they do not only diſcuſs the ſaid reliques, but they do likewiſe correct that diſtemper which is bred by ſo long a Diſeaſe, and amend the ill habit of the Body; and ſtrengthen the Stomach, Liver, and other Bowels, weakened by the length of the Diſeaſe. Among theſe Medicaments, Venice Treacle challengeth the firſt place, being by older and later Phyſitians commended to this Uſe. It is given one hour before the fit, one dram in weight, with Wine, or in a Decoction of Germander. Or if its heat be feared, it may be given with a Decoction of Agrimony, or with the Juyce or Water of Plantane. This Medicine muſt be repeated before divers Fits one after another. It may alſo be given in the mornings for ſome daies together on the well-daies. But a little before the fit, it operates happily, becauſe it hinders the encreaſe of cold, and doth more commodiouſly diſcuſs the Humor, which is cauſe of the fit, now beginning to work in the Veins, and by this means it diminiſheth the fit, and if the morbifick matter be little, takes it quite away. Here, notwithſtanding, great Caution is to be uſed, leſt Treacle, or other ſuch hot Medicines, ſhould be given when the Humors are yet crude; for they diſſolve the putrid Humors, from whence ariſeth a confuſion in the Body, and an encreaſe of the Ague Fits; ſo that a ſingle Quartan comes to degenerate into a Double, and Triple, yea, into a Continual Feaver. As it happened to *Eudemus* the Peripatetick, as *Galen* relates in *Lib. de Præcog. ad Poſth. Cap. 2. & 3.* in whom was a ſingle Quartan, the Phyſitians of *Rome* having given him Treacle unſeaſonably, was changed into a Triple. Howbeit, afterwards when the Signs of Concoction appeared, *Galen* gave him of the ſame Treacle, and cured him.

Among other Diaphoreticks, ſome commend the Roots of China, and Salſa parilla, whoſe firſt and ſecond Decoction being given twenty daies together, doth ſomtimes cure contumacious Quartans. But they work more effectually, if with the Primary Decoction, Purgatives be mingled.

Other Remedies are alſo given before the Fit, which are accounted ſpecifical, and appropriate to this Ague, and being given towards the declination, they do very often keep back the fits, and cure the Quartan. The chief of this ſort, are theſe which follow:

Take *Green Leaves of Plantane one handful: Green Sorrel half a handful: Vinegar and Treacle, of each three ounces. Diſtil them, and let the Patient take of the diſtilled Liquor three ounces, half an hour before the fit.* Or,

Take *Sugar-candy three drams: Ginger two drams: Camphire one dram. Make all into a Pouder. Give one dram in warm Water.*

Ten Grains of Saffron in pouder, given with white Wine before the fit, doth much weaken the ſame.

Seed of wild Rue given before the Fit in white Wine, cures.

Heurnius aſſures us that with the following Troches, many have been cured, even in the Winter, with once taking.

Take *Seeds of Rue, Parſley, Mirrh, and new Andromachus Treacle, of each one dram: Opium half a ſcruple: Make all up into little Cakes or Troches. And let the Patient take one of thoſe Cakes in Water, before the fit. Narcoticks do indeed much abate the fits; but unleſs the greateſt part of the morbifick Humor have been before abated, and the Obſtructions much leſſened, they may do hurt, becauſe they may retain the vitious Humors in the Body, and breed Obſtructions, and other worſe Diſeaſes. But given in a ſmal quantity, and mingled with things which open and cut, as in theſe Troches, they can do leſs hurt.*

Alſo to reſtrain the Fit, gentle Purgers are profitably given an hour before it comes, which do revel the Humors, more by ſoliciting and provoking Nature, than by their purging. To which intent, ſuch as theſe which follow are preſcribed.

Take *Senna, Polipody of the Oak, Time, Epithimum, of each one dram: Borrage flowers a pugil. Make a Decoction to three ounces. Give it an hour before the Fit.*

Or,

Take *Senna three drams: Turbith one dram: Cinnamon half a dram: Saffron and Ginger,*

of

of each ten grains: Sugar, the weight of all the rest. Make of all a Pouder, divide it into three parts. Give the Patient one part before the fit, in white Wine.

Quercetanus in his Dispensatory, doth exceedingly commend *Camillus* his Pils of Sagapenum; of which he gives only one at the beginning of the fit, for divers daies together; and a little after he anoints their Back-bone with a Liniment composed of Treacle, *Aqua vitæ*, Oyl of Bays, or of Spike. And two or three hours after the Pils are taken, he gives Broth with opening Roots, Borrage, Buglos, Time, and an odoriferous Apple boyled in it.

Now these anointings of the Back-bone, are very good to mitigate the cold fit, and must often be used, although the foresaid Pils are not used. For they are frequently useful, when the shaking fits are vehement and importunate. And these Anointings are made, not only with the foresaid, but with very many other Medicaments; as with Oyl of Dill, Chamomel, Orice, Costus, Rue, the Peppers, and other hot things, with *Aqua vitæ*, Treacle, Cloves, Castoreum, Mustard seed, Pepper, and other things mixed therewith. Now these Liniments are more effectual, if the back-bone be anointed therewith by the fire-side, an hour before the coming of the fit; and the sick party be presently thereupon conveighed to a hot bed, and hot Tiles sprinkled with odoriferous Wine, and wrapped in Linnen Cloths, be applied to the Soals of the Feet, and Palms of the Patients Hands.

While the aforesaid Medicaments are used, a special care must be had of the Spleen, because that part is alwaies affected in this Disease: And therefore those Medicaments which ordinarily are prescribed for Obstructions of the Spleen, viz. Fomentations, Liniments, and Plaisters.

Yea verily, and sometimes a Bath of luke-warm Water, after many Evacuations have been celebrated, is good, not only to mollifie the Spleen, but also to moisten the whol body, and to further the Coction of the morbifick matter. The bath may be used on the daies of intermission, giving diligent heed that it be no other than luke-warm. For if it should be hotter, it is to be feared, lest the Humors being thereby dissolved, should run on a sudden into divers parts of the Body, and breed dangerous, very dangerous Imposthumes.

Finally, Such things as are wont to be laid to the Wrists, are not to be neglected, seeing Authors of good account do make some reckoning of them. For *Rondeletius* affirms, That he hath used this following Medicament, with great success.

Take *Leaves of Elder, Sage, Doves-foot, Rue, of each half a handful: Marigolds a third part: a handful of Salt, and a little Wine. Beat all together, and apply to the Wrists before the Fit.* Crato *applies the Roots of Nettles being beaten and moistened or steeped in Vinegar, to the Arteries of the Wrists, and of the Feet. And* Sennertus *relates that a certain Citizen having had a Quartan Ague the whol Autumn and Winter, and at last being afflicted with most sharp pains in his left shoulder, by the perswasion of a certain woman, he applied Crowfoot to his wrist, which raised a Push, and freed him both from his pain and Feaver.*

A Bastard Quartan is cured with the same Medicines in a manner, which have been propounded for the Cure of a Tertian; adding to the Decoction of Juleps and Apozems, such things as do peculiarly regard Melancholly adust. Whereunto may be added al the more temperate, and less heating Medicaments, which have hitherto been propounded for a Legitimate Quartan.

In the beginning therefore it is good to use Borrage, Buglos, Fumitory, Hops, Sorrel, Cichory, Ceterach, Scolopendria, Agrimony, and Odoriferous Apples. Whose Decoctions, distilled Waters, and sometimes their clarified Juyces may be prescribed in the form of a Julep, an Apozeme or Magistral Syrup.

But in the Progress of the Disease, it will be good to add unto the Simples aforesaid, the Bark of Capar Roots, of Tamarisk, Enula Campana, Polypodie, and Wormwood.

While the Patient useth these Preparatives, Purgatives are frequently to be interposed; which are to be given the Day before the Fit, and to be repeated twice a Week. To which Intent Various Forms may be prescribed. But for such as are Delicate, a Laxative Ptisan, *Syrupus de Pomis Saporis*, or the Broth of a Chicken, qualified with Borrage, Buglos, Pimpernel, and three drams, or half an ounce of Senna, may profitably be given.

Blood-letting in the beginning must not be omitted, and to such quantity of blood must be taken away, as shal correspond unto the Quantity and Quality of Blood, and to the Age and Constitution of the Patient.

If the Disease prove long, when the fervor of the blood is abated, Vomits may profitably be administred; especially to such Patients as are troubled with Stomach-sickness and Vomitings in the beginning of their Fits. Among Vomitories good for a Quartan, Asarum (as was said before) is the principal, being given to the quantity of a dram in white Wine, and divers times repeated, if the Disease shal not after once or twice giving, be discussed.

Hereunto

Hereunto ad fomentations and liniments applied to the parts under the ſhort ribs, to correct the evil diſpoſition of the bowels (which continually affords new matter for the fits) and to ſoften and make thin the faſt, ſetled and impacted Humors: which may be preſcribed after this manner.

Take *Roots of Marſh-mallows, of Lillies, of Enula campana, Barks of capar Roots, and the middle rind of Tamarisk, of each one ounce; Leaves of Mallows, of Marſh-mallows, of Pellitory of the wall, of Borrage, Bugloſs, Pimpernel, Wormwood of each one handfull; Lin-ſeed and Parſly ſeed, of each an half ounce; flowers of Chamomel, Melilot and Dill, of each one pugil: make a decoction in three parts of water, and one of white wine added towards the end. With which decoction foment the Hypochondria, twice a day, far from meals.*

Take *Ointment of Marſh-mallowes, one ounce and an half; Oyl of Lillies, Chamomel, Roſet and Wormwood, of each an half ounce: make al into a Liniment, which muſt be uſed after the fomentation.*

Or Oyls alone may profitably be applied to the ſame Parts, laid on with wool.

And finally a bath of warm water either alone or with emollient and qualifiing things boiled therein, or of Barly and Almonds as is uſual, will be very convenient to cure this diſeaſe. For it corrects the diſtemper of the bowels, rectifies the heat and dryneſs of black Choller, mollifie that which is hard, opens the paſſages and widens them, and digeſts crude Humors. Wherefore the frequent uſe thereof will be moſt convenient, uſing the caution before ſpecified.

Now the operation thereof will be exceedingly advanced, if preparative Medicaments and ſuch as open obſtruction be given to the patient, upon entrance into the bath. Among which the chief is a decoction of Wormwood and Enula Campana, which is exceeding good to digeſt all contumacious Humors. provided the over great heat of the Bowels, do not diſwade the uſe thereof. In which caſe it may be tempered by the mixture of other things fore recited.

And while theſe things are doing, gentle purgations muſt be repeated, as we adviſed before. And when the diſeaſe doth indeed decline, thoſe ſpecified medicaments propounded in the Legitimate Quartan, may here alſo be brought into uſe.

In the whol courſe of the diſeaſe we muſt be carefull of the Breaſt, leaſt a Conſumption betide the ſame, for the Humor offending in this Diſeaſe is of a corroding quality

Chap. 6. *Of Compounded or Complicated Feavers, and particularly of a Semi-Tertian.*

GALEN in his ſecond Book *de Criſib.* cap. 7. and 9. and in his ſecond Book *de Differ. Feb.* Cap. 7. and *Avicen. Fen* 1. *Lib* 4. *Tract* 4. Cap. 16. Do propound many compoſitions of Feavers. Namely when putrid Feavers are compounded with non-putrid, as when an hectick is joyned with a putrid; or of a putrid with a putrid, which is done many wayes viz. Either continuall Feavers being complicated with continuall or intermittent with intermitent, or continuall with intermitent.

The Compoſition of two continual Feavers, is a thing controverted among authors, and a man ſhall hardly obſerve it in the courſe of his practice.

An intermitting Feaver or Ague is complicated with another intermittent, either of the ſame kind, or different: compound intermittents of the ſame kind are a double and triple Tertian, and a double or triple quartan, which have been expounded in their proper places. Of ſeveral kinds are when a tertian is compounded with a Quotidian or quartan; which alſo is very rarely ſeen in Practice.

Intermittents are complicated with continuals two waies viz. An intermittent tertian with a continual Quotidian, or a Quotidian intermittent with a continual tertian. and each of theſe is termed a Semi-tertian, conſtituting Species or ſorts thereof.

Yet that is properly and truly a Semi-tertian which is made of an intermitting Tertian and a continual quotidian: and conſequently is cauſed from choller putrefying without and flegm putrefying within the veſſels. By *Hippocrates* and *Galen* in 1 *Epidem.* it is named *Horrifica*, or the ſhaking Ague becauſe it cauſes the patient to ſhake, not only at the firſt coming of the fit, but in the whol courſ of the diſeaſe and eſpecially in the beginning and augment, two fits being met and joyned in one, viz: Of the tertian and quotidian Ague, with many reduplications, which are nothing elſe but unequal ſhaking and ſhivering motions, returning divers time in one and the

same Ague Fit, by reason of the mutual fight of the two Feavers; in which, if Flegm overcome, there will follow shiverings, and coldness of the extream parts. And then again, when Choller doth vanquish, the Body becomes warm, and the Feaver seems to tend towards the vigor; whenas flegm again getting the better, they are again brought into a cold and shivering condition; and this Contention is wont to last til the Feaver comes to its height. Hence it is that those shaking fits come only every other day, viz. When the fit of the Tertian Ague is upon the Patient, being joyned with the Quotidian.

But while the Quotidian alone is present, there is wont to be no shivering Fit. Yet we must take notice, That there are some Malignant Feavers, which without a commixion of a Tertian and Quotidian, without that same fight of Choller and Flegm, do shake the Patient; in which the Shiverings come from sharp Vapors, and malignant, which do arise out of the corrupt Matter of malignant Feavers, and do beat upon, and pull the sensitive parts, and nip or twitch them as it were.

Now this Semi-Tertian properly so called, is either exquisite, wherein an equal portion of putrefying Choller and Flegm is redundant, such as hath been now described; or it is a bastard Semi-Tertian, which is again two-fold: For either it hath Choller abounding, or Flegm. In the former there are more Symptoms of a Tertian; in the latter of a Quotidian. And so if Choller abound, the whol Feaver is more horrid, and sometimes it hath a shaking fit accompanying the same; also it proves more fervent, and some portion of Choller is voided forth by vomit, stool, or sweat. But when Flegm prevails, a more vehement cold doth possess the extream parts of the Body, and there are few shiverings; and the pulse it more and longer depressed, and the fit is longer before it grow towards its height, and remains in its consistency a long time; yet doth it cause no great thirst, nor burning.

This Feaver is known by what hath been said thereof, being continual, and cold, with many reduplications, and very great Symptomes. Because it comes every other day with a shaking cold fit; but upon the even dates it comes only with a coldness in the extream parts of the Body. The Urines are crude, thin, and without color; sometimes troubled, with no Sediment, or that which bodes no good. The Pulse is frequent and unequal. The Differences are known by the Signs of more or less of Choller and Flegm, propounded.

As for the Prognostick of this Feaver, it is a dangerous Disease, and therein the Stomach and Nervous parts are very much affected. And it is attended with dryness of the Tongue, Thirst, Swooning, Watching, and sometimes with Ravings, and dead Sleeps. *Hippocrates* reckons it among acute Diseases because of the Choller; and among Chronick Diseases because of the Flegm, in 1. Epidem. And *Avicenna* saith, That it lasts sometimes seven months, and sometimes ends in Chronick Diseases, and an Hectick.

The Cure of this Feaver is to be taken from what hath been formerly said of the Cure of a Tertian, and a Quotidian Ague; and seeing it is continual, it must be handled with the same Method which was set down in the first Chapter of this Section, as common to all putrid continual Feavers. So that when Choller chiefly bears sway, we must use most of those Simples which respect Choller; and when as flegm prevails, we must principally use such things as do prepare and purge that Humor. And finally, When both Humors are equal, the Remedies proper to each must be used in equal proportion likewise.

SECT. III.

Section III.

Of Peſtilential Feavers.

The Preface.

ALL Authors (very neer) who have writ of Feavers, do diſtinguiſh a peſtilential Feaver from a malignant, and doe treat of each of them ſeverally in divers Chapters; ſo that by the name of a peſtilential Feaver they doe underſtand the true Peſtilence or Plague; and by a malignant Feaver, they mean that which is commonly called the ſpotted Feaver, or ſuch a Feaver which though it be epidemical and contagious, yet it is not ſo dangerous but that more live than die of it: whereas the true eſſence of the Plague conſiſts in this that more die thereof than recover. But forasmuch as theſe Feavers differ one from another only according to the greater or leſſer degree of malignity, and muſt be cured with the ſame Medicaments; we have thought it more convenient to include al theſe kind of Feavers in one Chapter, and to handle them all under the name of Peſtilential Feavers. and conſequently this laſt Section ſhall conſiſt of two Chapters, the firſt of which ſhall treat of the Peſtilentiall Feaver; and the later of the Meaſles and ſmall Pox: For ſeeing a Malignant Feaver does allwaies attend them all Authors doe juſtly treat of them in this place.

Chap. 1. *Of a Peſtilential Feaver.*

THat Feaver is termed Peſtilential, which does afflict Nature not only by a bare diſtemper, or by heat ariſing from putrefaction, but alſo with a Malignant and venemous quality. This is wont to be for the moſt part Popular and Epidemical; ſo that many are at the ſame time ſick thereof: yet ſomtimes it is ſporadick or ſingle afflicting but here and there one, which ariſes from evil Humors that have attained a venemous quality.

It is likewiſe Contagious, ſo that it may be caught not only by means of the common Cauſe, Viz. Corruption of the Air or Diet; but alſo by Converſing with thoſe that are ſick.

It is alſo commonly called a Malignant Feaver, whereas many diſeaſes are termed Malignant by reaſon of their evil and cruel ſymptomes in which no venemous quality is found, in which alone the eſſence of a Peſtilential diſeaſe conſiſts.

In what Feaver ſoever therefore, this ſame venemous quality is found, whether it be a diary, an hectick, or a putrid Feaver, it is rightly termed Peſtilentiall: although a diary and hectick are much controverted, touching which conſult the Authors.

Now this ſame venemous quality ariſeth from the corruption of Humors, which conſiſts not in a bare change of the temperament, or in ordinary putrefaction, ſuch as is found in putrid Feavers; but in a deſtruction of the whol Nature and Eſſential ſubſtance of the ſame Humors. As Wine when it is turned an inſipid taſtleſs Liquor, is totally and eſſentially corrupted; but when it becomes vinegar, it is ſaid ſimply to putrefie.

And a Peſtilentiall Feaver differs from the Plague as a ſpecies or ſort differs from the genus or kind, becauſe there may be a Peſtilence without a Feaver, as *Hippocrates* hath taught us in his third Epidem. in many places; and alſo *Galen* in his Expoſition of the ſaid Book. and in his ninth Book, *de Medic. Facultatib. Cap. de Terra Samia.* And this is ſutable to Reaſon; forasmuch as the venemous Quality is not neceſſarily attended with putrefaction, which is the Cauſe of a Feaver. For that ſame venemous qualitie may be produced in the Humors, by a perfect corruption of their ſubſtance, and introduction of a new form, of which that venemous qualitie depends. And certain it is, that ſo oft as a new form is introduced, the former is corrupted; unto which mutations there are requiſite preparatorie alterations, but not putrefaction: ſo that Humors may undergo ſuch a corruption without putrefaction; but becauſe the Humors of our body are very liable to putrefaction, they can rarely undergo ſo great a corruption, without the Intervention of putrefaction likewiſe: wherefore thoſe Peſtilences are very rare, which are not accompanied with a Feaver: Yea verily and by an intenſe, profound and ſordid (as they are wont to ſay) putrefaction, ſuch a Corruption as that of the Plague is wont to

be raised. So, many Feavers, which at first were not pestilentiall, if by the Ignorance of the Physitian or negligence, the disobedience of the Sick, or the fierceness of externall causes, they have been mis-handled, the putrefaction becomeing more intense, they turn in the end to malignant and Pestilentiall Feavers. And that corruption does often precede Putrefaction is collected from such as are infected with the Plague by contagion; in whom a malignant, and venemous qualitie is first transfus'd, and therewith the Humors are corrupted, which corruption is followed by putrefaction, whence it comes to pas that such as have the Pestilence have sometimes no feaver for the first daies of their ilness; but afterwards the Feaver begins to shew it self, when putrefaction is bred; some such things we see in a part that is affected with a Gangrene, which is first corrupted, and afterwards puertfied.

A pestilentiall Feaver is caused, when the Humors being corrupted and haveing attained a venemous quality, doe come to putrefie: And so it affects the Heart by those two meanes Viz. By a putrid heat and a malignant qualitie.

Now this corruption of Humors, is not alwaies after one sort, but somtimes it is more intense and somtimes less and according to its divers degrees, the venemous qualitie arising therefrom is more or less pernicious; from whence proceeds the greater or less Malignity of Feavers. And hence arose that common distinction of Pestilential Feavers among Physitians, into a Pestilential feaver simply and properly so called and into a Malignant Feaver; calling that a pestilentiall Feaver properly so termed wherein is the true Plague; having this peculiar, note or character, that more die than live and recover; and calling that simply a malignant Feaver which being less pernicious, more live than die of it.

The differences of a Pestilentiall Feaver are taken either from the matter wherein that venemous Quality is produced; or from the place wherein the said matter is contained: and so they follow the difference of putrid Feavers, which in respect of the matter of putrefing are divided into the Feaver *Synochos*, *Tertiana*, *Quartana*, and *Quotidiana*, according as the matter putrefiing it, Blood, Choller, Melancholy, or Flegm. And in respect of the place wherein the Humors putrefie, they are divided into continuall and intermittent; according as the aforesaid Humors are lodged within or without the veines: even so pestilential Feavers, some are termed Synochi, others Tertians, Quartans or Quotidians; some continuall, others intermittent: although *Hippocrates* hath said in the 43. Aphorism of the 4 Section, That intermitting Feavers are void of danger however they intermit, which only is to be understood of such as are void of all malignitie; for we see almost every year (in our country at least) tertian intermittent Feavers, which being extreamly malignant, doe at the third or fourth fit kill the patients: others which bring them into great danger, especially by the crueltie of the Symptomes.

There are other Differences of a pestilential Feaver taken from the intensnes of their degree or Remissnes; namly, as some are greater, other lesser, some partake of greater malignitie some of lesser. They are said to be simply greater or lesser, according as the Putrefaction is greater or less, or as the preternatural Heat arising therefrom, is more intense or remis; more malignant or benignant, according to the greater or less intension of the venemous quality Hence it comes to pass, that sometimes a pestilentiall Feaver hath extream putrefaction, and malignancy at the highest; and then it is wont to be most fierce, and therein in regard of the malignancy the vital faculty is exceedingly afflicted; and in regard of the extream putrefaction, the other faculties are likewise hurt, and cruell symptoms follow thereupon. But sometimes in this Feaver the putrefaction is very high, and the malignant qualitie remis; and then the Feaver is troublesom by reason of the putrefaction; but the vital faculty is less afflicted. Contrarilie somtimes Putrefaction is little, but the malignant quality intense: and then the Feaver in regard of putrefaction shews no such bad symptoms & seems remis; yet the strength of the patient is more than ordinarily weakned. For somtimes the putrefaction is so remis that it is in a manner none at all; but the malignant quality in a very high degree: and then we have a Feaver, which seems neither to the Patient nor by-standers any thing troublesom; but it seems at first sight mild, as mild can be, when as indeed and intruth it is very mortall; for when the malignant qualitie is increased, the patients strength is dejected, and the Heart wholly overwhelmed: and this kind of Feaver doth not only deceive the Patients and by-standers, but somtimes the Physitians themselves are thereby cheated; whiles there being no sign present either by crudity or pravity of Humors, the Pulse being in a manner in it's natural state, and the heat of the Body at first appearance seeming mild and gentle, it leads unto destruction. Som such thing is likewise wont to happen in the first difference, viz. When it is joyned with the highest degree of malignity: for putrefaction being by convenient medicaments subdued, and the signes of recovery appearing; death notwithstanding somtimes ensues by reason the malignant quality did remaine uncorrected.

And finally the differences of a Pestilent Feaver are taken from its adjuncts, and they are very many

many and moſt evident, for there is no evil ſymptom, nor kind of deadly diſeaſe which is not ſomtimes joyned with this Feaver. The ſymptomes are Head-ach, Watchings, Raveings, Dead ſleepes, Thirſt, Stomach-Sickneſs, and Vomiting, want of Appetite, Swooning, Fainting, Hiccoughing, Unquietneſs Looſneſs, Sweats and ſuch like, which are common alſo to other kind of Feavers.

But there is one Symptom proper and peculiar to a peſtilential Feaver, which doth not happen in other Feavers; *viz.* Purple Specks, or Spots on the whol Body, but eſpecially in the Loyns, the breaſt and back, like unto Flea-bitings for the moſt part; which the Italian Phyſitians name *Peticulæ* or *Petechiæ*; and theſe Feavers which have theſe Symptoms, are commonly named *Purpuratæ* or *Petechialis*, Purple or Spotted Feavers. For theſe Purple Spots do not appear in all Peſtilential Feavers; but when they appear, they are a moſt certain Sign of a peſtilential Feaver. Now we call them Purple Spots, becauſe they are for the moſt part of a Purple colour. Yet they are many times of a violet colour, Green, blewiſh, or black, and then they are far worſe, and do ſignifie greater Malignity. And although theſe Spots are for the moſt part like Flea-bitings: yet they appear ſomwhat greater: So as to repreſent thoſe black and blew marks which remain after whipping, and then they are worſe. And ſomtimes they are very large, and poſſeſs whol Members, and a great part of the body; *viz.* the Arms, Thighs, and back, and then the parts appear tainted with redneſs; which in few hours oftentimes vaniſheth away, and then returns again, as it were by Fits, whilſt the Feaver undergoes it's Fits, or Exacerbations; wherein the blood boiling, doth ſend forth it's thinner Exhalations to the ſurface of the Skin, by which the Skin is not ſwelled; but only infected with a red Color. Oftentimes notwithſtanding, by theſe Ebullitions, the Skin is in divers parts puffed up with a certain redneſs: and makes certain broad and ſoft tumors in the Skin, which in a few hours vaniſh away, and are commonly called Ebullitions of the blood. In theſe, and the aforeſaid, there is alwaies ſome Malignity, but ſo light, that it threatens no danger; unleſs in the progreſs of the Diſeaſe it prove more intenſe. Now the Spots aforeſaid like to Flea-bitings, do differ from thoſe Puſhes, which are wont alſo ſomtimes to appear in theſe Feavers, and are mentioned by *Hippocrates* in *Epidemiis*, which have an Head, and are a kind of Tumors, which come ſomtimes to Suppuration, or Exulceration. But the Purple Spots, have (as was ſaid) no eminence or Head, and were unknown to the Antients, being deſcribed only by later Phyſitians of after Ages.

As to thoſe Diſeaſes which are joyned to a Peſtilential Feaver, we may affirm what hath been ſaid of the Symptoms; *viz.* that many deadly Diſeaſes are joyned with theſe Feavers; namely, Phrenſies, Squinzies, Pleuriſies, Inflamations of the Lungs, Inflamations of the Liver, bloody Fluxes, and very many more. But the chief Diſeaſes which ſhew themſelves in a Peſtilential Feaver, are two, *viz.* a Peſtilent *Bubo*, and a Carbuncle, which declare the venemous quality to be in the higheſt degree, and are not found but in the true Peſtilence, and are wont commonly to accompany the ſame: So that the common People call them by the very name of the Peſtilence.

The Cauſes of Peſtilential Feavers, are ſome Internal, others External: and the Internal are ſome Immediate, others Mediate.

The Immediate Cauſe of this Diſeaſe, as we hinted before, is a corruption of the Humors, joyned with putrefaction. From the Corruption they acquire an evil and venemous Quality, and from Putrefaction the Feaver is bred.

The Mediate Cauſes are a Plethory, Cacochymie, and Obſtructions. Now we underſtand ſuch a Plethory, or fulneſs of Blood; not as diſtends the Veſſels, but ſuch at leaſt as the ſtrength of the Patient cannot maſter, which not being regulated by Nature, doth eaſily undergo Corruption, and Putrefaction. Now a Cacochymie, or abundance of evil Humors, is eaſily corrupted and putrefied. Finally, Obſtructions are apt to breed all kind of Feavers: foraſmuch as Humors being cloſe ſhut up in an hot and moiſt place, wanting free tranſpiration, do eaſily putrefie. The Internal Mediate Cauſes, are by Authors commonly called *Morboſus Apparatus*, a ſickly Diſpoſition of Body; and the efficacy thereof is ſo great, that it alone is ſomtimes ſufficient to produce a gentle Peſtilential Feaver, ſuch as is commonly called a Malignant Feaver ſimply, or a Purple Feaver, without the Intervention of any External or common Cauſe. For we oft-times ſee, when the year is not Peſtilential, and there is no Epidemical ſickneſs abroad, ſome perſons through the evil Condition of their Humors, fall into ſuch Feavers, which are accompanied with many Symptoms of Malignancy; yea, and with other Purple ſpots.

Concerning the point of Obſtruction, we muſt obſerve, that it doth neceſſarily concur as the principal Cauſe in Malignant Feavers, which proceed from Internal Cauſes, and are not Epidemical: but that Epidemical Feavers, which proceed from a common Cauſe; viz. A Peſtilent conſtitution of the Air, or are gotten by Contagion, have not neceſſarily any Obſtructions for their Cauſe. For the venemous quality is received only by breathing in the corrupt Air, or only by Infection from others, by which venemous Quality the Humors of the Body, declining from their own proper Nature, do of their own accord putrefie. For even as Fruits that will not keep, and other things apt

to corrupt, though they have never so much freedom of the Air, yet cannot be preserved from Corruption: Even so the Humors, when they have conceived that pernitious Quality, are apt to Corruption: so that though there be no Obstruction present, they necessarily fall into a Putrefaction, and a Feaver. Howbeit, Putrefaction being by this means brought into the Humors, when Nature doth no longer rule them, they are wont for the most part to breed Obstructions, whereby the Feaver is augmented; so that in these Feavers Obstructions may Concur, which though in the beginning they were not the Cause of the Feaver, yet do they follow the same, being cherished by the Causes of the Feaver, and being infected with Pestilential Venom.

The External Causes of Pestilential Feavers, are the six Non-natural things, which as they are necessary, so do they necessarily alter our bodies: and when they are far departed from their Natural condition, they breed in us Malignant and venemous Qualities. Among these, the Air holds the chief place: which as it is a most common Cause, so Diseases that are common doth for the most part proceed from some fault thereof.

Now the Air becomes vitious and hurtful to men, for the most part by a threefold means. First, If it be not blown through with wholsom Winds. Secondly, If it be polluted with the Infection of putrid and stinking Exhalations. Thirdly, If by an excess or prepostrous condition of the first Qualities, it doth so alter Men, that thereby evil and malignant putrefactions of the Humors be ingendred.

The first is evident enough. For if the Air be not blown through, and stirred with Winds, it is easily corrupted. Whence *Hippocrates* in the 3. Epidem. Describing a most grievous Pestilential constitution, saith; This year had no Winds.

And the Second is most effectual and frequent, viz. When Putrid, Filthy, and malignant vapors are mingled with the Air, and do infect the same, which is wont to arise from divers things, viz. Lakes, Pooles, Fish-ponds, and other quiet and still Waters, or such as are full of mud, or wherein Flax, or Hemp have been steeped. Or from the stink of Privies, Dung-hils, and nasty Allies. Or from the unburied bodies of such as have bin slain in battle. Or out of Dens or Caves (wherein the Air having been long shut up, hath gained a filthy putrefaction) being opened by an Earth-quake, or some other Casualtie.

But the third Reason, which consists in the Excess, Inequality, or Prepostrous condition of the first Qualities, may happen divers waies, and especially when there is a great excess of Heat and moisture. For those Qualities, when they are extranious and adventitious, and encreased above their Natural condition, they are the principles of putrefactions. Hence a Southern Wind lasting long in the Seasons of the year, according to *Hippocrates* in Epidem. was the principal cause, of all Pestilential Feavers there described.

But a dry Constitution of the Air, though in the Opinion of *Hippocrates*, it's more wholsom than a moist; yet because al excess of Qualities, is hurtful to our Nature; certain it is that a very dry Constitution of the Air, more than ordinary, doth produce Pestilential Feavers; especially if it be joyned with Excessive Heat. A cleer example wherof we have in *Livy* in the first Book of his History Decad. 4. viz. How by over great dryness, a Pestilence happened at *Rome*, because there had been little or no Rain that year: neither was there scarcity of Water from Heaven alone; but the Earth was scarce able to continue her Springs. Now this dry Constitution doth therefore Cause the Pestilence, because the Humors being above measure burnt & dried up, degenerate into the Matter of Biles, Carbuncles, and consequently of a Pestilential Feaver; and being very much thickned, they produce grievous Obstructions; wherby in a matter otherwise wel disposed thereunto, Malignant putrefaction is easily bred. Add hereunto, That this immoderate dryness of the air, doth corrupt the Corn, hindring it from attaining its due maturity. For it brings the Corn sooner out of the Earth, and it gives it at first plentiful nourishment, and afterward Scanty, whereby the Corn is unequally digested, being Burnt without, but within quite Raw; like Flesh scorched with an over violent Fire: and so it proves a Cause of indigestion, and divers Crudities.

It is proved also from *Hippocrates*, That immoderate Cold doth produce a Pestilence 1. Epidem. Sect. 3. tempest. 1. where he saith. *In the Country of* Thasus, *a little before the appearance of Arcturus* (a Star or Constellation) *and whilst He appears, the North Wind blowing, there are many and great Rains.* In which places he fetches the Cause of a Pestilential Season, from over great Coldness. Also we may read in Livy Lib. 5. Decad. 1. That a Pestilential Season was caused by vehement Cold; in these Words. *The year was remarkable for a Cold, and Snowy Winter, so that the Wayes were stopped up, and the River* Tyber *was unnavigable. So sad a Winter was followed by a grievous and Pestilential Summer, Mortal to all kind of Living-Creatures; whether it were occasioned, by the sudden change of the Air from one extream to another, or by some other means.* And the reason of this Accident is at hand, viz. That by reason the Pores of the Skin are closed up by the extream Cold, so that the vapors cannot steem forth so as naturally they should, there follows the greater putrefaction, and more grievous poison; whereupon follows more dange-

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rous feavers, than in the Summer, in which the condition of the air, although in ſome ſort it gives beginning to the Diſeaſe, yet doth it make the pores and paſſages wider, Through which that which putrified does exhale, and the natural and preternatural evaporations doe readily breath out.

Inequality of the Seaſon is wont alſo to be the Cauſe of this kind of Feavers; viz. when it is ſometimes Hot, ſometimes Cold; ſometimes wet, ſometimes dry in a ſhort time; or when theſe various ſeaſons doe endure longer one after another. As when after long vehement Hot weather, a freezing cold claps in, or after long rains, an extream drought ſteales upon us, or contrary-wiſe. Or when after a prepoſterous faſhion, it is hot in Winter and cold in Summer. Now theſe inequalities of Seaſons may help the production of Peſtilential Feavers; becauſe in them, the humors are exceedingly diſturbed, by which means they arrive unto an evill condition, fat from their natural ſtate and fit to produce malignant Diſeaſes eſpecially in thoſe bodies which during the Courſe of the Seaſons aforeſaid, by diſorderly Courſe of Diet and liveing, have contracted either a Plethory a Cacochymy or ſome notable obſtructions.

To this kind of Cauſes may be added the malignant Influence of the Conſtellations, which by changeing the Ayr, are wont diverſly to affect the Bodies of Liveing Creatures. Such they ſay are, the Conjunction of the ſuperior Planets, *Saturn*, *Jupiter*, and *Mars*, in humane Signes, ſuch as *Virgo* and *Gemini*, and eſpecially when *Mars* is Lord. Which do bring Diſeaſes in otherwiſe then by change of the Ayr, ſo far as to corrupt the Nature and ſubſtance thereof. And that change is wrought two waies; and is by the manifeſt qualities, as when by the Influence of the Stars the ayr is ſo long and ſo far changed by exceſs of the firſt qualities of Heat, Moiſture, Cold and Dryneſs, that at length it's proper Subſtance becomes vitiated the other is by occult qualities, when by the ſecret power of the Stars, without any notable exceſs of the firſt qualities, the ſubſtance of the ayr is ſo changed, that it receives a certain degree of corruption contrary to our Life. Touching the firſt, no man doubts, ſeeing it is clear by Common Conſent of Phyloſophers that inferior Bodies are governed by the Heavenly Conſtellations. And as the alterations of the Ayr, which happen in the four ſeaſons of the yeer, do ariſe from the yeerly motion of the Sun: ſo the great diverſity of yeers, whereby one proves very moiſt, another exceeding dry the Sun holding every yeer the ſame Courſe in the Zodiack; can depend on nothing, but the various aſpects of the Conſtellations. The other way becauſe it is occult, is not ſo freely granted by all. Howbeit by common Conſent of Aſtrologers, it is held for certain, that the Stars do act upon inferior Bodies in a three-fold manner, viz. by their Motion, Light, and Influence The light and heat do alter theſe Sublunary Bodies according to the firſt qualities and eſpecially Heat. But the Influences doe induce both the firſt qualities (for example the cold which *Saturn* cauſes, cannot depend upon his Motion nor his Light) and alſo the hidden and occult ones. For ſeeing Peſtilential Diſeaſes doe oftentimes happen, no great mutation being made in the ayr in regard of the firſt qualities; but when they rage, the ayr appeares exceeding pure, and purer ſometimes, than it is wont to do when there is no peſtilence ſtirring; neither have very hot and moiſt ſeaſons preceded, from which great putrefactions are wont to ariſe, it is to be coniectured, that theſe peſtilential Diſeaſes doe ariſe from ſome malignant Influence of the Stars. Add hereunto, that Peſtilences are wont to rage even in the depth of Winter, which no remarkeable alteration of the firſt qualities hath preceded. For in ſuch a Caſe, theſe diſeaſes are to be attributed to the hidden power of the Starrs which have (as Aſtrologers teach) a power of corrupting the Air, no extraordinary mutation of the firſt qualitie being made therein. And this is that divine principle in diſeaſes, which *Hippocrates* acknowledged, and according to the Expoſition of *Galen* is in the Air, but is produced by the Celeſtial Bodies and hidden cauſes. It is alſo hinted at by the ſame *Hippocrates*, in the ſecond Epidem. Sect. one. When he ſaies. *The time and the Diſeaſes doe anſwer one another, unles ſome innovation happen in the Superior Powers*

Neither does that hinder which is brought as the opinion of *Plato*, out of his Epinomis, that the Courſe of the Heavens and heavenly Bodies have alwayes good influence here below, and from them nothing but preſervation and benefit doe flow. And *Ariſtotle* in the ninth of his *Metaphiſicks* Chap. 10. Saies that in thoſe Bodies which are eternall and æthereal, neither error nor corruption is found. And *Averrhoes* ſaies in his 1 *De Cælo.* cap. 24. The Heavenly Bodies doe containe the Elements, preſerve them, and univerſally are unto them inſtead of a form. whence it's collected, they cannot infect them with a poyſonous and malignant qualitie. Ad hereunto that if peſtilential diſeaſes ſhould be raiſed by influence of the Starrs, they would at one and the ſame time infect the whol World almoſt, ſeeing thoſe iufluxes are univerſal cauſes, and by the circulation of the Heavenly Bodies, doe affect all the quarters of the World. But theſe diſeaſes doe peculiarly invade ſom one Region onely. And finally if the

Stars were said to be malefick and of an evil disposition; God the Author of them would be accounted the cause of Mischief, which is full of Impiety. These objections, *I* say, doe not a whit prejudice the truth propounded, which may thus be answered. All created substances are considered two waies; either as they are things in being and do concur to the compleating and perfection of the Universe, and in that respect, they are all good: for *to be* and *to be good* are one and the same, neither hath the High God blessed for ever created any thing which ought to be termed evil, simply considered. or they are considered in regard of their operations, and then they may be termed evil, forasmuch as they may damnefie some other things by reason of the antipathy & inbred Enmity of Nature. And although almost innumerable contrarietyes of nature are found in the world, yet must they al be termed good in respect to God their maker, & in regard of the Univers, whose perfection consists chiefly in variety. Furthermore the operations of things created, may be termed evil two wayes absolutely or simply considered in themselves, or in respect of somwhat else; They are absolutely evil when at all times, in all places and upon all occasions they doe perpetually evil; and in this sense no Creature can be found which is evil; in respect of some other thing, the operations of things may be termed evil, when they hurt one and doe another good; and so there is nothing in the whol universe so hurtful, but that it hath some other ways its uses & benefits, for which it was created: So al poysons, though most hurtful to men or other Animals, yet conveniently us'd they doe a great deal of good to them. And in the Art of Physick there is scarce so deadly a poyson found, but that out of it, by skil of Art, an healthfull medicine may be drawn. And finally the actions of Stars upon these inferior Bodies are considered two waies, either in respect of the whol sublunarie world containing the Elements and al mixed things: and so the action of the Heavens and Stars is simply benign, ingendering, conserveing, vivifieing all things, & doing al other good offices which tend to uphold the univers; & in this sence most true it is, that these inferior Bodies are cherished & susteined by the influence of the Heaven and Hevenly Bodies, or they are considered in respect of the proper nature of this or that Element, or this or that living creature: and then it is no absurditie to say that there are some influences hurtfull to som Element or living Creature in such or such a part so and so affected which depends not of any fault of the stars (for they are of a most perfect nature) but rather of the imperfection of sublunary things which cannot suffer any considerable mutation without the corruption of their proper substance: now these divers natures and qualities of the stars, produced in sublunary Bodies by their divers concourse and influence were ordained by the great Architect of this universe, for the Conservation of the whol world which being made up of so divers and so contrary natures, had need of as great variety in the influence of the Stars, that all things might be preserved, as it were in an even balance out of which diversity of influences notwithstanding, it could hardly come to pass but that som parcel of things so different should sometimes suffer, not in any whol kind or sort (which should tend to the destruction of the universe) but only in some individuals that were less able to resist and for the most part misaffected, and only in some part of the Air more disposed to receive malignant influences. From whence we may conclude, that those corruptions doe chiefly depend upon the defect of sublunary bodies Forasmuch as many places are in the world, where the air is so perfectly constituted and the inhabitants so evenly tempered, that let never so malignant Influences of Starrs showr upon them, yet are they never infected whith other pestilence.

To the same kind of Causes must we refer the Defects and Eclipses of Sun and Moon, unusual Meteors and especially Blazing Stars: which are never wont to appear but that Epidemical and Pestilential Sicknesses, and Divers changes in the World do follow, as is Confirmed by the experiments of many Histories: whence that usually Cited verse of *Claudian* is become as a Proverb.

In Cælo nunquam Spectatum impune Cometam.

A blazing Star does not appear.
But some Beholders plagued are.

A most evident witnes whereof was that hairy Comet which appeared *Anno* 1618. Towards the East on the 27 of *November* and was afterwards seen near upon the whol Moneth of *December*, moving and shining. It's thicker and more solid part being turned towards the Sun, did behold the East, and did far exceed *Venus*, both in the clearnes of its shining, and in its largnes, thickly compacted and conglobated together. The remaining part, being more thin, and less enlightened by the Sun, because of its thinnes did move like a fairly spred beard and stretched towards the West. This Comet first appeared under the sign of *Libra* nere the *Æquinoctial Line*; but by a private and peculiar motion of its own, it was carryed from thence, through the feet of *Virgo*, the middle of *Bootes* and the tail of the greater *Bear*. And at length, its light decreasing by little and little and the matter whereof it consisted being dissipated, it vanished betwen the great *Bear* and the *Dragon*.

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It was carried with the common motion of the Stars from Eaſt to Weſt, but it ſeemed to be moved ſomwhat ſwifter than the Stars, for in the firſt Daies of its Apparition, it was wont to riſe a little before five in the morning; and afterwards it roſe about four a Clock and before four, and ſo ſooner and ſooner, till it prevented the Midnight, and Bed-time. And we have reaſon to believe, that this Comet was the Prognoſtick and forerunner of malignant and peſtilential Diſeaſes, and alſo of thoſe Wars, wherewith whole Europe in a manner, hath ſince that time been laid Waſt.

And although the Air be chief among the mediate Cauſes of malignant and peſtilential Feavers: yet ſure enough other non-natural things do concur to their generation, as I ſhall particularly and berifly declare.

The next to air are Aliments, becauſe bad Diet Cauſeth a ſickly diſpoſition of the body, which is an internal efficient, and *Cauſa ſine qua non*, of malignant and Peſtilential Feavers. Whereupon *Galen* in his Book *De Cibis boni et mali Succi*, and in the 1. *de Differ. Feb. Chap.* 3. Does demonſtrate, that from bad and corrupt Diet Peſtilential Diſeaſes do ariſe. Now meats are ſaid to be evil and the Cauſes of thoſe diſeaſes in many reſpects.

And in the firſt place, when the Fruits of the Earth and of Trees, by reaſon of a bad conſtitution of the year *viz.* Over moiſt or over dry, or corrupted by miſts, or ſome tempeſtuous weather, or ſome malignant influence of the ſtars; do, being eaten, produce bad Juices in the body.

Secondly, when there is great Famine and ſcarcity of Corn: From whence came that Proverb *Ho loimos meta limon*, the Plague follows famine. For then the poor common People are forced to fill their bellies with ſuch meats as are cheap and bad, whence ariſes abundance of bad Humors. And which is much worſe, when a plenty preſently followes famine, they do then ſuddenly cram themſelves with much meat, which by the languiſhing heat of their internal parts cannot be well digeſted, and thereupon thoſe meats come to participate of a malignant putrefaction.

Thirdly, When Aliments, which in their own Nature are good do by ſome way or other, gain putrefaction or ſome evil qualitie, ſuch are wheat, barly, beans, and peaſe, and other kind of grain, which being either over long kept, or ill laid up in a moiſt place, or otherwiſe miſaffected, do come to be muſty, or have ſome other putrefactive qualitie. Such is fleſh over long kept, or ſtinking or ſuch as is of beaſts that were not killed, but died of ſome diſeaſe: as *Julius Obſequens* relates, that in the Iſle called *Lipara* when the Sea was made hot, the fires which by meanes of an Earth-quake were forcibly vomited out of the Mount *Ætna*, and had boiled the Fiſhes caſting them upon the ſhoar: the Inhabitants eating greedily of thoſe Fiſhes, a ſore Peſtilence followed.

Neither is there leſs power in drinks, when putrid and corrupted wines or beer or other liquors are drunk; or when water is drunk out of putrid and muddy Lakes, or otherwaies infected. As good Hiſtories do teſtifie that numerous Armies, have been deſtroied by peſtilential Diſeaſes, with drinking ſuch waters.

Theſe non-natural things mentioned *viz.* Ayr and Meates and drinks, have the greateſt force to engender malignant Feavers. but the four remaining *viz.* things voided or retained, Motion and Reſt, Sleep and waking, with Paſſions of the Mind, are of leſs efficacy, and do only concur as adjuvant Cauſes, or ſuch as diſpoſe the body to conceive a malignant putrefaction; as in our expoſition of them ſhal preſently appear.

The retention of Courſes in women, or of ſome other accuſtomed evacuation in Men, as of the Hemorrhoides, bleeding at noſe, and Looſenes, which betides ſome perſons, at certain ſeaſons; when they happen in a peſtilential year, they are wont to produce a malignant diſeaſe. For thoſe things which are wont to be avoided as ſuperfluous and burdenſome to Nature, if they be retained in the body, they do eaſily conceive putrefaction ſo likwiſe over great evacuations either of blood or other humors, do much weaken the Body, and do Cauſe that Natural Heat being weakned, it is ſoon infected by the vitious and peſtilential impurities of the Air.

As for motion and reſt, certain it is, that overmuch Idleneſs is a Cauſe, that Natural heat is not ſufficiently eventilated, and conſequently the Humors conceive putrefaction: ſo over great exerciſe does very much open the pores, and diſſolves the Heat; whereupon the body becoming weak and more apt to take impreſſion, does eaſily receive the Infection.

And too much ſleep, makes many Excrements and fils the body with Humidities, which eaſily putrefie, but too much watching does engender Crudities, and they eaſily putrefie, becauſe Natural Heat cannot wel maſter them: and becauſe by them, many obſtructions are cauſed, by which Tranſpiration is prohibited, and at length putrefaction engendred.

And finaly, paſſions of the Mind, are wont vehemently to exagitate the body and to diſturb the humors: and ſo they much Diſpoſe the body to receive infection; and eſpecially fear and Sadnes which Drawing the vital Spirits inward, do as it were choak and ſmother them, whereby the vigor of the Heart is ſo broken, that it cannot ſufficienly reſiſt the venom and firſt aſſaults of peſtilential Sickneſſes, yea verily and the Humors being ſtirred in the veines and vehemently diſturbed, are thruſt out of their Natural conſtitution, and do conceive a malignant putrefaction. Inſomuch that

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some have conceived, that Pestilential Diseases are bred in Camps and at Sieges of Towns, not so much through bad Diet and stink of dead Carcases, as through Terror, Fear, Anxiety and dread of Death, which do exagitate the Humors, and put them into a tumultuary Combustion and Fluctuation.

The Signs of a pestilential Feaver do some of them foretel the disease when it is coming; others declare it to be present; and others witnes where it has bin. All which must be set down, because the first tend to Preservation, the second to Cure, and the third sort to be a Caveat to such as are not yet infected.

The Signs which foreshow a pestilential Feaver, are taken from three things viz. From the, the Disposition of the Body, from the Presence of Causes, and from some intermediate dispositions.

Those bodies are disposed to receive pestilential Infection, which have collected evil Juyces through bad diet, and by a preposterous use of the six non-natural things aforesaid. Or such as being plethorick do gorge themselves and inordinately and unseasonably repleinish themselves. Furthermore some that are neither plethorick nor cacochymical, do dispose their bodies to the reception of this disease, while they torment their minds with most troublesome passions, or give themselves immoderately to carnal embracements; for from these two Causes, the pestilential feaver is very ordinarily produced, forasmuch as by them corruption is easily introduced even amongst good humors for Passions of the Mind do distract and draw away the spirits, from their proper operations and overmuch Carnal embracement, does weaken al the powers of the body. but, the Spirits being distracted, and the vertues weakened, the Humorrs change their Nature, and grow corrupt.

Finally, those whose principal Members are weak, or some waies tainted, either from the womb, or by bad diet or any other external Cause; which have an hot and moist temperature; which have a very thin or very compacted habit of body, are al disposed to pestilential Feavers, for hot and moist bodies are subject to putrefaction, thin bodies are liable to al injuries, compacted constitutions, have no free transpiration.

The presence of such Causes as can breed a pestilential feaver do portend the same: and consequently il seasons and unnatural temper of the year, Dearth, and Scarcity of Victuals, Wars and other Causes, reckoned up before, when they appear, they declare the Plague to be approaching.

Those intermediate dispositions are, when such a disposition of body and the Causes aforesaid being present, wee see a Man more sad than ordinary, an unexplicable fear in him without good ground or cause, the Colour of the face changed; is not rightly disposed in point of diet; is disturbed with bad dreames; infested with wearines which comes without labor, thirst, watchings, stomach-sicknes; it is eatily conjectured, that man wil have the Pestilence: for al these things do declare, that the humors do attain another nature, and do corrupt. from whence comes a pestilential Feaver.

Such Signs as declare the Pestilence to be present are exactly to be propounded and therefore al the Heads of Signs must be run over, out of which this Disease may be known. which Heads of signs, are taken from the three kinds of symptomes, because the symptomes are the Effects of Diseases, and Causes can no way so conveniently be known as by their effects. And therefore, some signes are taken from the Actions hurt, some from Excrements voided, and others from qualites changed. Unto which Heads a fourth must be added taken from supervenient Infirmites. To the right understanding of which, these things following must be premised.

First, we must know that the same signs in a manner doe shew a pestilental Feaver properly so called, and a Feaver simply malignant, and that the signes of the one and the other doe differ only according to more and leis; so that in the pestilential Feaver the symptoms are more, and in the malignant Feaver leis cruel; yet there are some adjuncts more proper to the one than the other which we shall declare in their proper place.

Secondly, we must note, that there is no true, proper and Pathognomonick sign of these Feavers viz. Such an one as wherever that signe is, there is the pestilence, and where that sign is not, there is no pestilence; no not the Bubo or swelling in the Groyn nor the Carbuncle; seeing that many have them not though they have the plague, and many have Buboes and Carbuncles that have no malignitie in them: neither are those purple spots any such pathognomonick sign, although a malignant Feaver is from them termed the spotted Feaver, forasmuch as many have a malignant Feaver without any such spots; & those spots doe sometimes appear on women that want, their courses, and in some Children by reason of a light ebullition of Blood, without any Feaver, which I have often seen in both. Howbeit by a Concurrency and collection of all signes and tokens these Feavers may certianly be known,

Thirdly, we must mark, that al the signs which shall be propounded, are not found in al sick persons of these Feavers; but only a part of them, which notwithstanding will be sufficient, punctually to discover the kind of the disease. For according to the variety of patients bodies

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& the intention or remiſnes of the diſeaſe, now theſe kind of ſymptomes, & anon thoſe do; chiefly ſhew themſelves.

Finally, it muſt be known, that the ſigns of a peſtilential and malignant Feaver (although they are alſo found in other Feavers) yet are made in ſome ſort pathognomonick in this Feaver in a two-fold reſpect. Firſt, becauſe in theſe Feavers, they are ſo conditioned as in other Feavers they are not. For the Head-ach, Ilneſs at Stomach, Vomiting, the manner of the Heat and other ſigns, when they accompanie peſtilential Feavers, they have a peculiar malignant condition whereby they differ from themſelves when they accompanie other ordinarie Feavers; which is wel known to them that are but indifferently exerciſed in the Practice of Phyſick. Secondly, becauſe the ſymptomes do not obſerve the ſame proportion among themſelves in theſe Feavers, which they doe in ordinarie ones. So that the heat being gentle to the touch, the pulſe not much changed, doe ſhew a ſinal Feaver: yet with them is joyned mighty Head-ach, watchings and ſomtimes raveings, and other ſymptoms which are wont to accompanie a burning Feaver. Theſe things being thus premiſed, we ſhal decribe the order of ſigns, beginning from the actions hindered.

Becauſe therefore, the Heart is cheifly afflicted in theſe diſeaſes, by the malignant and venemous quality thereof, therefore its action viz. The Pulſe, is diverſly changed, according to the varietie of times and the divers condition of the diſeaſe, For ſomtimes at the firſt, it is in a manner natural, and very like the pulſe of perſons in health, as *Galen* ſhews in the 3 de preſag. cap. 4. but in the progreſs and augmentation of the diſeaſe, it is little, weak and unequall. Alſo the frequentneſs of the pulſe is alwayes more than the increaſ of heat can require, becauſe the Heart being provoked by the malignant qualitie, doth in that regard diſturb it ſelf more than the neceſſity of eventilation doth require. Likewiſe the ſigns of this Feaver are.

Cardialgia, Heart burning or pain of the mouth of the ſtomach, which *Hippocrates* condemns as a ſign of malignity 1. Progn. in theſe words, Pain of the mouth of the ſtomach, with diſtention of the Hypochondria and Head-ach, are ſigns of malignity.

Somtimes great thirſt, exceeding the meaſure of the Patients heat and ſomtimes want of thirſt, with a vehement Feaver, and dryneſs of the Tongue, for both are ſigns of malignity

Great want of appetite, which make many abhor al kinds of meat, as much as if they were the moſt loathſom medicines. Now this is wont to ariſe from malignant vapors which vex the ſtomach.

Stomach Sickneſs and vomiting ariſing from the ſame Cauſe, eſpecially when it happens in the beginning of the diſeaſe, and is ſo divers that ſome preſently vomit what they eat; other vomits as ſoon as they have taken broath, but they vomit not the broath which they took, but divers kinds of Humors; ſome keep any kind of meat, but vomit their Drinks, Iuleps, Emulſions and whatever drinking matter is given them, preſently; great thirſt notwithſtanding remaining, with dryneſs and blacknes of the tongue.

A frequent and inordinate ſhivering, which comes divers times in a day, ſpringing from ſharp and biting exhalations of an adverſe qualitie to our natures, which are carried unto the ſenſitive parts: which kind of ſhivering does rarely happen in other putred Feavers, becauſe the vapors in them have not the like malignitie. In malignant intermitting tertians, ſomtimes a ſign of malignitie is taken from the ſhaking and the cold. For it ſomtimes happens, that in the beginning of the fit, with a light coldneſs or ſhivering, the heat doth ſo much retire inwards, that the fleſh of the patient is very cold and the face is like that of a dead perſon, and the pulſe ſo little as if it did not beat at al. After which follows an Heat, which neither in the Augment nor in the ſtate, doth to the touch feel great or ſharp, yea and the fleſh of the patient is either lukewarm to feel to, or coldiſh even to the declination. The pulſe, when the heat comes, doth more appear, yet it is ſmall, unequal, frequent and very weak: and many other ſymptomes of a peſtilential Feaver are preſent, which may ſufficiently prove, that there are intermitting malignant Feavers as well as continual; as was hinted before.

Wearyneſs of the whol bodie, Heavineſs, and a breaking as it were of the members appear in the beginning of the diſeaſe, by reaſon of the foreſaid vapors, diſperſed through the whol Body

Paines of the Head, Watchings and Raveings, which al come from the ſame cauſes, viz. from ſharp and venemous vapors; which when they lodg themſelves in the membranes of the Brain, they cauſe head-ach and in as much as they heat and dry the very ſubſtance of the brain, if the alteration be but ſmall, they cauſe watchings, if great they cauſe ravings. And to theſe ſymptomes, beſides Heat and Dryneſs, the venemous quality contributes much, becauſe in the vulgar Feavers ſuch ſymptoms do not happen, unleſs the diſtemper be much more than ordinarie. And paines in this Feaver, have a peculiar property to be very diverſe, & to ſhift places. For ſomtimes only

the fore part of the head, otherwhiles the hinder part, now the forehead, anon the eyebrowes are cut asunder as it were with pain, and sometimes other parts as the shoulder-blades, the sides, the back, &c. Somtimes it is fixed in one part, otherwhiles it changeth place and vexes now this, now that part of the body.

In some patients drousie and sleepie dispositions happen, viz. In such as have their brains ful of flegmatick excrements: which flegmatick excrements, are desolved by hot vapors ascending from the inferior parts, and doe hinder the functions of the Brain.

The urin in these pestilential Feavers, is sometimes like the urin of sound persons, namely when the humors doe more offend through a malignant Qualitie, than by putrefaction; & somtimes it continues so for the first days; afterwards it becomes thick & troubled. Somtimes in the state of the disease, it appears concoct, though the sick are in a perishing condition. sometimes, it is thin and crude, haveing no sediment, or such a sediment as is more like an excrement than a sediment. But most commonly it appears thick and troubled, and of an high colour; and hath a thick, red, distrubed and scattered sediment. And finaly al evil dispositions of urines, doe happen in this disease, according to the divers alterations of the putrefieing and corrupted Humors.

Chollerick fluxes of the belly, which either comes of themselves or through some like occasions by some gentle Clyster or medicament; which bring many to their end, So *Hippocrates* relates in 3. Epidem. In a pestilencial Constitution there described, that many died of the loosnes and Bloody-flux: For the Humors being made more furious by the malignant qualitie which is in them, doe exceedingly provoke Nature, so that she indeavors to drive them out the neerest way: Now in these Stooles, there is wont to be a mighty stink, by reason of the extream corruption of the humors.

An abundance of Worms is wont to be avoided in this disease, especially at the beginning: For the great Putrefaction doth very much dispose the Humors to breed Worms.

Frequent sweates, small, short and unprofitable doe break forth in the beginning of the disease.

The Heat is mild and gentle to feel to, so that they scarse seem to have a Feaver, whereupon *Galen 9. Simp. cap. de Bolo Armen, & Avic. fen 4. lib. 1. cap de febre pestilenti.* Doe teach that pestilential Feavers have oftimes a mild and gentle Heat; and the reason is, because these diseases are rather caused by a malignant and venemous quality, than of an ordinarie distemper and Putrefaction.

Readnes of the eyes is often seen in pestilential Feavers, because the membranes of the Brain are in a sort inflamed by sharp vapors ascending into the head, which they easily communicate to the *Tunica adnata* or skin of the eyes so called, which is propagated from the said membranes

Finally, purple spots like Flea-bitings, called by later Physitians *Peticulos* or *Petechiæ*, are the proper and peculiar Signs of a malignant Feaver. For they are found in no other kind of Feaver; forasmuch as they do arise from a vitious quality of the blood or other humors, joyned with malignity. Yet there do appear in other diseases, spots very like unto those aforesaid, but springing from a far different Cause; *viz.* From the over thinnes of the blood, which being exagitated by the heat or the expulsive faculty, does sprout forth of the Capillary Veins into the Skin. These spots, are wont for the most part to appear in such as have some flux of blood, because the blood in such is more thin and watry: and also in splenetick persons, in such as have the Jaundise and old obstructions of the Bowels, and (in a word) in al such, who by reason of the weaknes of their Bowels, do breed watry blood and are apt to fal into a Cachexy. For in such persons, the blood being made thinner than ordinary, sometimes flows out at the Nose, somtimes at some other part, and somtimes it comes out of the Capillary Veins into the Skin; where being retained, it loseth its own coluor, and becomes either blewish, or black, or light red, and causes great variety of spots; which notwithstanding are very far different from the spots of pestilential feavers, and do argue nothing but the watry thinnes of the blood and weaknes of the Liver. Now those spots which come out, in Pestilential feavers, do arise from Humors putrefiing and infected with an evil quality. Furthermore, those spots do break out somtimes critically and somtimes Symptomatically. Critically, when as Nature haveing either in Part or in whol overcome the putrefaction and corrected the bad quality, does drive the corrupt humor to the external parts; And then the disease is evermore abated. Symptomatically when Nature is pricked forward by the quantity or evil quality of the morbifick matter, does transmit a portion thereof unto the Skin, before it be concocted, or the evil quality thereof amended. And from thence the Patient receives no Ease, but rather, Nature haveing unprofitably wrastled with the disease, it is a token rather that shee is conquered than conquers.

The Colours of these spots are divers, and do show the Diversity of the humors by which they are bred. For the red spots are bred of the purer sort of blood, and the black from chollerick blood more or less adust. As for the store of these spots, somtime they appear in greater numbers and

somtimes

ſomtimes in leſs. They begin to appear ſomtimes on the fourth, fifth, ſeventh, or ninth, or ſome other critical day, if their coming out portend any good; ſomtimes on other daies, when there is little good to be hoped for thereby. Somtimes they are ſeen in al parts of the body, but moſt frequently in the Loynes, breſt and Neck.

Now the Diſeaſes which come, upon a peſtilential feaver for the moſt part are, ſomthing coming out like Pox called *Exanthemata*; Puſhes and Ulcers of the Mouth; Carbuncles; Riſings in the Groyn and behind the Ears.

The Exanthemata aforeſaid, differ from the purple ſpots, becauſe in the ſpots there is only the color changed, but here is a certain riſing in theſe *Exanthemata* to an head. Somtimes they are like warts, and ſomtimes leſs, reſembling millet ſeed. Somtimes they are red, being cauſed by blood ſomtimes white, proceeding of flegm or Seroſities; yellow from choller; purple from aduſt Choller; blewiſh or black, by reaſon of great burning or Mortification. Some break out Symptomatically, others Critically, others in a middle way. Some dry away, others come to matter, others grow to be ulcerous.

To theſe may be referred puſhes appearing in the Mouth which have al the differences of the forſaid *Exanthemata*, and are ſomtimes ſo malignant, that the ſick can hardly endure to eat and drink. From Children they often Cauſe Death becauſe they wil not endure the pain of eating and drinking. Theſe puſhes do ſomtimes degenerate into Ulcers, which breed very great trouble to the patients, hindering the motion of their tongue and eſpecially their ſwallowing.

But ſomtimes Ulcers are bred in the Mouth immediately without any puſtules or puſhes foregoing which the *Greeks* cal *Aphthæ*: of which there are many ſorts. For ſome are ſuperficial, others profound; ſome clean, others foul; ſome benign, others malignant; ſome with a Cruſt, others without. And the Cruſt is ſomtimes white, ſomtimes yellow, ſomtimes blewiſh or black. Thoſe which are deep, filthy and malignant and that have a black Cruſt, are the moſt dangerous.

Carbuncles and Buboes, are wont to riſe in divers parts of the body, but eſpecialy where the Glandules are; becauſe the expulſive faculty being provoked by a malignant quality does expel the pernicious matter from the internal parts eſpecially the more noble ones to the external: ſo that from the Brain ſhee ſends it to the Glandules or kernels behind the Ears; from the Heart, to the Arm-pits; from the Liver to the Groyns; whence ſwellings under the Ears called *Parotides*, & thoſe in the Groyn called *Buboes*, do ariſe. Which kinds of tumors do cheifly appear in a true peſtilential feaver, eſpecially thoſe in the Groyn, which therefore the common people call the Peſt or Plague. But Carbuncles and *Parotides* or riſings behind the Ears, do alſo break out in malignant Feavers, but in ſuch as are at the top of malignity, and come very neer the Nature of true Peſtilential Feavers.

Signs commemorative, are chiefly in requeſt when Phyſitians are called to view the Corps of the dead, at ſuch times as there is a Plague abroad, or ſome ſuſpition thereof, that it may be known whether the party died of the plague or not.

And firſt of al, in ſuch dead bodies there do ſomtimes appear thoſe ſpots of which we ſpake before and ſomtimes marks, or ſtripes, as it were after whipping: for theſe are the tokens of a Peſtilential diſeaſe and venemous, ſeeing thoſe that are poyſoned have alſo theſe ſigns. And thoſe ſpots do eſpecially denote the Peſtilence, when they are of a lead Color or black. Alſo thoſe *Exanthemata* ſpoken of before, do ſhew the ſame, eſpecially if they have a bad Color: but much more the Buboes, *Parotides* and Carbuncles whereunto may be added ſuch ſigns as have appeared in the Courſe of the diſeaſe: for the recounting of them wil make a certain demonſtration.

The Prognoſtick of Peſtilential Feavers is ſo uncertain, that nothing can be certainly affirmed touching their Event, until certain tokens appear either that Nature or the diſeaſe hath gotten victory; which is not wont to happen, unleſs about the end of the ſtate or the Beginning of the Declination. Where the diſcreet Phyſitian ought to delay and ſuſpend his Judgment touching the Iſſue of the diſeaſe in the Beginning and the Augment

Wee muſt nevertheleſs propound the chief tokens out of which we may draw a great Conjecture, whether the diſeaſe wil end in Death or Health, by help whereof we may foreſee, what is to be hoped or feared. yet not being over confident: for Experience hath taught us, that many have eſcaped, with moſt mortal ſigns; and others have periſhed under al the tokens of Recovery. But we ſhal paſs over al ſuch prognoſtick ſigns which are common to al acute diſeaſes, of which *Hippocrates* hath diſcourſed largely in his Prognoſticks, Coick, Predictions, Procheticks, and Epidemicks and likewiſe in his Aphoriſms, which may have a place likewiſe in this diſeaſe. But wee wil propound only ſuch as are proper in a ſpecial manner to peſtilential Feavers, from which a more certain Prediction may be drawn.

Now theſe may be drawn from the ſame fountains from whence wee drew the Diagnoſticks.

Firſt Therefore, in theſe Feavers, if the puſſe keep a tenor and equality, be the Feaver never ſo great, it gives alwaies ſome matter of hopes. Contrarily an inordinate, unequal and contracted puſſe, is dangerous, eſpecially if it appear weak from the Beginning. But thoſe differences of

puſſes

pulses are not so dangerous in malignant Feavers, as in ordinary ones. For although an intermitting pulse in a young man, be so deadly a sign, that *Galen* testifies, though he had seen many old folks and children escape having an intermittent Pulse, but never any young Man, yet in malignant Feavers I have known not a few young Men, which had an intermitting pulse divers daies and yet escaped. Pulses like those of persons in Health are very dangerous: for they signifie that Nature out of weakness abstains from the Concoction of Humors. For where by an evil and pernicious quality, the strength is exceedingly weakened, Nature being weak, does not set her self to digest the matter, not meddling with the Humor which hath caused the disease: so that no endeavor of coction being used, no labor follows, and there is either no Feaver, or a very little one. Wee have an example hereof in external tumors, in which so long as the Part is almost overwhelmed by the plenty or ill condition of the matter, there is neither Pain nor Terror; but whereas Nature begins to fight against the matter and to turn it into quittor then the feaver is much increased. Even so in malignant feavers, the Patients seem sometimes freed from their feaver, wheras they grow worse and draw towards death: as we may see in *Hippocrates* 3. Epidem. Secti. Aegr. 2. where *Hermocrates* from the twentieth day to the twentyfourth seemed to have no Feaver, and yet on the twentysixth he died.

Raving is very common in this Feaver. neither is it to be feared, if it be lessened by sleep, and especially if it vanish away with a plentyful sweat: for tis a sign that the matter is drawn from the brain, into the habit of the body. But a persevering dotage, is pernicious, because it's a token that it degenerates into a true Phrenzy.

The contractions and hoppings of the Members, which do often happen in this Feaver, are Convulsive motions and very pernicious, and that the more if joyned with raveing, for they signifie the brain to be extreamely hurt.

Trembling motions of the hands and Tongue are wont to be deadly and are by *Hippocrates* much condemned in the 1. Prognost. For they shew great weakeness, and that Nature is overcome by the disease.

Deafnes though in the beginnings of occult diseases it be exceeding dangerous, according to the Doctrine of *Hippocrates*; yet if it appear in the State of a disease it portends health, especially in malignant Feavers. And I have observed a thousand times, that such as being sick of Pestilential Feavers, were taken Deaf in the State of the disease, did al escape, though the other symptomes were never so dangerous; for it is a token that the brain, being sufficiently strong does thrust the humors from the internal to the external parts.

Sneezing, according to *Hippocrates*, even in deadly diseases (provided the Lungs be in good Case) do give Hope of recovery. But in malignant Feavers, be the symptomes otherwise never so dangerous, they promise Recovery.

Frequent Heart-burnings or Hiccoughings, do portend danger, and signifie that the stomach is grievously afflicted by the venemous quality.

Extream averines to meat, is very dangerous for it signifies the Stomach to be mastered by the malignant quality of the Humor, and that its temper is wholly overthrown, so that it refuseth and abominates laudable nourishment, which it most familiarly affecteth in time of Health.

Suppression of al evacuations in the beginning and augment of the Disease, is counted a good sign. For it shews that the morbifick matter is not so malignant, as to provoke Nature to excretion before the due time but that Nature does yet conquer, and wil in due time expell the matter, provided there be no sign that the Humor wil settle in the Head, Belly or any principal part. But in the State of the disease for nothing to be evacuated, but for worse signs to appear in some principal member; is bad. For it's a sign the disease wil either last long, or give little hope of Life. For the matter which in divers daies could not be overcome, does bring some great dammage in the same member, as a phrenzy, Lethargy, and others which arise after the eleventh or fourteenth day, which can very hardly be cured by al the Medicines imaginable.

Blood that is drawn by Phlebotomie, if it appear no waies faulty, but pure and according to Nature, tis a dangerous token. For it is a plain argument that there is more of a venemous quality, than of putrefaction; or that putrefaction may lurk in the Veins next the Heart, which cannot be drawn away by Phlebotomy.

From Urines in a Pestilential Feaver, there is scarce any, or a very uncertain prediction to be made. For not only the confused, troubled, thinner, and thicker Urines are bad, as in other Feavers: But also that Urine which is like the Urine of a healthy Person. Yea verily, and many have died, after the Urines have shewed signs of Concoction, and then became crude again.

Howbeit, Concocted Urines, and which have a laudable *Enaorema* continuing many daies; and daily more uniting it self, and descending by little and little into the bottom of the Urinal, doth perpetualy promise certain recovery, even in malignant Feavers. For it cannot be, that a lusty and strong natural Faculty, which discovers it self plainly in these Urines, should not rise against the malignant Quality, and at length overcome the same. And therefore I have oftentimes with great confidence foretold a good event from the signs of Concoction persevering in the Urines

in

in ſuch as have had malignant Feavers, attended with moſt grievous Symptoms, ſo that all the By-ſtanders were in great fear of their Lives.

A Fat and oyly Urine, black or livid, with a black or blewiſh ſettling, doth certainly betoken death.

Very much Urine being made, and no abatement of the Feaver thereupon, is dangerous, becauſe it ſignifies a melting of the Body.

Sweats in this Feaver, although they come well conditioned, and in the Critical day, doth ſeldom perfectly judge the Diſeaſe. And ſomtimes the Feaver is abated by Sweat on the firſt day; and then the Symptoms grow high, and after many Sweats the Patient dies. For plentiful Sweats, not diminiſhing the Diſeaſe, doth ariſe from the melting of the whol Body. Neither muſt we therefore beleeve, that Critical Sweats doth never any good in theſe Feavers. For by how much leſs Venom there is in the Diſeaſe, they do ſo much the more good; as it happens in ordinary Feavers. And we find by Obſervation, that 'tis far the better for the Patients to Sweat often at the beginning of the Diſeaſe (provided they be not worſe after their Sweats) for 'tis a ſign that Nature doth attenuate the Matter by little and little, and expel the ſame by Sweat.

Looſneſs of the Belly is a very uncertain ſign. For oftentimes a Looſneſs at the beginning of the Diſeaſe hath been good, which yet experience ſhews, is ſomtimes a deadly token. Again after ſome Coction, we have ſeen the Patient killed, by a looſneſs, and ſomtimes by the ſame recovered: Yet we muſt thus diſtinguiſh. When a venemous Quality hath the maſtery, the more the Matter goes away by Stool at the beginning of the Diſeaſe, the leſs danger. But when the Diſeaſe ariſes moſt part from putrefaction of the Humors, they are worſe that are looſe, at the beginning of the Diſeaſe.

Purple ſpots, when they are many and large, and of a benign color, and break out Critically, they foretel that Nature wil Conquer. But if they be few, ſmal, & of a bad color, and are Symptomatically put forth, they ſignifie that Nature is never worſted. And further, If they go in again, its the worſt ſign of all; for it ſhews that the morbific Matters reflux into the inward parts.

Exanthemata, or wheels appearing in divers parts of the Body, are effects of greater malignity than Purple Spots, and conſequently portend greater danger.

Carbuncles and Buboes, or riſings in the Groin and ſome other parts, doth witneſs greateſt malignity, and threaten moſt danger: ſeeing they are wont to follow thoſe Feavers whoſe peculiar Character it is, that more die of them than recover.

Carbuncles & Buboes, by how much they are the further from the Heart, grow faſter and come quicker to ripen, by ſo much the leſs dangerous are they. But if Tumors encreaſe ſuddenly with bad Symptoms, 'tis ill. Carbuncles very great, of a filthy color, with an eating Ulcer, or which turn into a Grangrene, are deadly: as alſo thoſe which are neer the Heart, or riſe upon the Throat Experience hath taught that many Carbuncles are more dangerous than few; and contrarily many Buboes or other riſings are more ſafe, than few. *Perotides* (or riſings behind the Ears) in malignant and Purple Feavers, are in the Augment and ſtate deadly. But if they appear when the Diſeaſe doth never ſo little decline and come to Suppuration, they are a good token.

The Cure of a Peſtilential Feaver is divided into two parts. The firſt contains the preſervation of thoſe that have it not; the ſecond contains the healing of thoſe that have it.

The preſervation from the Peſt conſiſts chiefly in taking away of thoſe Cauſes, which make Bodies fit to rece ive the Peſtilence, and breed it in them. And they are Internal or External; the Internal are a Diſpoſition of the Body apt thereto, a Plethorie, a Cachochimy, and Obſtructions. The External are eſpecially, a vitiated Air, and a wandring Contagion. Bodies diſpoſed to this Diſeaſe, are ſuch as either Naturally or Accidently, are more moiſt than they ought to be; Weak lax and rare, denſe and compact. Moiſt bodies muſt be dryed; drie muſt be preſerved in that temper; the former muſt avoid full diet, much drinking and all moiſt nouriſhments; ſuch as are eſpecially Fruits that wil not keep, Hearbs, Fiſhes, Meats made of milk; the South air, ſuch as comes from lakes, and eſpecially the air of the night, Idlenes, long Sleep, eſpecially Sleeping after dinners, Batheings and whatever elſe can moiſten the Body.

Let weak bodies be ſtrengthened, with a reſtorative diet and with ſtrengthening medicaments. Thoſe of a rare lax and thin conſtitution, need the ſame waies of prevention with the moiſt. But the denſe and compacted conſtitution, becauſe it is moſt of al diſpoſed to a peſtilential diſeaſe muſt more carefully be freed from a plethorie, Cacochymie and from obſtruction; which cauſes, ſeeing in all bodies they may breed this kind of Feaver, as internall cauſes, we muſt perpetually ſtudie their removal.

A Plethory requires Phlebotimy provided nothing do adviſe the contrary, as a very cold or hot ſeaſon of the year, and a peſtilential Conſtitution of the Ayr in which a vein muſt not be open-

ed, unless a *Plethora ad vasa* do manifestly urge the same; or some usual evacuations of blood by courses, hemorrhoids, or nose-bleeding, have been stopped. For the blood being exhaust the air which is breathed in will more easily imprint it's pestilential qualitie, and in case the disease happen, the Patient will the hardlier escape, for being weakened by blood-leting even as they who drink poison after blood letting, it penetrates the more and they are with more difficulty recovered. Also when we fear poyson, we let not the patient blood, so *Galen Lib. 7. de diff. Feb. Cap. 4.* Where he propoundes a preservation from a pestilential Feaver, he prescribes indeed Purgation and opening of obstructions; but he makes no mention of Phlebotomy

To Cacochymy we must oppose purgeing, such as is proper for the humors offending, convenient preparation being premised if it seem necessary: with this caution, that benign medicaments be only used, abstaining from such as have a malignant and deadly qualitie. with which it will be good to mix some Bezoarticks and such things as are Alexipharmical.

Obstructions are caused by the multitude of humors their thickness and clamminess. The multitude will be helped by such urin as evacuates the thickness; by such as attenuate the clamminess by things that are absterstive or clensing.

In respect of externall causes, Precaution must be made first by correcting the excesses of the air viz. By cooling that which is too hot, as we taught in continual Feavers; by drying that which is over moist, with fires both in streets & in private houses, and that as much as may be made with sweet woods as Juniper, Bayes, Rosemary and such like. Secondly by removing al the causes above recited which do infect the air. Thirdly by consuming and dissipating the infections in the air. which may be don by kindeling of fires, as was said in correcting the moisture of the air, and the perfumes of sweet smelling and Alexipharmical materials. Also by vehement agitation of the ayr, to which end the frequent discharging of great Guns will be very effectuall.

But if the ayr shal be very much infected, so as therefrom a Feaver truly pestilential shal arise, the best kind of preservative is to change the air, and they that are forced to continue, or to converse in places infected and among the sick: have need of many other cautions and they must often use Antidotes. All which are at large set down by such Authors as have treated expresly of the Plague, and from thence the reader must fetch them; because my design is but briefly to touch such things as are requisite to the cure of the true pestilence; because few Physitians of any note dare hazard themselves in the cure of the true Plague: & contrarily seeing both in *England* & in *France* and whol Europe over; al Physitians in a manner have imployed themselves in the cure of spotted and malignant Feavers; I have thought it most worth my paines to direct this cure to that kind of pestilential Feaver, which is simplie called malignant and the spoted or purple Feaver. Yet so that it may serve for the cure of the true Plague; seeing as we said at the beginning, the same Medicines and the same Indications, will serve for both.

The Cure therefore of those which are actualy sick must be directed unto the Feaver, the putrefaction and the malignant qualitie. The Feavers must be opposed with Coolers and Moisteners, the Putrefaction with Evacuators and Alterers. The malignant qualitie with Antidotes. Al which intentions must be satisfied by a threefold Medicinal Meanes after the manner following.

The same diet must be appointed in this Feaver which was appointed in the continual Feavers. Only this one thing must be observed, that sharp things must be oftener used in drinks and broaths as being very fit to resist putrefaction and the malignant quality. Also touching drink this must be observed that the use of wine and strong drink is somtimes good in this Feaver, because they and especially wine are very cordial and contrary to the malignant quality. Yet many times they do much hurt and encrease the heat of the Feaver. Wherefore the prudence of a physitian, is in this case very necessary, that he may contemplate the Nature of the disease and constitution of the patient: for by this meanes he shal know whether the use of wine or strong drink be safe or no For if the Feaver be very smal, but the venemous quality very intense, and the body of the patient abound with flegm, wine wel allaied with water may be safely given and to good purpose. But on the other side in an high Feaver and a chollerick constitution, to give wine or strong drink is pernicious. This I have learned by a multitude of Experiments and especially in the yeer 1625. When the Purple Feaver was rife at *Montpelier* after the City had bin beseidged. Which Feaver was so malignant, that a third part at least of those which had it died, and it differed from the true Plague only in the point of a Bubo: forasmuch as not only whelkes and *Exanthemata*, red, blewish and black, but also Carbuncles and swellings behind the eares did often appear. For to such Sick persons whose pulse was not very quick and like the pulse of a sound person, their

Tongue

Tongue moiſt and they without thirſt, I gave wine with good ſucceſs; and I was enclined to continue the uſe thereof, by reaſon of the good the patients found thereby, and becauſe by the uſe thereof the Feaver was not at al augmented, neither did any thirſt or dryneſs of the tongue ariſe thereby. But in ſuch whoſe Feaver was more ſtrong, with thirſt, dryneſs roughneſs or blackneſs of Tongue, I wholly forbad wine, and kept them perpetually to the uſe of cooling and tart drinkes. But it is to be remembred, that in the firſt daies of the diſeaſe wine muſt never be given, leaſt the crude matter be too much agitated, but only about the ſtate, when the ſigns of malignity do begin more and more to ſhew themſelves. Howbeit *Zacutus Luſitanus* in the 93. Obſ. Lib. 1. of his wonderful Cures and Cafes, relates that in a peſtilencial Feaver, the patient being extream thirſty, with a dry and black tongue and paſt hope, he gave wine with moſt happy ſucceſs, ſo that the patient was cured therewith alone. But here that ſaying of *Cornelius Celſus* is to the purpoſe, Thoſe which *Reaſon* could not, have many times bin cured with *Raſhneſs*.

Diet being ordered, the cure muſt be begun by blood-letting, a Clyſter being premiſed: for bleeding is very convenient, both in regard of the Greatnes of the diſeaſe, the hot diſtemper and the putrefaction. But in defining the quantity of blood which is to be taken away, prudence is neceſſary, when in regard of the malignant quality, it does no good but hurt; for thereby the vital faculty is exceedingly weakened, and thoſe which are let blood after being poyſoned, are haſtned to their death. Therefore if a malignant and venemous quality be more than the putrefaction, which may eaſily be known by the proper ſigns aforeſaid, little blood muſt be taken away but if putrefaction be more conſiderable than the venemous quality, blood muſt be taken in a greater quantity. And conſequently, if by reaſon of a ſickly Conſtitution of body, and of putrid humors contained in the veins, the malignant Feaver have bin produced chiefly; blood-letting may ſafely be repeated, once, twice or thrice, until the Burthen of vitious humors contained in the veins be diſcharged. And that eſpecially if Inflamation of any of the Bowels be feared, which many times happens in malignant Feavers. Now bleeding muſt be uſed betimes and at the beginning of the diſeaſe for if the diſeaſe ſhal have taken progreſs and the malignity be diffuſed into the whol Mais of blood; bleeding does not only no good, but very much weakens Nature; ſo that very many Authors hold, that blood muſt not be let after the fourth day is paſt. And truly, foraſmuch as malignant Feavers do at ſeveral times differ much one from another, in regard of the different degree of Malignity; when they begin to be riſe once, diligent obſervation muſt be made, what good the Patients receive by bloodletting. For ſome Feavers being of the kind of Synochi, in which there is great putrefaction and little malignity, are much leſſened by Phlebotomy. And others whoſe Nature conſiſts very near wholly in malignity do become more pernicious by blood letting. This appeares in the true Peſt, in which by the experiment of many approved Authors, it is aſſured, that al which were let blood died. So *Wierus* relates in an Epidemical Catarrh which wandred al Europe over in the yeare 1580. in which al in a manner recovered, ſo that ſcarce one of a thouſand died; yet al that were let blood died thereof. Now we muſt diligently obſerve that which *Galen* hath taught us in the 14. Method chap. 10. that in the Cure of Carbuncles it is good to take blood til the Patient faint away, that the boiling blood which cauſes the Carbuncle may be plentifully evacuated. Whenas the ſame *Galen*, *Lib. de Curat. per vena*, *S.* Cap. 14. Commands that in Phlegmonous tumors blood be taken away, till the Color Change, unleſs the Patient be weak, or the Phlegmone malignant. Whereby is intimated, that *Galen* admits copious blood-letting in a ſimple Carbuncle that is void of malignity but not in a malignant and Peſtilent one; which agrees to an hair with the former Precept propounded by us.

As concerning the times and intervalls of blood-letting wherein it is to be iterated, this is to be noted: that if the diſeaſe proceed ſlowly, the blood-lettings muſt not be haſtened: for the patients ſtrength is too ſoon weakened; ſo that it cannot hold out, til al the morbifick matter be expelled. According therefore as the diſeaſe is moved; ſo the Phyſitian ought ſooner or later to let the Patient blood.

And there is a great Controverſie, whether Purple ſpots or wheales appear; Phlebotomy is to be uſed. For ſome account it to be an hainous Crime to let blood when the *Exanthemata* appear, becauſe at that time the humors are moved from the Centre to the Circumference, which motion muſt be by al meanes furthered; and by blood-letting the humors are put into a clean contrary motion, and the blood is drawn from the Circumference to the Centre, when as the inner parts being emptied, it muſt needs be that the blood contained in the outward parts, ſhould run inwards again; which *Galen* plainly teacheth in his 9 *Deſanit. Tuend. Cap.* 10. *viz.* That the Blood when a vein is opened, does flow back from the whol bulk of the body into the internal parts. And the ſame *Galen* in his Comment upon the 9 *Epidem.* Does conjecture that *Simon.* of whom *Hippocrates* ſpake haveing broad puſhes came out, had no good from his vomit, becauſe ſuch juyces were thereby to be evacuated, which took their Courſe to the Skin. Howbeit, by the more ſound Advice of Doctors it's concluded, that the Purple ſpots appearing in the beginning of the diſeaſe and on thoſe

dayes

dayes in which a vein is wont to be opened, if blood were not sufficiently taken away before, it must even then be drawn in immoderate quantity; Nether is there any danger to be feared by so doing; seeing that same Eruption of wheals, which comes in the beginning of the disease, is not critical but Symptomatical only, arising from an exceeding ebullition of blood, and from the fervency of malignant and putrefying Humors; and therefore the Motion of Nature cannot be hindered, when there is more to hinder. For in Case the Patients body being Plethorick, the Urine thick and red, you shal not let blood because of the *Exanthemata* or wheales breaking forth; Nature wil scarce be able to Master such a quantity of Humors, and it is to be feared least they should rush into some internal part of the body and breed therein a pernicious inflamation. Howbeit, blood at such a time must be sparingly taken away, not so as the veines may be emptyed, which might cause a retraction of the evil humors inward again but only so as to take away their over great abundance, which being taken away, the veines draw no new blood, but only fal a little together as it were and become a litle loosened so as to purse themselves the better, and consequently to be the better able to rule the remaining blood. And so is the motion and expulsion of Nature furthered which she endeavours towards the Surface of the body, for she being eased of part of her load wherewith she was oppressed, does more easily cast off the remainder, and drive the same out. Which we doe every where behold in our practice, whiles the very same day oftentimes, in which a vein is opened, yea verily sometimes a few hours after, plentiful sweats, critical and healthy doe break forth. And in truth, though nature were so strong that she could sufficiently rule al the redundant blood, seeing that in plethorick bodies the blood is wont to be thick and by these eruptions into the Skin, the thinner part of the blood only is evacuated, and the thicker abiding in the veines does more and more putrefie, and makes the disease much more dangerous. But I hold the most advised Course to be a little after the Blood-letting, to fasten many Cupping glasses, that the motion of the humors to the outward parts, may be hereby the more assisted; of the Administration of which cupping-glasses, we shal speak by and by. Now it must be diligently noted, as we said before, that we observe the time in which the *Exanthemata* do begin to appear. For if it be in the beginning of the disease and before the fourth day, in which time their breaking forth cannot be critical, and no help comes to the patient thereby; but the symptomes do rather grow more vehement, in wh ich regard blood-letting ought by no meanes to be hindred. But if they break forth after the fourth day and that in great quantity, so that the sick party is thereby bettered, and the symptoms lessened; it is much betteer to abstain from blood-letting, and to fix many Cupping-glasses with Scarrification, that the motion of the Humors outwards may thereby be wel furthered.

What wee have hitherto said of blood-letting, is to be understood of opening a vein in the Arm, which does quickly diminish the blood. Howbeit somtimes, tis very profitable to open the inferior veins viz. if the patient be weak, and cannot suffer a reiteration of the former phlebotomy. But this is especially good in women; for it is as *Ribasius* saies Lib. 7. Chap. 10. proper to women and very efficatious, because it imitates the manner of their Natural evacuations. Yea verily & when they want their courses that kind of bleeding is proper for women, because naturally they have much blood in these veines which are nigh the womb. Also it is good for such, in whom we fear a translation of the matter into the brain, which is often wont to happen in these Feavers and to cause a Phrensie. Which may be perceived easily (as we said in the prognostick) by the Urins thin, white, and void of Color; and when the Urins are so, it wil be very good to open the inferior Veines. Also *Oribasius* relates in the forecited place that he was taken with a pestilencial Feaver, and having two pound of blood drawn from his inferior veines, he recovered: and al that used the like bleeding, were recovered.

The opening of the Hemorrhoid veines by Horsleeches workes the same effect. For seeing by this meanes the blood is drawn out by little and little, there follows little abatement of strength. Yet is the blood revelled from the inmost bowells, where is wont to be the Heat and the Matter which foments the disease. and this is special good for Melancholick persons, because in such, Nature is wont to evacuate earthly blood, by these waies.

After Sufficient blood-letting, Revulsions must be celebrated by Cupping-glasses, both dry and with Scarrification. Dry ones, when we would only revel: but Scarrified ones when the redundancy of blood is not wholly taken away by blood-letting, which the Patients strength could no longer bear. For, blood is drawn by Cupping with much less expence of strength and besides the venemous spirits lurking within, are thereby drawn to the Surface of the body. But Authors agree not touching the places where Cupping-glasses are to be applied: for some and especialy al Italian Physitians very neer do hold they ought to be applied to the inferior parts viz. to the thighs and buttocks and no where else, that the venemous matter may be drawn from the Heart to the most distant parts: but that they are not good to be fastened to the shoulder blades or the Back, because they draw hurtful humors from other parts towards the Heart. Others are of a contrary opinion, that Cupping-glasses are best to be applied to the shoulders and back, viz. that poisonsom humors and vapors may be drawn from the Centre to the Circumference which motion is most suitable to the

Motion

motion of nature in this diſeaſe: But I am of opinion that Cupping-glaſſes ſhould be faſtened to each and every of the places aforeſaid; and that is is good to ſet them firſt upon the lower parts, that ſom portion of malignity may be drawn back unto the more remote parts: But becauſe the Glaſſes fixed in thoſe parts, cannot ſufficiently draw back the venemous humors and vapors from the heart and its neighboring parts; it is good to faſten them likewiſe to ſuch parts as are neer the heart viz. To the ſhoulders and back. For by this means the motion of nature is very much furthered, ſeeing that experience doth teach that the eruption of the ſpots is commonly in thoſe parts which by frequent fixing of cups is much furthered. Which *Mercatus* hath moſt elegantly delivered in theſe words. *Howbeit in the mean time, while the Body is plied with other medicaments, ſmall cupping-glaſſes muſt either many at once, or a few frequently be applyed. And if the venom of the diſeaſe or the weakneſs of the Patient be much, they may be fixed without any, or with very little ſcarrification. In which kind of uſe and upon that occaſion, it is the beſt courſe to ſcarrify thoſe which are ſet upon the Back over against the heart which experience hath taught to be of ſuch moment, that Anxieties & Inequalitie of the Pulſe, and other grevious accidents have thereupon ceaſed. Wherefore we muſt not ceaſe applying of them, until the venemous accidents are mitigated or wholly taken away.*

But the Reaſon urged by thoſe of the former opinion, is of ſmall moment for the fear leſt ill humors ſhould be drawn from other parts unto the Heart. For this reaſon might peraduenter be of ſom force: if they ſhould be uſed at the beginning of the diſeaſe, the whol body being ful of humors. But after an univerſal evacuation ſufficiently procured by blood-leting they can cauſe no ſuch danger; which is made manifeſt by a clear example drawn from a pleuriſie, in whoſe beginning, if the pained ſide ſhould be cupt, doubtleſs it would bring the Humors more and more to the greived part. But when after often blood-letting a cupping-glaſs is fixed upon the pained ſide, it doth not only draw nothing from other parts to the place affected, but that humor which is fixed and wedged into the part is thereby powerfully drawn out, ſo that ofttimes the diſeaſe is thereby perfectly cured. Although in this diſeaſe, there is more danger of drawing Humors to the part affected, becauſe it is in a manner externall and neer the Cupping-glaſs

Zacutus Luſitanus in *Obſerv.* 13. *Lib.* 5. *Praxeos admirandæ* doth very much commend cups with ſcarrification, faſtened neer the groins and armpits. for by ſuch cuppingglaſſes ſo fixed the vitious humor is drawn to the ignoble parts and to thoſe common Emunctories, unto which nature is wont to expel the ſame.

Among revulſive remedies, Frictions may very will be reckoned, being often exerciſed upon the extream parts of the Body with a courſ cloth. But that Friction is moſt commended. which is made upon the whol Body with the Liniment of Aetius, which is thus compounded.

Take oyl of ſweet Almonds and fountain water of each three ounces: Sal nitre two drams. Boil them together til the water be conſumed, and with this Oyl warmed, let the patients body be rubbed al over with the hands being dipped therein. *Aetius* doth preſcribe Oyl of Savin, but becauſe it is too hot. Oyl of ſweet Almonds was by *Baptiſta Montanus*, fitly ſubſtituted in its place. This oyntment doth open the pores of the Skin, that nature may more fitly expel the venemous vapors thereby.

Veſicatories do likewiſe powerfully draw out evil and venemous juyces and ſerve for revulſion being applied in divers parts of the body: Commonly they are applyed to the hinder part of the neck; for they do both draw out the matter, and drive it from the head, and ſerve well to cure ſuch ſleepie ſymptoms as are uſual in theſe diſeaſes. But where great malignity doth poſſes the whol Body and grevious ſymptoms afflict the patients, one veſicatory will not ſuffice but more muſt be laid on: I am wont when the diſeaſe is very violent to lay them on in five places viz. The Neck, both the Arms on the inſide between the bending of the Arm and the Shoulder, and to both the Thighs, in the ſpace between the Groyn and the Knee, with happy ſucceſs.

The great profit of this Remedy we may learn from *Galen*, who in *Lib* 5. *Method. Cap.* 12. relates, that of a peſtilential Feaver al recovered, who happened to have exulcerations in divers parts of their Bodyes; becauſe the morbifick matter was evacuated by thoſe ulcers. And becauſe the uſe of theſe Veſicatories do often caus the Strangury (for the Cantharides do by a peculiar propertie affect the Bladder) it wil be good when they are applied, to give the Patient emulſion that may temper the acrimony of the urine. This ſymptome may likewiſe be prevented by mingling the poudered Seeds of Ameos with the veſicant plaiſter, which ſeeds have the faculty to keep the Cantharides from hurting the bladder

Amongst Revulsive Medicines may likewise be mustered, the Cataplasm of Radishes commended by *Crato*: The Radish (saies he) because it powerfully drawes the malignity of matter it is good to apply the grois pouder or scrapings thereof to the feet, having first clensed them with salt and vineger. And the following Cataplasm may be better for the same purpose.

Take scrapings of a radish and the two Briony Roots of each two ounces, seeds of Garden Crosses one ounce. Grains of Paradise half an ounce, Sea Salt three drams, Mix al and sprinkle them with the strongest Vineger, and make them up into a body, with a sufficient quantity of soft sope, til it become like a Cataplasm, & apply it warm with tow to the soles of the feet, when the patient is disposed to sleep.

To this Cataplasm may profitably be added leaves of Rue, Nettle, Sage, Scordium, Pidgeons dung, juice of Rue and Vinegar.

A Cataplasm of Snails beaten hath the like Efficacy, and powerfully drawes unto the nether parts hurtful humors and vapors, as *Galen* highly commends the same, for powerfully attracting and dissolving the waters of Hydropic Persons.

These revulsory Remedies have place during the whol Course of the disease after universal evacuations viz. Phlebotomy and Purgation: of the use whereof we are now to speak, that so we may pass from Chyrurgery to Pharmaceutick Remedies.

Now it is much controverted among Practitioners, whether we ought to purge in the beginning of malignant Feavers. Many reject purging at that time, not only because of that wel known precept of *Hippocrates*, that Concocted humors are to be purged, but crude humors not: but also because in this disease the malignant humors are too much exasperated by purgations, and diffuse their malignant quality the more abroad, and by sharpely provoking of Nature, they produce pernicious fluxes wheras otherwise of themselves in these Feavers, melting fluxes do often arise and bring the patients to their long home. But others contend, that sometimes there is such plenty of evil and venemous humors in the first passages, that unless they be first removed by purging, or very much lessened, they infect the rest of the humors, so that Nature cannot master them, however assisted by antidotes and corroborating medicaments.

We conceive this Controversie may be thus composed; viz. that in the beginning of this disease we must abstain from purgations for the reasons fore alleaged; and that the sink of putrid humors which lies in the first passages (which the truth is do very much hinder the Cure) be drawn away rather by frequent Clysters, than purging Medicaments. Howbeit, if their be so great a quantity of il humors in the first Region, that it seemes impossible sufficiently to evacuate the same by Clysters (which chiefly happens, when evil humors abound in the stomach, and then there is great loathing of meate, bitterness in the mouth, stomach sickness and vomiting) or when there are many worms, it is very good in such a Case to draw away the matter by a purging medicament that the morbifick matter contained in the veines, may afterward bee the more easily subdued. Which matter it is that cannot be purged before concoction, and of that must the saying of *Hippocrates* be understood, that onely concocted humors must be purged. But the matter contained in the first region and that mass of excrements may be drawn away without any preparation or concoction premised, and is ordinarily purged out only by Clysters, as we said before. Now those Medicaments which we give to purge the first Region, must be chosen from amongst the most benigne and gentle purgations, avoiding the most vehement, yea and the middle sort too, so that we may safely use Cassia, Manna, Tamarinds, syrup of Roses, and Cichory compound. And it is Scarce lawful to arise to Senna and Rhubarb, or at least to mix them with the others in a smal quantity, when a great abundance of evil humors do afflict the patient. The former of these Medicaments were propounded in our cure of continual putrid Feavers, and how we should purge in the beginning of them.

But Clysters are to be used, not only in the beginning of the disease, to free the first region from excrements; but they are to be given in the whol Course of the Disease, if the patient be not loosbellied, and that every or every other day. For by those the daily excrements are brought out, and some portion of the Morbifick matter is also by little and little drawn away. Likewise the humors mounting upwards, are brought down to the places more suitable to the intent of Nature. Now these Clysters must be compoted of an emollient and refrigerating decoction, adding gentle laxatives; for sharpe ones and scammoniated, do over much irritate nature to excretion and often produce pernicious fluxes.

And the truth is tis best in the vigor of the disease to put no purgers into the Clisters, least a Looseness be caused which is very incident to this disease, so that they are rather to be of the nature of an internal fomentation, then of a laxative Medicine.

But if in the Course of the disease the belly seem to be loose: we must not therefore abstain from Clysters; but we must use such as do moderately deterg and refrigerate, and in Juleps we must dissolve syrup of Pomegranates with pouder of Corral prepared.

While the foresaid Medicines are using, wee must endeavor to correct the Feaverish Heat, Putrefaction and malignant quality, with these following Medicaments.

And

And firſt of al the altering Juleps which were propounded in the Cure of continual putrid Feavers wil be very convenient, of the decoction cheifly of the Rootes of Sorrel, Cichory, Graſs, Bugloſs, Sharpe-pointed Dock; the leaves of Endive, Cichory, Sorrel, Pimpernel, Maiden-hair and Tamarinds. Whereunto muſt be added ſuch things as by a Specifick property do fight againſt the venemous quality, commonly called Alexipharmaca or Antidotes, as rootes of Cinktoyl, Tormentil, white Thiſtle; leaves of Scordium, Carduus, Scabious, Scorzonera, Meddow-ſweet; Flowers of Marygolds, *Veronica rubra*; bitts of Lemmons or Citrons and their ſeeds; Skinns of odoriferous apples, Shavings of Harts-horn &c. with the Syrups of Lemmons, Pomgranats, Vinegar, of the juyce of Sorrel &c. and we muſt frequently mix tart things with them ſuch as juyce of Citrons, or of Lemmons, Spirit of ſulphur or of vitriol: for they do mightily reſiſt the putrefaction and the venemous quality.

Touching the Pome-Citron *Athenæus* reports, that once in *Ægypt* certain condemned men were expoſed to death by biting of beaſts, and they were bitten indeed by the Aſpes, but had no harm thereby: becauſe as they were led to execution, a Woman out of Pitty gave them ſome Pome-Citrons to refreſh them & quench their thirſt: which having eaten, they received no hurt by the biting of thoſe venemous Beaſts. Now al parts of the Pome-Citron have an antidotary quality; and therefore it is profitably cut in pieces rind and al, and boiled with Rootes and Herbs aforeſaid to make juleps; and it is likewiſe to good purpoſe ſteeped in ſmal drink which the patient ordinarily uſes, unto which it gives a fragrant ſmel from its rind and a tartnes from its pulp: howbeit the juice only hath a cooling faculty.

The acid ſpirits of ſulphur and vitriol are highly extolled eſpecially by Chymiſt, and their rare vertues approved by long experience have cauſed that long ſince they have bin entertained by Galeniſts, and ordinarily preſcribed. And that it may appear how highly the Chymiſt eſteems of them let it ſuffice to cite the words of *Mindererus* alone in his 18 Book *De Peſtilentia*, where treating of ſpirit of vitriol and ſulphur, and of other Medicaments made of ſulphur: *There is* (he ſaies) *no putrefaction whoſe neck they break not; no infection which they do not overcome; no pravity of Humors but they can conquer. Verily* (to deal clearly) *if I ſhould be forbidden or hindered from the uſe of vitriolated medicaments, I ſhould never come to cure the Plague, or alwaies without my weapons.*

To the ſame Juleps may ſomtimes be added Sal prunella becauſe it powerfully cooles, and extinguiſhes the Feaveriſh heat; and it hath beſides a kind of diaphoretick faculty, by means whereof it is excellently fitted for malignant Feavers.

In place of Iuleps for the more delicate ſort of Patients, may be ſubſtituted ſomtimes medicated Broaths, made with the Leaves of Borrage, ſorrel, Pimpernel, and other hearbs that are not offenſive to the palate, with Skinns of fragrant apples, with the pulp and juyce of Citrons and a chick; and to them ſal prunella may ſomtimes be added, for to cool more effectually.

Alſo Emulſions may be made of ſweet Almonds, and the greater cool Seeds, with the Decoctions of the Juleps. And for the greater quelling of the venemous Quality, to the aforeſaid Seeds may be added Seeds of Citrons, of Navew or Turnep, and of Carduus Benedictus. And to commend the taſt, the aforeſaid Syrups may be mingled therewith.

Now in the whol Courſe of the Diſeaſe, Antidotes muſt be uſed, not only mingled in Juleps, Broths and Emulſions, as was ſaid before, and ſhal be further declared: But alſo contrived into other forms. And becauſe al are not to be uſed indifferently, nor at all times of the Diſeaſe; that their right Uſe may be wel diſtinguiſhed, they muſt be ſorted into four Tribes. The firſt conteins thoſe, which beſides the Specifical Quality by which they reſiſt poyſon, are cold and dry and moderatly aſtringent; and conſequently they hinder putrefaction, ſtrengthen the Heart, bridle the Venom, that it cannot be ſo eaſily ſpred into the whol Body, and hinder the diſſolution of the parts thereof by a kind of compreſſion; as Bole-Armoniack, Terra Sigillata, Coral, Cinkfoyl Roots, and the Roots of Tormentil. The ſecond Tribe contains ſuch as by their coldneſs and the tenuity of their ſubſtance do reſiſt putrefaction, and reſtrain the venemous Quality; as Juyce of Lemmons, Spirit of Sulphur and of Vitriol, as al acid things, and Vinegar it ſelf. The third comprehends hot & Diaphoretick medicaments, which expel venemous Humors and Vapors from the Heart, and bring them from the Centre to the Circumference; as Angellica, Zedoary, Dictamnus, Meddow-ſweet, Scordium, Carduus, Scabious, Treacle, Mithridate, Treacle water. The fourth contains ſuch as by a Specifical vertue, without any exceſs of the firſt Qualities, do oppugn the venemous Quality; as Bezoar ſtone, Harts-horn, Unicorns-Horn, Troches of Vipers, and ſuch like.

The Medicines of the Firſt, Second, and Fourth Tribe, do beſt agree in the beginning and the Augment; and thoſe of the Third Tribe in the ſtate and Declination. Now theſe medicaments muſt be exceedingly varied, and diverſly mixed, according to the different degree of malignity or putrefaction; according to the various Intention or Remiſſion of the Feaver; and according to the divers temperaments, Sex and Age of the Patient; and according to other Circumſtances: the

Determination

determination whereof depends wholly upon the Judgment and Prudence of the Physitian, and cannot be determined by any certain Rules. Only one thing I shall advice you of, which is very well known, viz. That when there is a vehement burning of the Feaver, we must chiefly use Refrigerating & cooling things; but the hot and Diaphoretick must not be medled with; which notwithstanding wil be very proper, when the Feaver is more remiss, and the malignant Quality is that which most offends. Of these Tribes therefore, divers medicaments may be Compounded, according to the judgment of the Physitian. But least yong Practitioners should be wholly destitute of some forms, I shal ad a few, in imitation whereof, they may devise a thousand others, as the occasion of practise shal require.

Take Roots of Sorrel, Bugloss and Tormentil of each one ounce. Leaves of Endive, Cichory, Sorrel, Pimpernel, of each one handful. Tamarinds one ounce. Boil al to a pint. In the strained Liquor dissolve syrups of Pomegranats and Lemmons of each an ounce and half. Make of al a Julep to be taken at thrice: adding to every dose a dram of Confection of Hyacinths bezoar-stone six graines.

This form of a Julep, may do wel in the beginning of the Feaver. But if the Feaver be very high and the Patient of a Chollerick constitution, a dram of Sal Prunella may be added to every dose, or as much spirit of vitriol or sulphur, as may suffice to make it moderatly tart, or both of them together. But in a Feaver not very high may be added to the decoction, Rootes of the white-Thistle and of Cinkfoyl, Leaves of Scordium and Scabious.

Take sweet Almonds blanched one ounce: Seeds of Melones, Gourds, Navew, Citrons and Carduus of each two drams: Beat them together in a Marble morter, pouring on by little and little a pint and half of the aforesaid Decoction; Syrup of Lemmon three ounces; Sal prunellæ three drams. Make an Emulsion for three Doses, to be taken twice or thrice in a day.

In the whol courle of the Disease, let the Patients use in their Broaths the Confection of Hyacinths, or the following pouder, which is not unpleasant.

Take of prepared Coral, Pearls prepared, shavings of Ivory Harts-horn, and Bezoar, of each one scruple. Mix them. Make of all a pouder, of which give half a scruple in every mess of Broath.

The Innovators of this Age, who endeavor to banish Gemms, Pearls, Coral, and al Cordial things from the use of Physick; and cure all Feavers, even those that are malignant, with Blood-letting and meer refrigerating Apozemes; may be convinced with this one Experiment, at least touching Coral and Pearls: which being poudred, if they be infused in Vinegar, Juyce of Lemmons, Spirit of Vitriol, or *Aqua fortis*; they take away all the Acrimony of those Liquors. Whence we may gather, that the same Medicaments taken into our bodies do sweeten and molifie the acrimony and malignant quality of humors and reduce them to a moderation. They which have tasted the solutions of Pearles and Corals, made in juyce of Lemmons or distilled Vineger, do know the truth hereof very wel.

Where the malignant and venemous quality is very rife *Alexipharmaca* or Poison-quellers, are to be given in Juleps, broths the ordinary drink of the Patients, and in al they take in, that by a perpetual and incessant Conflict, the troublsom Enemy may be opposed.

Bezoar stone is given alone to the quantity of five or six graines, with water of Mead-sweet, Scorzonera, Carduus, or such like not only to oppose the malignant quality, but also to help the Diaphoretick motion; for this stone is reputed for a sweating Medicament, which notwithstanding many approved Authors doubt of, because they could never see any sensible effect, by the giving thereof. And truly (to speak out my mind) there can no great Confidence be put in this stone; because although we may allow to the true and genuine bezoar stone, those faculties which are hereunto ascribed; yet because the great price thereof Causes that many Traders take a world of paines to sophisticate the same, we can now a dayes hardly get any but counterfeit. A clear testimony whereof is, that the writers of the Indian Histories, do aver that Bezoar stone is very scarce and of great price among the Indians themselves; when we have plenty of them and cheap enough.

More credit should of right be given to that same Root, which the Spaniards have in this Age of ours brought out of Italy; which they cal *Contra yerva* which signifies the Poison-pelting or Antidotary Herb, because the pouder thereof is a present remedy against poisons, and drives them out of the body by sweat, or insensible transpiration. And they Conceive that Plant to be the Common ordinary food, of Those beasts in which the Bezoar stone is found, and that the stone hath its vertue primarily from thence. A scruple or half a dram of this Root poudered may be given in Carduus matter, or other medicaments.

Mendererus cries up this following pouder.

Take Sugar Candy three drams, white-ginger two drams. Camphire one dram. Make al into a pouder; the dose one dram in some convenient liquor. But the Author doth advise that in great paines of the head or stomach, Camphire is warily to be used; which yet he highly commends in pestilential diseases; and avouches that seasonably given, it doth more good than the most precious bezoardick medicaments. I conceive the pouder is too hot because of the Ginger, and I have

composed

Compoſed this following in imitation thereof, Which I have vſed with happy ſucceſs.

Take mineral Bezoar three drams: Sal prunella two drams: Camphire one dram. Make of all a pouder: Give one dram at a time in Carduus water, or ſom other convenient Liquor.

Pouders may likewiſe be made of the fragments of precious ſtones whoſe vertues many deride & others as much admire; ſo that from the times of the Arabian Phyſitians to our days many compoſitions are prepared of them in the ſhops, as *Electuarium de Gemmis, & Confectio de Hyacintho.* But in peſtilential and venemous diſeaſes many have extolled the great vertu of the Smaragd, amongſt the reſt *Avenzoar*, *Mindererus*, and *Zacutus Luſitanus*. *Avenzoar 2 Teiſir. tract. 1. Cap.* 5. That himſelf being poyſoned, was thereby cured. *Mindererus Lib. de Peſtilentia Cap*, 15. Relates that to a woman in a Peſtilential Feaver who abhorred al Phyſick, he gave the following Pouder which ſhe might eaſily ſwallow haveing neither taſt nor ſmel; which when ſhre had taken the conbuſtions of cruel ſymptomes being allaied, and the diſeaſe turning to health, ſhe was cured.

Take of the Smaragd ſtone prepared, Eaſt-india Bezoar of each ſix grains: Hyacinth prepared three graines, mix them. Make of all a pouder for one Doſe.

And *Zacutus Luſitanus*, relates that a Portugal Gentleman, haveing through poyſon fallen into a looſneſs and a Conſumption, from which no abſterſives, aſtringents or Antidotes could free him; he was cured only by the Smaragd, the pouder whereof to the quantity of twelve grains he tooke every other day in conſerve of quinces, and when he had taken it five times he was cured of his Looſneſs.

The Phyſitians of *Mountpelier*, doe uſe in this Feaver as a moſt profitable Antidote, no ways heating; the Troches of Vipers, which are uſually prepared as an ingredient into Andromachus Treacle, which they give from one ſcruple to half a dram in cordial waters or Juleps.

Yet the fleſh of vipers were better being dried, which hath no venemous quality (as people imagine) but is rather a potent Antidote; which is much abated by boiling; for it is boiled in water to make the troches. So that we ſee greater effects wrought only by the heart and Liver of vipers, being dryed, without any other preparation

The Alexipharmick Medicaments of the third Tribe viz. The Diaphoreticks and ſweaters muſt be given only in the ſtate or declination of the diſeaſe, as was ſaid before. which is to be underſtood, when they are given in a feaver ſimply malignant or ſpotted: for in the true Plague they muſt be uſed at the very beginning, that the venemous qualitie which would quickly kill the Patient may be ſuddenly and potently oppoſed, and the malignant vapors diſcuſſed. Yea verily and in ſimple malignant Feavers, if the venemous quality ſeem to be greater than the putrefaction they are likewiſe to be given at the beginning in ſmall quantity; making choyce of ſuch as are leaſt hot, mixing them with Juleps and other cooling medicines formerly precribed.

Now of theſe Diaphoretick medicaments there are divers degrees, for ſom are more hot, as Angelica, Zedoary, Dictamnum, Treacle, Mithridate, Treakle water; which are never to be given when the heat of the Feaver is at the higheſt, but only when the ſame is much abated, and when the ſigns of malignity do very much prevail. But others are leſs hot, as Scabious, Carduus Mead-ſweet, Scordium, which may ſafely be given, though the Feaver be in it's height. And theſe diſtinctions are carefully to be obſerved in practice. and as for the formes of particuliar medicaments, every Phyſitian can vary them, according to the different degree of the Feaveriſh Heat and of the Malignitie. But I ſhall here diſcribe ſuch as are moſt effectuall

Take water of Mead-ſweet and Carduus of each two ounces: juice of Lemmons one ounce: old Treakle half a dram, two ſcruples or one dram, according as the fear of heating the Patient is more or leſs. Mix al into a potion. give it warm and cover the patient ſomwhat more than ordinary. if there be great vehemency of ſymptoms, new Treakle wil be more convenient, becauſe of the vigor of the Opium by means of which the vehemency of the ſymptoms will be allaied, and the boyling of the Humors wil be reſtrained: yea and ſomtimes when it ſeems unconvenient to uſe Treakle as in the beginning of the diſeaſe eſpecially, *Laudanum Opiatum* given to two grains & mingled with Antidotes, do much good. For by the Narcotick and congealing power thereof thoſe fervent Spirits ſo vexatious to the Heart, are as it were fixed; aud the morbifick matter (which is moſt pernicious while it is in motion) is thereby ſtopped and remains in a manner unmoveable, whence it comes to paſs, that Nature not being provoked by the malignant humors and ſpirits, recollecting her ſtrength, doth more eaſily apply unto her ſelf the vertu of Antidotes

Aqua theriacalis seems fit to be preferred before Treacle it self. For seeing it is exceeding thin and spiritous, it doth more easily and suddenly peirce into and pass through the whol body and Cause sweat. And because there are many descriptions of Treacle water, their dose ought to differ according as they are compounded of Simples more or less healing. I shal in this place propound the chief.

And first of al, the Treacle water of Bauderon is most excellent, because it is exceeding temperate. For there goes no other Liquor thereinto than Vineger and Juyce of Lemmons, by which the hot Ingredients are very much tempered, and therefore it may be given from half an ounce to an ounce in Sudorifick decoctions or waters. And although this is less heating than any of the rest prescribed by divers other Authors; yet have I invented another, easily made, which is more cooling, and does no less oppose the Feaver than the malignant quality, and may consequently be used in the whol course of the disease, at any period thereof. Its composition is as followeth.

Take twelve fresh and juycie Lemmons. Take away the bark or rind and the seeds and press out the Juyce, and ad thereunto the said rindes and seeds; and three pints of juyce of Scordium, juyce of sorrel, of Goates Rue; of scabious, and Carduus, of each one pint. Shavings of Harts-Horn four Ounces. Old Venice Treacle six ounces. Let the rinds of the Lemmons be cutt into thin chips, let the seeds be beaten, and such herbs as have little juyce, let them in the beating be moistned with the juice of Lemmons and let al be distilled in balneo Mariæ. Of the water give one ounce by it self or mixed with other Liquors.

The hotter sort of Treacle waters are made with white Wine or with spirit of wine; which must be warily given and in lesser quantity; yet they pierc more than the other and move sweat, and are cheifly used in the true Pestilence. Howbeit in some Cases they may by the prudent Physitian be used. Among the many Descriptions of such Treacle waters, I wil propound in this place, two of the most excellent.

Take roots of Angelica, White-Thistle, Gentian, Tormentil, Zedoary, Harts-Horn, of each one ounce. of the three sanders, of each half an ounce. Treacle three ounces, Camphire a scruple. beat al and steep them three daies together in two Pints of strong white-wine, in a warm place. Then distil Them in Balneo Mariæ, *and keep the water for use, the dose is, from two drams to half an ounce, in refrigerating Juleps, adding spirit of vitriol to correct the Inflamation thereof.*

Take Spirit of Wine, very wel rectified one pint and an half. old Treacle eight ounces. Elect Mirrh four ounces. Oriental Saffron one ounce. Camphire half an ounce. Infuse al for twenty four hours in Balneo Mariæ. *afterward stil them in the same Bath; and you shal have a very effectual water.*

The Chymists do exceedingly cry up their *Bezoardica Mineralia*, because they are Sudorifick or Diaphoretick at least and yet do not at al heat: which they endeavor to prove by their having no taste, in which regard they are eatily taken even by the most nice Patients, that loath unpleasant medicaments. They also commend their Medicine which is called by them *Mixtura Simplex* or *Mixtura Spiritalis*, made of Treacle Water Camphorated, spirit of Vitriol and of Tartar: and they mingle a dram thereof in Juleps and antidotary Potions.

A Physitian that undertakes the Cure of malignant Feavers ought to have divers Antidotes in a readynes, and to change them ever and anon, least nature be too much accustomed to one and the same, and slight the virtue thereof. Also the nature of the venemous quality is not alwayes one and the same but very divers according to the diversity of the patients bodies. So that what hath helpt one, wil do another no good; so that when he hath for some time used one antidote, he must try another and another.

While the foreiaid diaphoreticks are using, if we have a Mind at any time to help their Operation, that they may more powerfully bring out the poison into the surface of the Body, some external helpes may be used: viz. Cupping-glasses, both dry and with scarification, many and often set on and Vesicatories, of which we spok before; which are most convenient in the state of the disease and at what time Sudorifick Medicines are given; as also Oyl of Scorpions of Matthiolus, which is much commended by al Practitioners; for it calls forth the poyson residing in the profound parts of the body unto the external parts, And therefore the Emunctories of the body, as the Groines and Armpits, with the Pulses of the Templs, Hands and Feet, ought frequently to be anointed with this oyl warm; viz. thrice or four times in a day, or else every third hour. Where this Oyl is not to be had, a Liniment may be made of Treacle dissolved in Juyce of Lemmons, adding a little saffron and Camphire.

If at any time Nature being oppressed with the malignity of the Poyson and overcome, and seem not to act, but as it were to submit her self with hands bound to the mercy of the humor. The strongest diaphoreticks, are then to be given, in a large dose, that the daunted mettle of the heart may be as it were spurred up, And then the strongest sorts of Treacle waters and Bezoardicks which have greateft force to penetrate, must be used: and the addition of Camphire wil much help their penetration and outwardly, at such a time this following fomentation, wil wonderfully assist the operation of

such

ſuch things as are taken in, and wil help to drive out the malignant vapors. For by this Method, many have bin reduced from the Gates of Death.

Take roots of Angelica and Gentian, of each two ounces, Leaves of Bawm, Origanum, Scordium, of each two handfuls. Seeds of Carduus benedictus one ounce. Flowers of Chamemel, Mullein, Melilot, St. Johns wort, Centaurie the leſs, Stœchados, Roſemary, Marygold, of each two pugills. Make a decoction of all in water, adding towards the end a little white-wine, wherewith foment the feet, Groins, Armepits, and ſides warm with ſponges.

If drynes of the tongue, thirſt and other ſignes do ſhew that the Feaver doth prevail as much as the malignant quality, we muſt abſtain from the fomentation, and inſtead thereof let a Hen cut down through the Back, or the Lungs or Caul of a Wether new killed, be applied to the patients Belly.

In the whole Courſe of the Care, the greateſt Cure of al muſt be to preſerve the patients ſtrength, which is much dejected by the Venemous quality. It is beſt kept up, firſt by Convenient broths made with a Capon, unto which, when neceſſity urges may be added the diſtilled broaths of fleſh, and eſpecially the *Aqua Caponis* which is made in *Balneo Mariæ per Deſcenſum*, as the common manner is now to make it. Confection of Hyacinths given in broaths, doth repaire the ſtrength, and doth oppugn the malignant quality. In the ſame broaths Gelly of harts-horn, doth ſatiſfie both Endications. If the ſtrength of the Patient be very much decaied; we may make bold with *Confectio Alkermes*, provided the Heat of the Feaver be not very violent. And finally, wine is the moſt cordial thing in the world, of the uſe whereof in this diſeaſe, I ſpake before, treating of the Patients Diet. The only ſmel of wine doth much refreſh the Patients ſtrength, and much more a toaſt dipped in Canary and Roſewater and ſo held to the Noſe.

And in this Caſe alſo *Confectio Alkermes* and *de Hyacintho* are wont to be put into alexipharmical Potions. Or in extream dejection of ſtrength, Potions merely cordial may be thus made.

Take *Orenge-flower water and Roſewater of each one ounce and an half. Confectio Alkermes one dram. Syrup of Apples one ounce. Juyce of Lemmons three drams. Make all into a potion. If the Feaver be not intenſe Cinnamon water may be given to the quantity of one dram or three drams. and ſometimes Amber Grieſe may be added, to the quantity of five Granes or Seven. Neither in extream Weaknes of the Patients muſt we ſo much fear thoſe hot cordials, that we ſhould refuſe to ſave the patient from preſent death, for fear of augmenting the Heat of the Feaver for we muſt alwaies regard that which is moſt preſſing, and when the patient hath a little recovered ſtrength if the hot cordials have made ſome increaſe of Heat, it may afterward be tempered by potent coolers, as Sal Prunella, and Spirit of vitriol, mixed in juleps and ordinary Drink. This Method being obſerved by the diſcreet Phyſitian, in his adminiſtration both of Strengtheners and of hot Antidotes and ſweaters; wil prove happily Succeſsful.*

After theſe things, muſt follow the Application of Epithems and Liveing Creatures to the Region of the Heart; fomentation of the Genitalis with Confectio Alkermes diſſolved in Wine; Bags to be laied upon the ſtomach, and other both internal and external Medicaments, largly by me deſcribed in my Chapter of Weaknes or Decay of ſtrength.

As for Epithems, there is Caution to be uſed in their application, Becauſe very many Authors do wholly reject the uſe of them; becauſe they are wont to be compounded of refrigerating and repelling things; viz. of the waters of cooling herbs and Vinegar, by which the venemous quality is beaten back to the heart, and the tranſpiration thereof, which ought alwaies to be promoted, is hindered. But this reaſon cannot hinder the uſe of Epithemes, ſeeing we may compound them of cordial and diaphoretick waters that have repelling no or aſtringent quality in them, and without Vinegar (which ſome do yet allow) adding cordials thereunto; and by theſe things mingled together, Epithems may be made, not only which ſtrengthen the heart, but alſo open the pores of the skin, that through them the malignant vapors may more eaſily tranſpire. Of ſuch Epithems this may be an example.

Take *waters of ſcabious and Carduus, of each four ounces. Oreng-flower water two ounces. Confectio Alkermes two drams. Powder of Diamargaritum frigidum one dram. Saffron and Camphire of each ſix grains. Make an Epitheme and applie it warm to the Region of the Heart frequenly.*

Take *Confectio Alkermes half an ounce, Powder of Triaſantalon and Diamargaritum frigidum, of each one dram and half, a little Orengflower water. Make of al a Liniment to be applied to the part after aforeſaid the uſe of the foreſaid Epitheme.*

Neither muſt we here omit ſuch Epithemes as are to be applied to the parts under the ſhort ribbs, becauſe of the reaſons of their uſe propounded in the Cure of putrid Feavers, from whence the Materialls muſt alſo be fetcht.

At length whenas the malignant and venemous quality is maſtered by the Remedies aforeſaid

ſaid, and the Feaver abated and the Diſeaſe begins to decline, and the ſigns of Coction do manifeſtly appear; purgation muſt be uſed, which by the experienced Phyſitian may be accomodated to the ſtrength and conſtitution of the Patient. I ſhal here, for the ſake of Beginners propound only one example.

Take Senna half an ounce. Annis ſeed one dram. Leaves of Scabious and Scordium, of each half an handful. Liquoris three drams. Boil al to three ounces. In the ſtrained Liquor diſſolve the infuſion of four ſcruples of Rhubarb Made in bugloſs water with yellow Sanders. Manna and Syrup of Roſes of each one ounce. Make all into a Potion.

And for the moſt part one purge is not ſufficient in the declination of the diſeaſe when the Patient begins to recover health; but purgation muſt oftentimes be repeated twice or three times at convenient diſtances, that the evil humors may be perfectly rooted out. Otherwiſe there wil be danger of a Relapſe, or at leaſt the Patient wil be long in Recovering prfecte health. Becauſe though nature; be ſtrong enough to maſter the reliques of the Morbifick matter yet can ſhe not do it but in a long time and in the mean ſpace the body is long in recovering its former ſtrength.

For the perfect Compleating of this Cure, it remaines onely that we ſpeak ſomething of the Correction of ſuch ſymptomes as happen in this diſeaſe. Now their cure is very near the ſame which hath bin propounded in the ſecond ſection of this Treatiſe Chap. 2. where we delivered the Cure of ſuch ſymptomes as attend putrid Feavers. And the ſymptoms of this Feaver are the ſame in a manner with thoſe of putrid Feavers, the difference being only in degrees of more or leſs; and therefore the ſame Remedies wil ſute with both. Howbeit I ſhal here ſet down ſuch things as have bin frequently tried in the taming of ſuch ſymptomes as attend malignant and Peſtilential Feavers, and which have proved moſt ſucceſsful. And wee ſhal withal declare the Cure of ſuch diſeaſes as do Supervene upon theſe Feavers.

And firſt of al, In Paines of the Head, Want of ſleep, and Raving, at the beginning Revellers of al ſorts muſt be uſed, as opening of the inferior veins and of the Hæmorrhoids; emollient Clyſters, frictions of the nether parts, Cupping-glaſſes, firſt ſet upon the Calves of the Legs, afterwards upon the Back and ſhoulders, both dry and with ſcarification; and Veſicatories, which in a ſimple Delirium or Dotage ariſing from a Chollerick matter, muſt be applied to the Armes and thighes. But if with the Raving there be joyned a dullnes and ſleepynes, a Veſicatory muſt be applied alſo to the Neck; and then Repellers muſt be applied unto the Forehead and *Oxyrrhodines*; of which it is to be noted, that they are not ſo good in malignant as in meer putrid Feavers; becauſe the venemous vapors muſt by al meanes be expelled, and at no hand be kept within the body. And therefore firſt gentle repellers muſt be applied, and if the vehemence of the foreſaid ſymptomes ſhal compel us to fly to the ſtronger, we muſt not uſe them long together.

Among Repellers of the gentler ſort is reckoned that common frontal of the flowers of water Lilly Violets and Roſes, the greater cool ſeeds and Chermes berries, bedewed with the Vapour of vineger, And if that wil not ſuffice, let this following be laid on.

Take Unguentum populeum one ounce, Conſerve of Roſes and violets of each half an ounce. Oyl. of Roſes ſix ounces. Vinegar of Roſes two drams. Mix them all and receive them in tow and put them between two cloaths and apply them to the forehead.

Mean while the Emulſions of the four greater cool ſeeds may be uſed, from which cool and gentle vapors are wont to be carried unto the Brain, which are wont to mitigate the foreſaid ſymptomes. Which if they ſuffice not, narcoticks may be added, which do wonderfully hinder the aſcent of ſharp and malignant Vapors unto the brain, and procure ſleep. Yet they muſt be given in a ſmal quantity, as half an ounce of Syrup of poppies; or if neceſſity compel, two graines of Laudanum opiatum with conſerve of roſes may wel be given; or they may be diſſolved in ſome Julep, or inſtead thereof new Treacle may be given to the Quantity of half a dram. Howbeit theſe narcoticks are ſeldom to be given and in ſmal Quantity, becauſe they Concentre the poyſon, howbeit they are by ſome accounted ſudoroſicks.

After repellers have bin uſed a day or two, we muſt come to derivers, among which is reckoned a veſicatory applied to the Neck of which before, whereunto muſt be added blood-letting from the forehead vein to the quantity of five or ſix ounces: which is very ſucceſsful provided blood was before ſufficiently taken from the veins of the Arm. Alſo horſeleeches may be faſtened behind the Eares. which is a good remedy, but leſs effectual than the former, becauſe by leeches the thinner part only of the blood is drawn away; whereas by the forehead vein ſometimes in a phrenſie more corrupt blood is drawn than by the vein of the Arm. At length, in the ſtate of a Phrenſie, or at the beginning of the declination, reſolvers are to be applied, eſpecially liveing Creatures and their Parts, as the Lunges of a wether which is better than young pidgeons or whelpes, becauſe it doth ſafely encompaſs the whol Head. Now theſe Animals do partly reſolve evil humors contained in the Brain, and partly ripen and digeſt them, that Nature may afterward more eaſily expel them. Some do unadviſedly apply them in the beginning of a phrenſie, becauſe by encreaſing the Hear, they encreaſe

the

the Flux of Humors to the Brain, and encreaſe the Raving.

In the Inflamation, Dryneſs, and Blackneſs of the Tongue, Remedies propounded in the aforeſaid place are convenient; eſpecially ſuch as are compoſed of Water, or the Juyce of Houſleek, and Sal prunellæ. Whereunto this following of *Mindererus* may be added, becauſe Experience hath taught, that it is very effectual.

Take *freſh butter waſhed in Roſe-water, two ounces: Sal prunellæ half a dram. Mix them, and keep the mixture in cold Water. Give the quantity of an Haſtifer or bean, oftentimes in a day, and let the Patients hold it as long in their Mouths, as they can poſſibly. It is a ſign that the Cure goes wel forward, if the black Sootineſs go away, and the dry chopped Tongue begin to grow moiſt, and peelings come away from the Tongue, as if it were flaid, ſo that the ſick Party does cough up the peelings of their Throats. But then their palate is pained, and that very thin Skin wherewith it is covered, can hardly bear any thing in regard of its tenderneſs, but its offended with every light tartneſs, and the leaſt Acrimony imaginable, becauſe the former Inflamation having left it in divers parts Flaid, it muſt be covered with new Skin; and ſo it requires to be perfectly cooled and healed. To this purpoſe the following Gelly wil be moſt convenient.*

Take *Seeds of Flea-bane and Quinces, of each one dram and an half: Gum Tragacanth one dram. With Water of Roſes draw out a liquid Mucilage, whereunto ad the like quantity of Syrup of Violets. Make it in manner of a Gelly; of which let the Patients take often in a Spoon and hold it long in their Mouth.*

Warm Milk does mitigate the pain Cauſed by Gargariſmes, tempers the Inflamation, moiſtens the Tongue and Throat, and attracts the Venom to it.

Theſe following Pills may conveniently be uſed.

Take *Seeds of Cucumbers picked and bruiſed, one ounce: White of an Egg as much as ſhall ſuffice. Make Pills, which let the Patients often hold in their mouths.* Or,

Take Seeds of Gourds and Melones clenſed, and of white Poppy, of each one dram. Liquoris and Gum Tragaganth of each one dram and an half. Beat all to pouder, and with the Mucilage of Quince Seeds drawn with Roſe-water, make Pills to be held in the mouth.

And becauſe this Inflamation, Dryneſs, and Blackneſs of the Tongue, proceeds from the burning that is within. Juleps very Refrigerating are good to cool the ſame; unto which may be added, Sal prunellæ, and Spirit of Vitriol. Alſo they may be mingled with the Patients ordinary drink.

The Cure of extremity of Thirſt was ſufficiently propounded in the aforeſaid place. But in a malignant Feaver, it will be happily extinguiſhed, with theſe two Medicines newly commended, viz. with Sal Prunellæ, and Spirit of Vitriol, taken in Juleps, and in the ordinary drink of the Patient.

Want of Appetite, Stomach-ſickneſs, Vomiting, and Hiccuping, muſt be cured according to the Method delivered in the aforeſaid Chapter. Yet we ſhall ad one thing touching vomiting; that it doth ſomtimes ſo vex thoſe that have malignant Feavers, that they preſently vomit what ever they take, and though they have Thirſt, with Dryneſs and Blackneſs of Tongue; yet can they bear no kind of Liquor or drink: but vomit all their Juleps, Emulſions, Ptiſans, and their ſmal Beer preſently after they have drunk them. This moſt grievous Symptom is ſuddenly cured, as it were by a miracle, with a dram of Salt of Wormwood, given in a ſpoonful of freſh Juyce of Lemmons, as I have learnt by Experience.

A Looſneſs is very frequent in this Diſeaſe, and herein the wiſdom of the Phyſitian is very neceſſary. For if it be unſeaſonably ſtopped, the venemous Matter is kept within. And if it be let alone, it weakens the Patients, and many times brings them to their deaths. In the Cure of this Looſneſs, we muſt therefore thus proceed. If it be ſo moderate that it weaken not the Patient, it muſt not be ſtopt, but only moderated by Strengthening Clyſters, But if it be immoderate, and do very much weaken the Patient, it is wont to be a melting Looſneſs, that Thawes the Patient as it were away, and muſt be boldly ſtopped; which new Treacle to the quantity of half a dram, or Laudanum Opiatum, to the quantity of two or three grains, will effectually perform. Yet I have often ſeen a pernicious Flux which threatned to kill the Patient, ſtopped as it were in a Moment, by giving of powerful Diaphoreticks in a great Doſe; which did expel by the Skin that venemous Matter, which by vexing and grating upon the Guts, and other Bowels, did cauſe ſuch a melting and conſuming Looſneſs.

Worms do very often vex thoſe that have theſe Feavers, and are plentifully bred by the great putrefaction of the Humors. Theſe are conveniently drawn away by ſweet Clyſters, and by potions againſt the Worms; eſpecially ſuch as are made of a Decoction of Seordium. For Scordium is equally good againſt the malignity and the Worms. And to temper the heat thereof, it muſt be boiled with Purſlain, Sorrel, and Harts-horn. Alſo burnt Harts-horn is profitably boiled againſt the

Worms. For *Forestus* in the fourth *Observ.* of his sixth Book, that no Remedy did so much good to such as having a malignant Feaver were troubled with Worms and a Looſneſs, as burnt Harts-horn given to the quantity of a dram in convenient Juleps.

When the malignant and venemous Quality bears great sway in these Feavers, that they come neer the Nature of the true Pest; in such Patients there are commonly risings behind their Ears, and Carbuncles. Wherefore we will here subjoyn their Cure.

In the beginning of a Parotis, or Rising neer the Ear, as soon as it begins to appear, the Part recipient must be relaxed and widened as it were, and if the swelling rise but slowly, the motion of Nature endeavoring to expel the morbifick matter that way must be assisted, by applying drawing things to the swelling, and by giving Antidotes and Diaphoreticks. To relax the Part, make an Injection of Oyntment of Marsh-mallows, and lay on afterwards moist Wool which is greasie, from the Sheep. Attraction may be caused by applying Whelps, or yong Pigeons, by which also the pain will be mitigated. Plaisters made of Leven, Figs, Onions, Doves-dung, adding thereto Butter, Hens-greaſe, fresh Hogs-greaſe, and Oyl of Lillies, or sweet Almonds. If by these Attractives the Part be over-heated, and the pain be too much encreased; they may be omitted by fits, laying on in the mean time the Cataplasm made of the Crum of White-bread; or nointing with the aforesaid Oyls, being laid on with unwasht Wool; or with Oyntment of Marsh-mallows, as was said before. And because the part is not sufficiently capable to receive the morbifick matter; to derive another way a portion thereof, a vesicatory must be applied to the hinder part of the Neck, and also the Diaphoretick formerly cited must frequently be given. The Matter being called forth into the external parts, let Suppuration be endeavored, by laying on a Cataplasm made of the Roots of Marsh-mallows, and of Lillies, with Figs, Meal of Linseeds, and the Oyls and several sorts of Greaſe aforesaid. When Suppuration is made, let the Tumor be opened; let the rest of the Matter be digested, by continuing the Cataplasm, or by laying on a Plaister of Diachylon. Let the Ulcer be cleansed with that common Digestive made of Turpentine, Yolks of Egs, and Oyl of Roses. Let the Ulcer be kept long open with a Tent, that all the Venom of the Disease may sufficiently be purged out, and at last heal it up and Cicatrize it. Yet this one thing is to be observed; That if the Tumor doth so encreaſe as to cause danger of Suffocation, or Choaking, it must be opened before it be perfectly ripe: For so some portion of the matter being drawn forth, the Tumor will fall somwhat, and the danger of Suffocation will be avoided. In like manner, If the malignity be very intense, that the Patient seems likely to miscarry before the Tumor be ripe; then also it must be opened before its due time that the force of the Venom may expire, whence oftentimes the Patient recovers. And upon this Account, in the Pest the Buboes or swellings in the Groin, are wont to be opened, before they come to Suppuration.

Finally, It were a Wickedneſs to pass over in silence a rare Experiment, which happened to me in that same Epidemick Feaver, which cruelly raged and ranged at *Montpelier*, in the year 1623. So that neer half of those that were sick died of the Disease. But especially, So many as had swellings by the Ears (which was wont to happen about the ninth or eleventh day of the Disease) they al died within two daies after; there preceding or happening at the same time Raving, Stupidity, Convulsions, with an unequal, frequent, and very small Pulse, as it were the creeping Pismire-Pulse. And after I had seen divers in this condition, who could not be helpt by Antidotes, or by drawing things laid to the swelling; musing with my self if by any means possible, they might be delivered from so certain destruction: I began at last to think, that therefore these swellings proved so fatal, because the Part in which they happened was not capable to receive all the Morbifick Matter, which being retained within kills the Patient, and that therefore the work of Nature being only begun in those swellings, might be supplyed by evacuations, viz. Blood-letting, and purgation; whenas also *Galen* in his 3. *de Comp. Medic. Secund. Loca. Cap. de Parotidibus*, In the Cure of these swellings prescribes Blood-letting. But this advice was contradicted by the extream weakneſs of the Patients, which was so great that they seemed to be even now in the pains of death, which also it self soon followed. But *Galen* in the forecited place, when He prescribes Blood-letting in the Cure of such Tumors, does propound two conditions, viz. If blood abound, and the strength of the Patient will bear bleeding. Both which Conditions were absent in these Cases, for blood had been before sufficiently drawn, both by repeated Phlebotomies, and Cupping-glasses: Also the Patients were extreamly decated in their strength. Weighing all these things with my self, I conceived that golden saying of *Cornelius Celsus*, was in this Case if ever seasonable, viz. *That many things are done rightly in time of eminent danger, which were otherwise to be omitted: And that its better to Experiment a doubtful Remedy in one or two persons, than to leave so many persons to undoubted Destruction.* I was also encouraged by conceiving, that this great weakneſs of the Patients, was rather from oppression of the Morbifick Matter, than dissipation or dissolution of their strength. For therefore their strength did suddenly decay, because Nature was not able to cast off her heavy burthen, and I hoped when that burthen was made lighter, she would be freed. Add hereunto, That bleeding

bleeding might be ſo ordered, that no danger ſhould be feared therfrom, viz. If two or three ounces only were taken away at firſt, for tryall ſake, and if the ſucceſs were good, a greater quantity might be taken away afterward I reſolved therefore upon this courſe. And a Merchant of *Montpelier* named *Bernardier* being the firſt I met with, and a tumor aroſe behind his left ear on the eleventh day of the diſeaſe with ſuch a puls & other ſymptoms as aforeſaid; I preſcribed bleeding to the quantity of three ounces which the Chyrurgion being an Antient and experienced man refuſed to do for fear the patient ſhould dy under his hands; afterwards being emboldened by my preſence & authority, he took away three ounces of Blood, after three or four houres, I viſit my patient again, & find his puls a little ſtronger & not ſo unequal; then I cauſed him to bleed ſix ounces, after which his puls was beter and ſtronger. The Blood was very corrupt: The day following I preſcribed him a Purg of Senna, Rhubarb and ſyrup of Roſes: and ſo the patient was recovered from the jaws of death. And afterwards all the ſick that had riſings behind their ears, firſt I Bled ſeverall times a little at a time, and the day following Purged them: and ſo all of them (to God be the Honor and Praiſe) ſo many as were thus ordered happily recovered; and never any afterwards that had thoſe riſings behind their ears, died in the whol year

Howb it it is to be noted (which we hinted in the prognoſis) that the ſwelling doth often appear critically and profitably, and thereby the ſick are recovered of their diſeaſes; viz. So oft as they appear in the declination of the diſeaſe, and this is eaſily ſeen by the abatement of the ſymptoms which follow upon the riſings; and ſuch are wont to happen in Feavers of leſs malignity But in the time aforeſaid, ſuch was the malignity of the epidemicall Feaver, that the tumors behind the Ears would often break forth in the ſtate of the diſeaſe and ſymptomatically and deadly; until by the remedies aforeſaid, their diſtructive faculty was taken away.

In a carbuncle ſuperveneing upon a burning Feaver, if before its apparition, Blood were not ſufficiently taken away. If the patient can bear further blood-letting, open that vein which is nigh the carbuncle, that the greater attraction may be made of the veremous matter to the part affected. Afterward let the Tumor be ſcarrified on every ſide round about and that with prety deep gaſhes and foment it a while with warm ſalt water, that the corruption of the blood may be hindered, and the fflux thereof promoted. A while after apply a grain of a Cauſtick to the midle of the Puſtle, and upon the whol ſwelling, lay this following Cataplaſm,

Take leaves of Rue, and Scabious bruiſed of each one handfull: three pair of dryed Figs bruyſed; ſharp Leven an ounce; Pepper poudered one dram; two yolkes of Eggs: Mix all into a Cataplaſm, which muſt be applied for two dayes together.

And then lay on this following.

Take Juices of Comphry the greater, Scabious, Marygold, of each one dram; old treacle four ſcruples; Salt one dram; two yolks of Eggs: mix them all and apply it to the tumor.

Alſo at the beginning may be applyed the Cataplaſm *de Arnoglosſo* deſcribed in the Diſpenſatory of *Banderon*.

But to the *Eſchara* after the application of the Cauſtick, apply *Unguentum Baſilicum*, adding thereto Treakle, Oyl of ſcorpions, and the yolk of an Egg.

When the tumor is grown, leſt the malignant matter ſhould flow back again to the internal parts let the compaſs thereof be anointed, with ointment of Bolus, twice or thrice in a day: And upon the Eſchara or Cruſt, that it's falling off may be haſtened, lay *Unguentum Baſilicum* with butter, and Sows greaſe mixed therewith after the cruſt is com away, let the ulcer be cleanſed with this folowing ointment.

Take juice of Marygolds, wormwood, Scabious, and Smalladg of each one ounce; choyce of Mirrh, Florentine Oris, Aloes, Sarcocolla, of each one dram; Honey of Roſes two ounces: Make of all an ointment, to be uſed till the ſore be perfectly curred

Chap 2. *Of the Meaſles, and ſmall Pox.*

THat Feaver which is commonly attended by the Meaſles and ſmall Pox, may juſtly be reckoned among Malignant and peſtilential Feavers; ſeeing it is Epidemical and contagious, and kills very many children, to whom it commonly happens

What is the difference between the Meaſles and ſmall Pox, Authors are not yet well agreed. But cuſtom hath obtained that thoſe ſame larger puſtles or Whelks like unto Warts (from whence they

they have their name) should be called in latin *Variolæ*, in English the small Pox; but those little Pustlet and as it were asperities of the Skin with a deep redness like St. Anthonies fire or the rose, which are discussed within five or seven daies without suppuration, are called in latin *Morbilli* and in English Measles. There is also another kind of pustles common to Children, like unto the small Pox in respect of the fashion and size; but herein it differs, in that the small Pox begins with redness and inflamation; but these are white and as it were bladderes full of a wheyish humor, which within three daies break and dry up and are wont to cause no danger, and commonly break forth without a Feaver. It is described by *Vidus Vidius*, in these words; *Some besides the two former sorts do add a third which they call the Crystalls*, For so they term certain Bladdrs full of matter, which shine like Christall, wherewith the Skin is in divers parts diapered; the common people call them *Ravaglione*. unto which all men are not so subject as unto the small Pox and measles, neither are they so greviously afflicted under them. wherefore these bladders ought not to be reckonedas a third sort with the small Pox and Measles

Touching the smal Pocks, and Measles Authors dispute much, and especially whether these be new diseases, or if they were known unto the antients, and what is the next and immediate Cause of them. But since I affect al possible brevity in my Lectures, I have bin wont to omit al controversies, propounding onely the plain and naked decisions of them; and accordingly, I shal breifly unfold what is to be thought of the foregoing questions.

And in the first place I conceive the smal Pocks and Measles to be no new diseases, seeing they rise from a most antient Cause, viz. the impurites of the maternal blood; which when the Arabians observed, they accounted it no new disease. But if they had first come abroad in their times, they would have mentioned their novelty. And although, they were the first that exactly described them; and *Hippocrates* and *Galen* with the rest of the Antients, have scarce mentioned them; we must suppose that therefore the Antients did not write distinctly of them, because they are only accidents of a malignant Feaver and critical eruptions, which do not make a distinct disease by themselves. Or because in Greece through the mildness of the Ayr these diseases were so light, as not to deserve the Care of a Phytitian. Even as in the Western Indies, in regard of the great temperatnes of the Ayr, it was wont to be so light, that it was scarce taken notice of before the coming of the Spaniards into those parts. But a Blackmore which was brought thither, being taken with Pestilential smal Pocks, the malignant and venemous quality being spred by infection, the disease began so to range and rage, that a great part of the Indians were slain thereby. For whereas before, those impurites of their Mothers blood remaining in them, were wont easily to be discussed, through the Clemency of the Ayr; now when a venemous quality was added to them, they caused grevious Diseases.

Now that the Mothers blood is the true Cause of the Smal Pocks and Measles, is hence cheifly gathered, because among many thousands of Men, it is hard to find one, who once in his Life hath not had these diseases. But a disease common to al Men, must needs depend upon some common cause: such as are the principles of Generation viz. the seed and Mothers blood.

But the seed cannot be the cause of the smal Pocks and Measles, because from it come hereditary diseases, such as last a Mans Life time; it remaines therfore that these diseases spring from the Mothers blood, with which the Child is nourished in the Womb. For therein, be it never so pure, some impurites are found, which communicate their pollution to the parts of the Child; and that pollution of the parts, doth defile the Mass of blood; and being provoked by some occasion, doth make the same to boil, by help whereof, the blood ferments and becomes purified, both it and the parts aforesaid. This the *Arabians* do manifest by a cleer example of Wine, which being powred whiles it is new into a musty or otherwise il-qualited Vessel receives that il quality from the Vessel but when it begins to work and purefie, it clenses both it self and the Vessel. Now this working doth commonly happen to Children; howbeit sometimes to those that are elder and have attained Mans estate, because it is evermore set on work by some external Cause, such as is especially a certain disposition of ayr proportionable to this disease whence it comes to pass that sometimes the smal Pocks, sometimes the Measles are rise, because the Ayr is sometimes enclined to the one and sometimes to the other.

Neither can those impurites of the Mothers blood, infect her and cause in her the same diseases, although *Hippocrates* saies in his Book *de Natura Pueri* that there are three parts of the blood, one most pure, with which the Child is nourished; another impure, wherewith the Mother is nourished; and another, most impurer, which is kept in the Veins of the Womb, the whol time of Going with Child, and after the Birth is purged away in the Childbed purgations. For first, seeing the Mother hath parts more hard and solid, they do not so soon take impression as the tender and soft body of the Child. Again that most impure part of the blood which is kept in the Veins of the womb and of the After-birth, the whol time of belly-bearing, doth infect the blood in the passage, which is carryed through those parts to Nourish the Child: whence the Child contracts an evil quality, which in its time is the Cause of that ebullition in the blood of

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the Child. But that impureſt part of the blood remaining in the foreſaid places, doth not infect the body of the Mother.

Furthermore, its not to be wondered at, that the breaking out of the ſmal Pocks and Meaſles, is ſomtimes ſo long deferred, as that ſome have them at Mans eſtate. For thoſe impurites do not ſubſtantially remain in the body as many imagine: for they would be corrupted by long ſtay and acquire a moſt grevious putrefaction. But only an evil quality is by them imprinted upon the parts of the Child, which in proceſs of time infecting ſome part of the humors, becomes offenſive to Nature; which then rowling her ſelf, doth drive thoſe infected portions of the humors, into the Skin.

And foraſmuch as in the Maſs of blood a twofold excrement is found, the one thick the other thin: of the thick, the ſmal Pocks are bred, of the thin, the Meaſles. And although the evil and malignant quality be one and the ſame, infecting both excrements: yet becauſe the Nature of the excrements is different, the Analogy of the external Cauſe unto them both is Different. whence it comes to paſs that ſometimes the ſmal Pocks and ſomtimes the Meaſles are Epidemically ſpread abroad.

And although the ſmal Pocks are wont to break forth in the whol body, yet are they wont to appear in greateſt quantity in the face, feet and hands; which is otherwiſe in the purple ſpots of the Purple Feaver, for they appear moſt on the breaſt and back. The Cauſe of which difference is this, that inaſmuch as the ſaml Pocks ariſe from an ebullition of the blood, by help whereof an Excretion is made of the excrements lurking therein, unto the Skin; and the Liver being the Fountain and original of blood, whoſe Emunctories are the Face, Hands, and Feet, whence it comes that ſuch as have hot Livers, have red and rubied faces, and feel intenſe heat in the palmes of their hands and Soals of their feet; it follows that the ſmal Pocks and Meaſles muſt come out there more than any where elſe. Contrarywiſe the purple ſpotts which appear in malignant Feavers, do ariſe principally from the Miſaffection of the Heart, and therfore they break out chiefly in parts near the Heart, and eſpecially about the Loines; becauſe in them the *Vena Cava aſcendens* and the *Arteria aorta* which are annexed unto the Hair, have their Courſe,

Alſo another difference is to be noted between the ſmal Pocks and Purples; becauſe the ſmal Pocks and Meaſles appearing on the third or fourth day from the beginning of the Feaver, are wont to be critical, and for the moſt part void of danger: but the purple ſpots, though they appear on the ſeventh day are commonly Symptomatical, and render the diſeaſe worſe; whenas a man would think it ſhould be otherwiſe, for a diſeaſe is more crude on the fourth than the ſeventh day. But the Cauſe of this difference conſiſts herein; that in the ſmal Pocks and Meaſles the Feaver commonly begins at the higheſt; ſo that not only on the third and fourth day, but alſo on the firſt or ſecond daies, excretions may be in them critical. But malignant Feavers proceed more ſlowly, and their beginning is commonly Extended to the ſeventh day: ſo that Excretions which then happen cannot be critical. Now that the Pox and Meaſles come ſo ſoon to their ſtate and not the malignant Feavers, is hence; becauſe the Pox and Meaſle-Feaver comes from the lighteſt putrefaction, and rather from an Ebullition of the blood than from any intenſe putrefaction of the matter; and therfore Nature by help of Coction makes it to ceaſe before the ſeventh day, becauſe it was a light Feaver and roſe from the ſlighteſt Cauſes. But in malignant Feavers, ſo great and ſordid is the putrefaction that it cannot be corrected in the fourteenth nor ſomtimes in the twentieth day. And therefore the ſpotts breaking out before that time, the diſeaſe is exaſperated; becauſe Nature was forced to expel them, without Concoction and ſymptomatically.

The expulſion therefore of ſmal pox and Meaſles is cauſed, by an Ebullition of the blood: which Ebullition according to *Avicennas doctrine*, is twofold; the one perfective, the other corruptive. The perfective or depurative is that, in which only the impurer and excrementitious parts of the blood, are by Nature purged forth, that the whol maſs may afterward remain pure; and then the ſmal Pocks are innocent, which are cured without any help of Phyſick. But the corruptive is, wherein not onely the excrementitious parts of the blood, but the ſincere blood it ſelf is putrefied whence ariſe dangerous and deadly pox, and according as there is more or leſs putrefaction, in more or fewer parts of the blood, ſo is the danger more or leſs. This corruptive Ebullition doth cheifly happen, when thoſe diſeaſes are epidemical being occaſioned by a malignant Conſtitution of the Air, by which an ebullition of the humors and a malignant putrefaction is cauſed; whence many and dangerous ſmal Pocks are cauſed; which are ſomtimes (according to *Rhaſis*) the Forerunners of the Plague.

Pocks and Meaſles are reckoned among acute diſeaſes becauſe ordinarily they are terminated within the ſpace of fourteen daies. Now ſom do wittily obſerve a double order of times in this diſeaſe viz. the time of ebullition and the time of eruption: the time of ebullition is commonly terminated in four daies; ſo that the firſt day is counted the beginning, the ſecond the Augment, the third the ſtate, and the fourth the declination: for then the Feaver and other ſymptomes are wont to remit.

But the beginning of the Eruption of the Pox is the fourth day it ſelf, the Augment reaches to

the seventh, the state until the eleventh, the declination unto the fourteenth, at which time the Pocks are dried. Howbeit oftentimes they are not dry until the twentieth day.

Differences of small Pocks and Measles, are taken either from the substance, in regard of which, some are more or less Flegmatick, Bloody, Chollerick, or Melancholick: or from the Quantity, in which regard they are more or less in number; greater or less; profound or Superficial; or from the Quality, in which respect some are red, others white, yellowish, Violet colored, Livid, black, according to the diversity of Humors of which they are compounded; or from the time, in respect whereof some come quickly out, others slowly; some are soon, others late ripe, or dissolved: or from the place, in which respect, some occupy only the Skin. others do seaz upon the internal Parts also, as the Throat, Lungs, Guts, Liver, Spleen, and other bowels.

The Diagnosis respects either the Disease present or at hand. The smal Pocks and Measles, when they are present, are subject to the outward Senses, and need therefore no other signs. But these signs following declare them to be at hand.

Pain in the Head with Pulsation in the Forehead, and Temples; great Sleepiness: Terrors in Sleep; sometimes Ravings, Tremblings and Convulsions: Sneezings; frequent Yawning; Hoarsness, Cough, Difficulty in breathing. Heat, Redness, and Sence of pricking over the whol body. Pain of the back, which comes sometimes alone, or appearing with few other Symptoms in a Synochus Feaver, it shews the smal Pocks will come out. For seeing through the back are carried the great Vein and Artery, in which the malignant blood boiling, does send forth sharp vapors to the Nerves, and neighboring Membranes; it must needs be, that pains should be felt especially in those parts. Great Anxiety and unquietness. Tears flowing of themselves. Shining before the Eyes, and their Itching, a swelling of the Face with some Redness. A vehemency of the Symptoms at first, so that the Disease seems of a sudden to have attained its vigor.

All which are caused, eather by many and thick vapors sent up by the boiling of the blood, into the Head, Diaphragm, and other parts; or from the Nature of the Pocks themselves, now beginning to invade, the parts; or by a Fluxion caused by heat, which dissolves the Humors in the Brain.

It's of great Moment to foresee the smal Pox; but much more to foretel their event, which the following Prognostick Signs wil declare.

And in the first place those smal Pox are wont to be void of danger, which come out soon and easily, and do quickly ripen.

In which the Feaver is moderate, without great Symptomes, which ceases after they are come out or is very much abated. In which the voyce is free and breathing easie.

Smal Pox, which at first are red, and white, soft, distinct, few, round, pointed, coming only in the Skin and not inwardly, are wont to be safe.

All the Signs aforesaid do signifie the paucity of the Morbifick Matter, it's Obsequiousness, Benignity, and the strength of Nature, lustily expelling.

Contrary wise dangerous and deadly Pox are known, by a great Feaver, which lessens not after they are broak forth; for it signifies the malignant and venemous humors are not sufficienly expelled unto the Skin, but that the greatest part of them remains yet in the Veins. Great anxiety and unquietness; which comes from the same humors boiling in the Veins. Difficulty of breathing, which signifies either pustles or Impostumes in the Lungs; or a Squinsie, or great decay of strength. Great thirst which declares the inward burning; and if with the thirst, shortness of breath be encreased, Death is at hand. A Looseness or bloody Flux, which shews the malignant humors have their recourse inward, which is a course quite contrary to that of Nature and therefore deadly, so that few of those which after the Pox coming out, are taken with such a Looseness do escape.

A bloodie Urine is a most deadly sign; and likewise if by stool pure and sincere blood be voided. Somtimes also by the Nostrils, Gums, and other parts of the body blood is voided, which are commonly deadly Signs. For they signifie the extream Acrimony and malignity of the blood: which doth vehemently provoke Nature, and compells her to a preposterous excretion thereof.

Also Pox long a coming out are very bad, which signifie the contumacy of the matter, or the weaknes of Nature, Many, Great, Double and united Pox, do shew an overabundant quantity of Morbifick matter, and are bad. So are hard ones, shewing the thickness and incoctibility of the said matter. Also flatt ones which shew the weakness of the expulsive faculty, and they are worse, if they have a black spot in the middles of them, which argues extraordinary malignity. And green, blewish and black which spring from that sort of choller called *Bilis porraca, or Atra* Leeke-green or black Choller are a bad sign.

They are worst of al which when they are come forth do presently vanish, and the tumor of the parts falls: for they signifie the retirement of the Humor inwards; and none of those escape who have the Pox on this manner going in again, but they die commonly within twenty four houres.

They are also dangerous, when spots like those of the purple or spotted Feaver, are mingled among the pox; especially if those spots be livid or black. For they signifie not only that same

light

light putrefaction, which is wont to happen in the ſmall Pox by means of the ebullition of blood: but alſo that intenſe and profound Malignity is peccant; from which much greater danger is threatened to the Patient.

Dung or Urines in this Diſeaſe livid or black, do portend great danger: for they ſignifie that Melancholly abounds in the Veins, and infects the whol Maſs of Blood.

The cure of the ſmall Pox & Meaſles is performed in the ſatisfaction of four Indications, whereof the firſt conſiſts in the Evacuation of the peccant humors. The ſecond in aſſiſting the motion of nature, or helping to expell the Pox. The third in the oppoſition of the malignant and venemous quality. The fourth in correction of ſymptoms. All which that they may be conveniently effected, firſt a convenient diet muſt be appointed, which muſt be the ſame which was ordered in the cure of putrid Feavers: howbeit ſome things muſt be particularly noted.

Firſt that the patients be kept in a warm room, to the end their pores may be kept open, & the breaking out of the ſmal Pox may there be furthered. therefore they muſt be kept in a Chamber well ſhut, which the cold air muſt in no wiſe enter into. For many Children that had benigne Pox, have been killed by letting in the cold ayr upon them, viz. the morbifick matter being thereby driven back into the inward parts. And for the ſame cauſe they muſt be moderately covered with Cloathes; but ſo that the heat of the air or the weight of the Cloathes may not augment the heat of the Feaver. The foreſaid coverings are wont commonly to be made of red cloaths, becauſe they are thought by ſom Analogy to move the boiling blood to the externall parts. Many are alſo wont to keep an Ewe or Wether in the chamber or on the bed; becauſe thoſe Creatures are eaſily infected and draw the venom to themſelves, by which meanes ſom Eaſe may happen to the ſick perſons.

A decoction of Barly, or of the roots of Sorrel, or of Harts horn is profitably uſed for drink, in the beginning of the diſeaſe eſpecially, and when the Feaver is vehement. But if the Feaver be not very violent, a decoction of Barly and Figs wil be very profitable, viz. Effectually driving the Humors to the Skin; and *Foreſtus* and *Amatus* did continually uſe the ſame with good ſucceſs.

Furthermore, Whereas in the whol Courſe of the Diſeaſe, Sleep ought to be moderate, yet in the Augment when the Pocks break forth, long Sleep is hurtful, and it is better to watch more than ordinary.

That therefore the aforeſaid Indications may be fulfilled, the Cure muſt be begun by Blood-letting (if Blood in any ſort is redundant, and the Age of the Patient is like to bear it) and a Vein muſt be opened as ſoon as may be. But if the Phyſitian ſhall not be called the firſt day, yet he ſhal do well to take blood before the breaking forth of the Pocks, or while but few are come out; which time is wont commonly to laſt until the fourth day, from the firſt onſet of the Feaver. In which Caſe notwithſtanding, diligent heed is to be taken. For if upon the breaking forth of the Pocks, the Feaver and its Symptoms be abated; it is better to leave the buſineſs to Nature working well, which will ſufficiently expel the whol Morbifick Matter to the Skin. Alſo Blood-letting is not in this caſe neceſſary, ſince experience ſhews, that an infinite company of children haveing gentle Pox, and not Plethorick are happily cured without bleeding. Nay rather in the former caſe ſomtimes blood-letting may do hurt, becauſe the expulſion of the ſmal Pox is cauſed by an ebullition of blood: which ebullition if it be ſmall, it will by blood-letting be leſſened very much, and ſo it will becom inſufficient perfectly to purge the maſs of Blood from it's impurities. Contrarywiſe, if upon the Eruption of the Pox, the Feaver becomes more ſtrong, there be anxiety, difficult breathing, an urin thick and red, and other ſymptoms ſeem greater it's a ſign that naure is oppreſt, with the over great burthen of humors, and that ſhe cannot govern them conveniently; and that therefore Phlebotomy is neceſſary, that a part of the burthen being taken away, nature may be the better able to expel the reſt. In one word, when there is an Ebullition perfective meerly and depuratiue, blood is not to be taken away, but in a corruptive blood-letting is extreamly neceſſary yea even in that which hath leſs malignity in it, whoſe degrees have been ſpecefied before. And ſo neceſſary is blood-letting in dangerous Pox, in which the corruptive Ebullition is wont to happen, that the tender age of infants muſt not hinder it. For it is grown into a cuſtom to let children blood when they are four years old and ſomtimes when they are three. The phyſitians of *Paris* in their tender age and while they ſuck do let children blood. Which yet the tender age of infants doth hardly admit, with that light nouriſhment of milk, and the plentifull efflux of their humors by tranſpiration; neither can this new licence of letting ſuch yong ones blood be juſtified by any countenance from the wiſe Authors f Phyſick.

In prety big children, many times once blood-letting wil not ſerve the turn, but it muſt be repeated

if

if the Feaver remain intense or if Raving or any other grevious Symptome do urge, Yea verily when the Pox are perfectly come out, which for the most part is within nine daies, if the Feaver be very urgent, blood must be again let and the Patients ordered, as those who have a putrid Feaver.

If blood-letting be suspected becaule of the tendernes of the Childrens Age, or becaule the fitting seaſon is now past; the superfluous blood may be diminished by Cupping-Glasses with Scarification, applied to the back, shoulders, and thighs, which may also wel be used in the state of the disease, seeing the Motion of Nature from the Centre to the Circumference, is by them promoted. But care must be taken that in young Children the Scarifications be not too deep: for it happens sometimes that an unadvised Surgeon cutts so deep, as to cut asunder some Veins and let out the fervent and boiling blood, so that there is great trouble to stop the same.

Purgation is suspected in this disease; for it makes a motion contrary to that of Nature viz. from the Circumference to the Centre; and to whomsoever, having Pocks, a loosnes happens, the Pocks commonly strik in, and the Partie dies, as I said in the Prognostick. Yet observe, that many times purgation is to good purpose practised before the pocks come out, and before the Feaver growes vehement, viz. when the Children are in the Neutral state of Decidence. For then if il humors abound, they are profitably diminished by purging, that Nature may afterward, more Cheerfully set upon the Expulsion of the Remainder. But when the Pox begins to appear, Purging wil be pernicious: And likewise, if there be great malignity abroad, as in an epidemical Constitution, when very many Children dy of that disease; it is better wholly to abstain from Purging; because in diseases which are very malignant and Pestilential, Purgation in the beginning of the Disease, is very hurtful. Now the Purgatives must be compounded of gentle Simples viz. Rhubarb, Cassia, Manna, Tamarinds, and Syrup of Roses.

In the Course of the disease, if the belly be hard and bound it may gently be removed, but not provoked; and that by a suppository of honey alone without salt; or with a Clister of Broath or milk, or a decoction of French barley, Raisons and Liquoris with sugar and yolkes of Eggs.

After blood-letting and other evacuations (if necessary) the expulsion of the pox must be helped forward, not only with specifick medicines driving the humors to the Skin, but also with diaphoreticks and Alexipharmicks; especially if the Pox be Epidemical and being very malignant, do threaten great danger.

There is a vulgar Medicine commended by *Rhasis*, *Avicenna* and al the Arabian Physitians to drive out the Pox; which also the greatest part of our later Physitians use, according to the description of Avicenna, which is thus.

Take *Fat figgs seven ounces. Lentills shaled three drams. Lack two drams and an half. Gum traganth and fennel seed, of each two drams. Boil al in a pint and half of fountain water to the third part. Let the patient drink thereof. Rhasis adds Saffron fifteen grains, Raisons five drams, because Saffron opens and corroborates, and the Raisons do strengthen the Liver. And Traganth although it do incrassate and astringe, yet is it therefore mingled with the rest, that it may prohibit the over great ebullition of blood.*

Lentils are by some Neotericks rejected, because they are restrictive and may hinder the coming forth of the Pox. But the Autority of so many and such noble Princes of Physick, must not rashly be rejected; but we must rather determine, that Lentils shaled are with great reason put into this composition; viz. that by their astringent and incrassating faculty, they may bridle the Fervency of the humors and hinder their falling upon any noble part; to which purpose Gum traganth was added, as I hinted before. This is taken out of *Galen*, who in the 1. *De Aliment. Facult. Cap.* 18. Doth teach us that Lentils twice boiled do Strengthen the Natural parts, and by their astriction stop the flux of the belly. The Lentils may therfore be put in or left out according to the Judgment of the Physitian who manages the Cure, as there is more or less necessity of attenuating and driving the humors into the Skin. For if the matter be subtile and the ebullition great, the Lentils may profitably be put in for the Intent aforesaid. But if the matter seem to be thick, so that Nature can but slowly drive it into the Skin then must they be omitted and the Gum traganth; and onely the other attenuating and diaphoretick things used for the drink. By which it appears, that we must not too strictly adhere to the formes of Medicaments propounded by Authors; but that in several occations they must be variously changed. Let this following Receipt serve for an example, compounded partly of the foresaid simples and partly of others that are diaphoretick and resist malignity; which may much help such as have this disease, in making the Pox to come wel out.

Take *Rootes of Fennel and Sorrel of each one ounce. Harts-horn shavings half an ounce Leaves of Scabious, Scordium, St. Johns-wort of each one Handful. Three pair of fat Figgs. Gum Lack three drams. seeds of Navew or Turnep & Carduus Benedictus of each two drams. Lentils unhusked half an ounce. Gum traganth one dram and an half. Boil al to a pint and half. Of the straining take three ounces. Syrup of Lemmons one ounce. Mix them. make of them a Julep let the Patient drink thereof twice or thrice in a day.*

If

If the Malignity be very great, as commonly it happens in Epidemical smal Pocks, we must chiefly use Antidotes. and consequently al those remedies which we have propounded in malignant Feavers wil be good in this disease, respect being had to the Age and strength of the Patiennt. And among others, Confection of Hyacinth, Bezoar stone, Pouder of Corall, Pearles, Harts-horn; oyl of Scorpions of Matthiolus, must be used frequently, with other things, the manner of whose use may be learnt out of the foregoing chapter.

Neither must such things be omitted as do restore the Patients strength, both inward and outward which may be also learnt out of the foregoing Chapter, and by the prudent Physitian administred in due season.

And it must be heedfully remembred, that such medicaments as drive out the Pox are not to be used in al patients. For somtimes they break forth so violently, that they have need to be restrained for a while. For the great ebullition and immoderate Fervor of blood, if they be not tempered. are wont to destroy the Patients; and therfore, it is good in such a Case to use bridlers and coolers, For example, a Julep many be thus composed.

Take *Whol barly one pugil. Cinquefoil rootes and Tormentil roots of each one ounce. Leaves of Sorrel, Endive and Wood-sorrel of each one handful. Lentils excorticated half an ounce. Gum traganth one dram. Boil al to a pint. In the straining dissolve four ounces of Syrup of Lemons or Pomegranates. Make of al a Julep for four doses, to be taken twice in a day.*

Amatus Lusitanus in the 18. Cure of the third Centurie propounds an example of such kind of Pox arising from boiling humors and cured only by coolers and thickeners. which example I thought good to cite in this place word for word, that the young beginners may perceive, in what cases the Cure is most to be varied. *The* Boy *of* Altarasius (saies he) *began to have the smal Pox, some of which did run together, so that in two daies they flaid his Miserable Carcase: for the pustles crept along and did only flay off his Skin; which I have likewise observed in other Children. Against which, I thus set my self to work; First because this matter was too thin, I endeavored to thicken the same, and not only so, but to abate the evil quality of the Liver and internal parts, that no more such thin subtile Humor might be bred. This I did with refrigerating Medicaments, as Syrup of Roses, of Cichory simple, of Endive and Violets with waters of like Nature mixed with them. He was nointed with Ceratum Santalinum. But the Diet likwise helped much, which was ordered cold and moist. By al which the matter became thicker and the pox began to appear thick and large.*

And for ordinary drink prescribe a decoction of barly and of Sorrel roots. And these remedies must be continued, until the Fervency of the humors shal begin to abate: if Nature seem to want their assistance.

These things might suffice for a direct Cure of the smal Pox. But because they may bring great dammage to divers parts, both internal and external, we must endavour the Prevention and Cure thereof.

The internal parts may especially be preserved with a decoction of Lentils, of Gum Lac and Traganth, described before. For Gum Lack defends the Liver and Spleen, Lentils the Gutts, and Traganth the breast.

But the Lungs are peculiarly preserved by Conserve of Roses and Violets, and Syrup of Violets Jujubees, Myrtils, Dryed Roses, Poppies and also these following LOHOCHS. Se in my Dispensatory (at the beginning of the Lohochs) what a Lohock is; and why so called.

Take *Conserve of Roses one ounce and half, juyce of Lentiles thrice boiled six drams. poppie seeds an half dram. Gum traganth one scruple. with Syrupe of dried Roses make all into a Lohoch.*

Or this *of Avicenna*, which is commended by *Guainerius* and *Foresius*.

Take *Lentils unshaled and finely poudered three drams. White Poppie seeds one ounce. Conserve of Roses two ounces. Julep of Roses, as much as shal suffice, Mix al into a Lohoch.*

Or such a Lohoch as this following may be made only of Syrups.

Take *Syrup of violets, jujubees and dried Roses of each one ounce. Syrup of Poppies half an ounce. Mix them, let the Patient lick thereof often out of a spoon, and swallow it down leisurely.*

But if a flux be at present into the Lungs and cause hoarsness and suffocation; it must not only be stopped with the foresaid Remedies, but revelled by Cupping-glasses, both dry and Scarified, and by bleeding, if nothing else hinder. Also give the Patients to drink a decoction of Barly, Jujubes and Liquoris, and let them use this following Lohoch.

Take *Seeds of Marsh-mallows, Melons, Cucumers, and white Poppy, of each two drams. Raisons stoned and Jujubes of each four pair. Boile al to a pint. In which dissolve conserve of Roses and Violets of each half an ounce. Pouder of Diatragacanthum frigidum three drams. Sugar Candie and Sugar of Roses, of each as much as shal suffice. Make al into a Lohoch. The Jawes and throat may be fenced against the Pox, before they break out, with this following Gargarism.*

Take *French barly one pugil. Plantane Leaves two handfuls, red Rose Leaves one pugil, Balaustians, seeds of Sumach of each two drams. Boil al in two pints of water to a third parts consumption. In the strained Liquor dissolve Syrup of Mulberries and Pomgranates of each one ounce. Mix al into a Gargarism.*

If the young age of Children cannot admit a Gargle, a Lohoch may be made, of Syrup of Mulberries, Pome-granats, of dried Roses; either alone, or mingled with red Rose and Plantain waters. Which must often be given them in a spoon. Wherewith if the Fluxion cannot be stopped by reason of the abundance of the rhume, so that there is fear of Suffocation impendent; such things must be used, which widen the passages, and help excretion, after this manner.

Take *Mucilage of Fleabane seed and Oyl of sweet Almonds new drawn, of each one ounce and halfe Whitest Sugar two ounces. Mix them. Make of all a Lambitive to be given every hour.*

If by meanes of the Acrimony of the flux, or the Plenty of the smal Pox, an Ulcer be herd in the Jawes or Throat; it must be clensed with barly water and honey of Roses, or with allum water. and if it tend to corruption a little Ægyptiacum Ointment must be mingled therewith.

The gutts wil be preserved by the same remedies which were appointed ro preserve the Lungs. But if a present Loosens, or dysenterie be urgent, first detergent and lenitive Remedies must be used and afterwards astringents. And so Clysters must be made of calybeated Milk, of Sugar and yolkes of Eggs: and afterwards of a decoction of barly and red Roses with the yolk of an egg; and last of al, of a decoction of Plantaine, Knot-grass, and Prunella or Self-heal, and other Simples set down in our Cure of the Disentery. And it is to be observed, that a loosnes in children that have Pox, is oftentimes caused by wormes, which lasts dureing the whol disease, whence they are in the danger of Death; because the expulsion of the Pox is therby hindred wholly or lessened. Which is easily known by the thicknes and viscositie of the excrements, and their grey or whitish color: then must be adminstred such things as kill Worms: and sweet Clysters must be injected.

Somtimes also the kidneys are affected and are exulcerated, whence arises Pissing of Blood. In this Case it is good to give an emulsion of the four greater cool seeds, with trochiscs of Alkekengy, de Carabe, and other things set down in our chapters of Pissing of Blood.

Among external parts, the Eyes are most of all to be guarded from the smal Pox. For being endued with a soft and humid substance; the matter of the Pox is easily driven unto them: whence arise grevious calamites and somtimes toral Blindnes.

Before the Pox break out therefore, or when they begin to appear, the Eyes must be anointed every hour with Plantane and Rose waters, in which a little saffron is dissolved; or with the following Eye-Salve, which doth more effectually preserve them.

Take *water of Roses and Plantane, of each one ounce and half. Pouder of Sumach seeds two drams. Infuse them a little while hot. then strain the liquor hard out. to the strained liquor ad Camphire ten graines. Saffron five graines. Make all into a Water for the Eyes.*

It wil be yet more effectual, if Instead of the waters, the juices of knot-grass and Sheperds-pouch be mingled with the rest.

And if some Pox begin to Peep out of the Eye it self, pidgeons blood must be often dropt in, that their resolution may be hastened. then also this following Eye-water is to be used.

Take *Red Rose water two ounces. Eye-bright water half an ounce trochisci albi Rhasis one dram. Tutty prepared one Scruple. Champhire five graines. Saffron two graines. make al into an Eye-water and wet the Eyes often therewith, with a thin linnen rag.*

But when the Eyes so swel that they cannot be opened, they must often be washed with a decoction of Linseed, Fenugreek seed, Quince seed and Mallow seeds; and so the swelling wil fal and the Eyes open and if when the Eyes are opened, there appear cloudes in them they must be scoured off with Sugar-candie finely powdered.

And finally if the Eyes are ulcerated, they may be cured with this following Eye salve.

Take *Washed Cerus three drams: Sarcocol one dram: Gum traganth one Scruple: Opium two grains: With mucilage of Gum traganth drawn out with Plantane water make all into little cakes or trochiscs, which must be dissolved in Womens Milk, or red Rose water, when it is to be used and in all other things proceed, as Practitioners teach at large, in the Cure of Ulcers of the Eyes.*

To preserve the Nostrills, they must often smel to Vinegar. But a Collyrium of juyce of knot-grass, and shepherds pouch, Sumach seeds and camphire formerly prayed, wil work more effectually; let the tent be often moistened therein, and put up into the Nostrills. If notwithstanding, the Pox do grow within the Nose, they quickly become hard Scabs, which are often to be nointed with Oyl of sweet almonds, that they may the sooner fal off. And finally if an Ulcer happen in the Nose, it must be dressed with a liniment of the Oyl of Eg-yolkes and juyce of Plantane, stirred together in a leaden Mortar.

To

To preserve the Face, some wash it with Rose-water and other Astringents. Which I cannot approve of: for a great part of the impurities flows unto the Face. For the Skin thereof long loose and soft, is very fit to receive Excrements. Wherefore if those impurities which Nature sends hither, be repelled, being retained within they may cause great hurt; and therefore the motion of Nature is no waies to be hindred. But this ought to be the Physitians care, to hinder that the Pocks which break out in the Face, do not leave behind them pits and Scarrs, which doth often deform the Countenance. And this he shall in good measure perform, if when the Pocks are ripe, and are high and white in the middle (which is wont to fall out upon the ninth day of the Disease) he cause them to be nointed with a Fether twice a day with Oyl of sweet Almonds, drawn without fire, until the Crusts fall off, For by this Medicine the Acrimony of Choller is tempered, the ripening of the Pocks is hastened, and the falling off of the Crusts furthered; which otherwise sticking fast, doth exulcerate the Skin more deeply, by reason of the Quittor which lies under them. Oyl of Nuts new drawn without fire, mixed well with a like quantity of Rose-water, till they come to the form of a Liniment, is excellent for the same purpose.

If by neglecting the Remedies aforesaid, or through the extream malignity of the Humor, there remain Pits and Pock-holes, all diligence must be used to repair the same. Which notwithstanding is extream hard to do perfectly; although many have taken great pains thereabout to gratifie Virgins, and other Women, who are exceeding careful to preserve their Beauties. Among infinite Medicines recorded by Authors to this intent, I shall propound the choisest.

And in the first place, Oyl of Eg-yolks does nourish and engender Skin, and therefore is very convenient to fill the Pock-holes.

Wethers Suet fresh and new, melted and done out with a Fether, is effectual to the same purpose.

But the filthyness of Pock-holes is much amended, if they be washed first with Yarrow-Water, or Cows-dung-water, distilled in *May*, and then anointed with Mans-Grease.

Forestus does much magnifie this following Oyntment.

Take *Oyls of sweet Almonds and white Lillies, of each one ounce: Fat of a Capon three drams: Pouder of Peony Roots, of Orice and Lytharge of Gold, of each ten grains: Sugar-Candy one scruple. Mingle al well in a warm Mortar, strain them through a Cloth, and noint the Pock-holes therewith morning and night. And afterwards let them be well washed with Water distilled out of Calves-feet: and when that is not at hand, use the Water of Yarrow in stead thereof.*

Neither must I omit that which many Practitioners do teach, viz. That when the Pocks be ripe, they must be bored through with a golden or a silver Needle, least the Quittor tarrying long in them, should leave holes in the part. Which Practice, is notwithstanding, now in a manner grown out of use, since Experience has taught, that the Pocks being bored are longer in healing and doth longer hold their Crusts, because of the Weakness of Natural Heat, caused in the Part by boring, whereby more deformed Scars are left behind. And therefore it is better to abstain from this boring, and to commit the evacuation of the Quittor to Nature alone.

To conclude this Cure, I shall subjoyn how those dispositions of Itching and Exulceration which happen to persons that have the small Pocks, may be remedied.

And in the first place, When the small Pocks come forth, or when they begin to ripen, sometimes an huge pain or Itching does afflict the Patients; especially in the Palms of the Hands and Soales of the Feet, because the thickness of the Skin in those parts hinders the Eruption of the Pocks.

Which Symptom you shall help, if you cause those parts to be held in hot Water, or Foment them a long time with an Emollient Decoction. But when there is great Itching in the Face, which compels the Patients to scratch, whence great deformity and foul Scars follow; use this following Remedy.

Take *leaves of Pellitory of the Wall one handful: Flowers of Chamomel and Melilote, of each half a pugil. Boil them in a pint of Scabious Water, To the strained Liquor ad three ounces of Honey-suckle Water. With this Liquor hot, often let the Itching Pocks be moistened, by dipping a thin Rag or Cotton Wool therein, and so applying the Liquor gently to them.*

Now the Ulcers which arise from deep and malignant Pocks, are to be cured with *Unguentum album Rhasis*, or with an Oyntment of Lead made after this manner.

Take *Calcined Lead two ounces: Litharge one ounce: Ceruß washed and Vinegar, of each half an ounce: Oyl of Roses three ounces: Honey of Roses one ounce: Three Yolks of Egs: Myrrh half an ounce: Wax as much as shall suffice. Make all into an Oyntment.*

FINIS.

A

PHYSICAL DICTIONARY,

Expounding such words, as being terms of Art, or otherwise derived from the Greek and Latin, are dark to the English Reader.

This Dictionary is of use in the reading of all other Books of this Nature, in the English Tongue.



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A

Physical Dictionary.

A

Apophlegmatisms, Medicines drawing flegm out of the Head.

Agarick trochiscated, See the *London Dispensatory* in English.

Apozeme, A Medicine made of the Broth of divers Herbs, and other Ingredients; unto which sometimes certain Syrups are added.

Animal Faculties, The Powers of Hearing, Seeing, Smelling, Tasting, Feeling; of Imagination, Understanding, Memory, Will, Going, Standing, and all Voluntary Motion.

Aranea Tunica: The Cobweb-Coat, or Tunicle

Abdomen: The Belly, or Paunch

Apoplectick Water: Good for the Apoplexy

Autumn: Harvest, the Fall of the Leaf

Actual Heat: is Heat that may be felt by the hand, such as is in Fire, and all things heated thereby; or in the Body of one in a Feaver: It is opposed to *Potential Heat*, viz. That cannot be felt by the Hand, as the Heat in Pepper, in Mustard seed, in a Flint, in unslaked Lime: and the contrary of *Actual Cold*.

Affected: Troubled, Diseased: An Affect, a Disease, Trouble, Disorder.

Aquæ Acidulæ: The Spaw Waters, like those of *Epsam*, *Barnet*, and *Tunbridg*, with us.

Absurdities: Unreasonable things

Acrimony: Sharpness, such as in Mustard, Pepper, and in divers Humors of the Body which cause sickness.

Ascent: Going up.

Apply: lay on.

Actually Cold: see *Actual Heat*.

Augment: Encrease.

Accidentally: By hap, by chance, upon occasion.

Adventitious: not Natural, but springing from external causes.

Attracting: drawing together, or causing.

Attracts: draws to.

Accident: something that happens upon a Disease; *vide* Symptome.

Adstriction: binding together, shutting up.

Antecedent Cause: foregoing Cause, is opposed to the Conjunct Cause. Abundance of Flegm in the Body is the Antecedent Cause of the Optick Nerves being stopped by flegm; but the Flegm in the said Nerves, is the Conjunct Cause &c. of other Diseases.

Articulate Voyce: A distinct Voyce, such as that of Man-kind, termed Speech.

Abstergent: Clensing away filth.

Access: Addition, joyning to, help, or company.

Afflux: flowing to.

Astringents: Medicines that bind together, and straiten the Pores and Passages of the Body.

Astriction: binding, knitting together.

Anodines: Medicines which asswage pain.

Anastomosis: an opening of the Mouths of Veins, by which means Blood issues.

Astringe: bind, fasten, close.

Acute: sharp, violent: a Disease is termed Acute, when it quickly changeth to health or death.

Adustion: burning: *Adust*, burned. Blood is said to be adust, when by reason of extraordinary heat, the thinner parts are evaporated, and the thicker remain dreggy and black, as if they were burnt.

Asthmatical: troubled with shortness of breath.

Attest: witness, declare.

Aneurism: a Swelling caused by a dilatation of the Arteries external Coat, the internal being broken.

Axungia: Grease.

Atrophy: want of Nourishment, when the Body pines away.

Attenuating Medicaments: are such as make thick Humors thin.

Axiom, or *Theoreme*: an acknowledged, undoubted Truth.

Adjacent: lying neer, bordering upon.

Aromatized: Spiced, perfumed.

Anus, the Fundament.

Astringe, to bind.

Atomes: smal Moats hardly visible, and that cannot admit of any division.

Adverse: contrary to, of a contrary Nature.

Augment, is the time of a Disease, while it grows still more vehement, until it comes to its height, which is called the state of the Disease, and then the Augment ceases, because the Disease is now at a stand, and encreaseth no more.

Alteratives, are such Medicines as only change

the qualities of the Body and its Humors, by heating, cooling, moistening, drying, &c. they are opposed to such as do cause Vomiting, Purging, Sweating, Transpiration, &c.

Adjuncts of a Disease, are qualities, dispositions, and Symptomes annexed thereunto.

Aliments, are what ever is taken into the Body to nourish the same; as all kinds of Meat and Drink.

Adjuvant Causes, are such as serve and assist the principal Cause; so is the Taylors Boy an adjuvant Cause assistant to his Master, the principal Cause of a Garment. So in Diseases, whatever assists the Primary Cause, is termed an Adjuvant Cause.

Alexipharmical things, are such as resist Plague, Poyson, and all venemous Diseases.

B

Balneum Mariæ; the manner of stilling or digesting, when the Glass containing the Ingredient, stands in a Vessel of Water, with Fire made under it.

Bolus: A Morsel; a Medicine to be taken from a Knifes point.

Bellicucanæ Thermæ: Hot Baths in *France*, so called from the place where they are.

Breathing of a Vein; Blood-letting, properly if but little Blood be taken away.

Bronchia; the hollow gristly Pipes that spread themselves through the Body of the Lungs, being Branches of the Wezand or Wind-pipe.

C

Caruncle; a little bit of Flesh that grows and sticks out on any part of the Body.

Catarrh; a Defluxion or Distillation of Humors from the Brain, into any part of the Body, especially the Lungs, causing Coughs.

Condense, to make thick.

Contention; Digestion in the Stomach, &c.

Cataphora; a deep sleep.

Cupping-glass, is that which Physitians use to draw out Blood with Scarrifying of the Skin, Glasses fastened with lighted Tow or Flax.

Catalepsis; Congelation, or stifness of the Body.

Caustick, are Medicines which burn the Skin and Flesh to make Issues, &c.

Coronal Suture; the Seam which runs through the Crown of the Head, where the two sides of the Skul close.

Crude; Raw, undigested: So Meat not well boyled or rosted, is Crude; and Blood and other Humors not well digested by the Stomach, Liver, &c. are called Crude.

Conjunctiva; a Coat of the Eye, so called because it sticks fast unto the Eye, and keeps it in its place.

Actual *Cautery*, is burning with a red hot Iron.

Congelation, freezing together, stifness with Cold.

Constipation, stopping up.

Chollick, pain and griping of the Gut *Colon*; and because the pain proceeding from the Stone, is very like thereunto, it is called the Stone-Collick.

Cerates, Medicines made of Wax, and other Materials, stiffer than an Oyntment, and softer than a Plaister, to be applied to divers parts.

Cephalick, or *Capital Opiate*, Head Electuary.

Cephalick Pills, Head-pils.

Cephalick Plaister, Head-Plaister.

Collyrium, an Eye-salve.

Convulsion, a drawing together, a shrinking together.

Contracted, drawn together.

Cornea, a Coat of the Eye like the Horn of a Lanthorn. See *Vestingus* in English.

Chyrurgeon, Surgeon.

Circumvolution, turning round like a wheel or whirl-wind.

Compression, thrusting or squeezing together.

Contusion, Bruising, a Bruise.

Cold seeds, See the English Dispensatory.

Compress, thrust together, squeeze.

Condense, thicken, condensing, thickening; a Condensation, a thickening.

Coarctation, a straitening, thrusting together.

Contraction, drawing together, shrinking up, &c.

Contracted, drawn together.

Confirmed, A Disease is said to be confirmed, when it is perfect, setled, and hath taken root.

Couched with a Needle, that is, taken away with a Needle, or pressed down with a Needle.

Centre, is properly the middle point within a Circle, from whence all Lines drawn to the Circumference, are equal; it is taken figuratively for the middle of any thing.

Continuity, the oneness, the joyning together without interruption.

Compact, firmly united, wel thrust and crowded together. So Gold, Lead, and other Metrals, are said to be compact, compared to Cork, Spunge, and light Wood which are not compact, but hollow and pory.

Concocted: An Humor is said to be concocted when it is either turned into good Blood, as sweet Flegm is wont to be; or when it is separated from the Mass of blood, and made fit for expulsion.

Concoction; a boyling, or boyling together: when the meat in the Stomach is changed into a substance like Almond Cream; that change is called Concoction.

Cataplasm; a Pultis.

Cavity; hollowness.

Crisis; by bleeding at the Nose, or by vomit, page 57. that is a breaking away of the Disease by Natures Conquest of the Cause, which

which she drives forth by the Nose or Mouth.

Crystalline Humor; a part of the Eye which resembles a little Cake of Crystal; if you open a Calves Eye carefully, you may take it out whol.

Conus, is a Geometrical Figure, representing a Sugar-Loaf, or an Extinguisher; which Philosophers make use of when they teach how the Eye perceives its Object.

Connatural; which is bred with a Man; as he that is born with one Eye, or but two Fingers: such a Disease is termed Connatural.

Convex; bunching out like the back-side of a Buckler or Platter.

Conjunct Cause of a Disease, is the immediate Cause; so Flegm stopping the Optick Nerves is the Conjunct Cause of Blindness; whereas taking of cold, swimming in cold water, eating flegmatick meats, sleeping after Dinner, were the remote, or far distant Causes, &c.

Constriction, a drawing together, a straitening.

Congestion; a gathering together or heaping up.

Cumulation; the same with Congestion. These words are opposed to defluxion. When a a part is diseased by an Humor sent from another part, it is termed Defluxion; when the Humor is first gathered in the part it self, by reason of its own proper weakness, it is termed Congestion or Cumulation.

Conjoyned Matter; see *Conjunct cause*.

Corroding; biting, gnawing, eating.

Consolidation; closing up of a Sore or Wound, &c.

Carus; foulness, rottenness, corruption of a Bone.

Cicatrize; to bring to a Scar, to close up a wound or sore.

Commissura; the Mold of the Head, where the parts of the Skul are united.

Cavous; hollow.

Critical Evacuations by bleeding, stool, &c. are such as Nature procures to drive out her vanquisht Enemy; and are means and tokens of Recovery. Symptomatical Evacuations are such as proceed from the vehemency of the Disease, before Nature hath mastered the offending Humor, and they prove bad tokens.

Calcine; to burn to Ashes in a Crucible, &c.

Corrode; eat, fret; Corroding, eating, fretting.

Cronical; long lasting.

Cacochymical; abounding with evil Humors.

Critical day; See Day of Judgment.

Corrosion; a fretting, eating asunder.

Conjugation; a pair of Nerves is so called.

Cardialgia; Heart-burning.

Crudities; Rawness, indigestion.

Chylus; a Liquor like a Posset, into which all Meats are changed in the Stomach, if the Digestion be good.

Cydoniatum; Conserve of Quinces, or Marmalade.

Cardiogmos; Heart-burning.

Carminating Medicines; are such as do break Wind.

Constringe; draw together.

Carminative; expelling Wind.

Chalibeat Vinegar, and *Chalibeate Water*, are such as have steel quenched in them.

Carabe; Amber.

Cronical Diseases; such as usually last very long, as Quartan Agues, Stone, Dropsies, &c.

Crystal of Tartar; Cream of Tartar.

Consistence; Body, or Substance.

Catheter; an hollow Silver Instrument to thrust into the Bladder when the Urine is stopt by a stone, to thrust back the stone, and let out the Urine.

Complication of Diseases; when divers Diseases are in the Body at the same time, especially if they depend one upon another.

Coalition; healing up, growing together of a Wound or Ulcer; or any Part that ought to be open, as of the Privity in some Girls.

Coincide; is to happen together at one and the same time.

Cachectical Persons, are such as have their whol Bodies blown up with a soft and moist swelling, with the color of the Face white, or lead-colored. Also their Legs especially swell, and their Face is bloated.

Coindicants, are divers things in a Disease or Patient, which plead for one and the same Remedies. So in a putrid Feaver, the person being full bodied, and the season warm also, the person lusty and yong: The Feaver, the fulness of Blood in the Patient, his Age and strength, and Season of the Year, are Coindicants that he must be let Blood.

Contra-indicants, are divers considerations that dissuade a Remedy: As when in a putrid Feaver, old Age, Winter Season, Weakness, are Contra-indicants, that dissuade from Blood-letting; which the Feaver simply considered, doth indicate, or perswade and hint out.

Coction of Humors, is their being separated from the Mass of good Blood, and fitted for expulsion: As when thin Humors are moderately thickened, and tough clammy Humors are cut and divided. This Coction of Humors is known by the Urine, when it hath a light, even, and smooth setling, &c.

Causa sine qua non; The Cause without which a thing cannot be, though it be not the principal Cause thereof: So a Taylors Shop-boord is a Cause *sine qua non*, without which a Garment cannot be made, though himself and the stuff, the shape and the end be principal Causes.

Commemorative; bringing to remembrance what is past.

Cicatrize; is to bring unto a Scar, which is done when Wounds and Ulcers are healed up.
Contumacy; ſtubbornneſs, rebellion.

D

Diureticks; Provokers of Urine.
Diagnoſis; the knowledg of a Diſeaſe.
Diſtillation; a flowing down of thin Humors from the Brain into ſeveral parts.
Decoction; the Liquor wherein things are boyled, the Broth of Herbs, and other Medicaments.
Diagnoſticks; the Signs to know what Diſeaſe a Patient hath.
Defluxion; the ſame with Diſtillation: alſo a running together of Humors into any part, cauſing pain or ſwelling, &c.
Delirium; Dotage, raving, talking idlely, in time of ſickneſs eſpecially.
Diarrhœa; a ſimple Looſneſs, without Inflamation of the Guts, any extream pain, or voiding of Blood.
Diaphœnicon; ſee the *London Diſpenſatory* in Engliſh.
Diacatholicon, Diacarthamum; ſee the Diſpenſatory.
Diet; this ſignifies in many places a Diet drink.
Diminiſhed; Leſſened.
Diminution; a leſſening.
Diſcuſs; diſpel inviſibly: as a Plaiſter that makes a ſwelling go away without breaking, is ſaid to diſcuſs the ſame: becauſe the Matter of the ſwelling is not ſeen to come away; but is turned into ſteems and vapors, and partly drinks up the ſubſtance of the Plaiſter, and ſo vaniſheth inviſibly.
Declination of a Diſeaſe; is the breaking of the Diſeaſe, when it begins to tend to health, which is known by the Symptomes growing more gentle.
Diverting Medicines; which turn aſide the Humor cauſing the diſeaſe, ſo that it flow not into the part offended.
Diſlocation; putting out of its place.
Derived; turned away from.
Diffuſe; ſpread abroad.
Diſſipated; ſcattered abroad.
Demonſtrated; clearly proved from undeniable Arguments.
Depravations; marrings, ſpoilings, hurtings.
Depreſſed; made flat or hollow, dented in.
Diſtemper; any exceſs of the four firſt qualities, Heat, Cold, Moiſture, Dryneſs. There are reckoned four ſimple or ſingle diſtempers, viz. a Hot, a Cold, a Moiſt, a Dry: and four compound, viz. Hot and Moiſt, Hot and Dry, Cold and Moiſt, Cold and Dry.
Dilated; widened.
Dilatation; widening.
Debility; weakneſs.
Diſtortion; writhing, wreſting, crooking.
Diſſipating: ſpread abroad, driving away.
Derivations: drawing an offenſive Humor from the part diſeaſed, to ſome other part neer it.
Digeſtives: Medicines which prepare evil Humors for to be driven out by Nature.
Diſſolved: melted, conſumed away. It is uſed of ſwellings that are brought down by Oyntments or Plaiſters; and in other caſes when the Humor cauſing the Diſeaſe, is inviſibly driven away.
The *Drum* mentioned in page 96. is a pretty little hollow bone in the Ear, covered with a thin Skin like a Drum, which being beaten upon by another little bone like a mallet, doth cauſe ſounds to be heard in the Ear. See *Veſlingus* his Anatomy in Engliſh.
Diapedeſis; is an iſſuing of the blood through the Pores of the Veins.
The *Day of Judgment*, or *Critical day*: is that day in feavers eſpecially wherein it appears, on which ſide ſentence is given, whether on the Plantifs, viz. the Diſeaſes; or on Natures, the Defendant; ſo that by ſome Evacuation, or ſwelling, or other great mutation to the better or worſe, it appears whether the Patient is like to recover or not.
Diſtention: ſtretching.
Depraved: marred, ſpoiled.
Dilatation: widening, opening.
Diaphragma: the Midrif.
Dyſpnœa: ſhortneſs of breath.
Dyſentery: a Bloody-flux.
Diagrydiates: Medicines that have Scammony or Diagrydium in them.
Diſſolution of Natural Heat: a decay of Natural Heat.
Diaphoretick Sweats: which are cauſed by Nature, oppreſſed with a malignant Humor, and forcibly driving the ſame out by Sweat.
Dung-gate; the Arſe-hole.
Diſtillations by deſcent: are when the Liquor which comes from the Materials ſtilled, doth not riſe up above the ſaid Materials, as in ordinary diſtillation; but falls down under the Materials ſtilled, which are therefore laid upon a Grate, that the bottom of the Veſſel may be empty, and free to receive the diſtilled Liquor.

E

Excrement: the Dregs of Digeſtion in the Body, voided by Dung, Urine, and Sweat.
Evacuation: an emptying or voiding forth, purging.
Epiſpaſtick: a Plaiſter to draw a Bliſter, called alſo a Veſicatory, or any ſtrong drawing Plaiſter.
Errhines: Medicinal Liquors to be ſnuft up the Noſtrils to purge the Brain.

Empyema:

Empyema: Empyems a corrupt matter between the breast and the lungs following a Pleurisie.
Erysipelas Oedematosum: a certain swelling arising from choller and flegm.
Elephantiasis: a leprous disease, which makes the Patients skin like the Hide of an Elephant.
Electuary: See the *London Dispensatory*.
Expulsion: driving forth; as of Excrements, Dung, Urine, Sweat, &c.
Expel: to drive forth.
Eruption: breaking forth.
Extinguished: quenched, put out.
Emunctuaries or *Emunctoryes*; certain waies and passages that Nature finds to drive ill Humors into, from the Principal Parts; as certain Kernels behind the Ears; and in the Groins, under the Arm-pits, &c. where risings happened in time of Pestilence &c.
Essentially springing P. 11. that is primarily and principally, not accidentally or occasionally.
Ebullition: boiling and working of the blood in the Veins, like New-wine in a Cask.
Extension: stretching out.
Extenuation: Leanness, Consumption of flesh. Extenuating making thin.
Expulsive faculty: the power of our body which drives forth Dung, Urine, Sweat, Vapors &c. every part partakes of this Ability, or Faculty.
Eminent: neer at hand approaching.
Erysipelas: a swelling caused by choller. *Erysipelas Phlegmonodes*, or *Phlegmon Erysipelatodes*. Is a swelling caused by Inflamation of Choller and Blood.
Emulsions: Almond milkes; and milkes made of cool Seeds, &c.
Electuaries. Medicines made up of Conserves of Flowers or Herbs; to which is added some sweet Spicy pouder for the most part, and so with Syrup it is made up in the form of Mithridate or Treacle.
Epithemes: are Medicines applyed in Bags, commonly upon the Heart or Stomach, Liver or Spleen &c. Certain convenient pouders being put in a Bag, or between two cloths, and so wet in Wine or other convenient Liquor, are laid upon the Stomach, Heart, &c.
Essential to the Disease: that is of the very being or substance, so that without that, the disease could not be. So Heat is Essential to a Feaver.
Excrements: dregs and refuse of our meat and drink after Concoction, voided by dung, Urine, Sweat, and invisibly through the Pores.
Excrementitious: of or belonging to Excrements, impure, preternatural humors are so called.
Extenuate: make thin.
Expressed: Squeezed out.
Epidemical: common to a whol Nation. So the Plague, small Pocks, Loosness, Sweating-sickness, &c. when they are rise all over a Nation, or Country at one time, they are called Epidemical diseases.
Elixir Proprietatis. A Medicine invented by *Paracelsus*. Take of the best Aloes, Myrrh & Saffron, of each half an ounce; Pouder them and put them into a Glass. Then take Muscadine made tart with Oyl of Sulphur, and pour upon the pouder, til the liquor stand four fingers above the pouder: Let them stand and digest in a warm place. Then pour off the Liquor and put on more, till all the Colour and vertue be drawn out from the pouder. At last still the settlings with a gentle fire, and pour that which comes away, to the former Liquor, and let all stand and digest a Month in a warm place, close stopped. The name signifies such a Quintessence, as hath a special propriety of agreement with Mans nature, whereby it comforts and restores the same, in all kind of weakness.
Emollient: Medicines that soften.
Eroded: eaten a sunder, eaten up.
Extraction: pulling out.
Exquisite: perfect, in an high degree.
Escharotically: see Caustick potential.
Embrochated: moistened, bedewed, bathed.
Erosion: fretting, eating.
Eclegma. See Lambitive.
Extream parts: the Armes and Legs.
Emplastick diet: consists of such meats as are of a clammy substance, viz. Calves Head and Feet, Sheeps-trotters; all Feet of Beasts, Tripes, Gellys, &c.
Excreta and *Retenta*: things voided out of the Body, things retained, or kept in.
Eradicate, pluck up by the Roots.
Exasperated: pained, vexed, molested.
Equivocal: Signs of a Disease, are such as are common to it and other Diseases.
The Efficient Cause: is the working or making Cause, so a Tailor is the Efficient of a Garment; The Material Cause is the stuff, a thing is made of which the Efficient works upon; So the Cloth or Silk is the Material Cause of the Garment. The formal Cause, the shape that makes it a Coat, or Cloak, or Doublet; the Final Cause, is the end why it was made, viz. to hide nakedness, keep off Sun and Cold, and to adorn the body.
Emulgent Veins: which bring the Wheyish Excrement of the blood unto the Kidneyes where it becomes Urine, and is passed by the Ureters into the Piss-bladder.
Evaporation: a steeming out of Vapors.
Egress: coming forth.
Evaporated: steemed away, as Water that spends away in boiling.
Evacuators: Medicines which empty out evil Humors, either by vomit, Purge, &c.

Exhalations: Vapors drawn up by the Sun, out of the Earth and Waters.

Eventilated: Fanned, purged as Corn by fanning. So Exercise is said to eventilate or fan the Body; because the motion opens the Pores, and drives many vapors out.

Eneorema: that which hangs like a cloud in Urines, especially when the Disease is breaking away.

Emollient Decoction: a softening moistening Decoction, made for Clysters to soften and moisten the hardened Excrements of the Guts.

An *Eschara*, or *Eschar*; is the Core that falls off from a part that hath had a Caustick applied thereto.

F

Fumigations: Perfumes and others things, burnt to qualifie the Air in a sick mans chamber.

Fracture: breaking, as fracture of the Skul or Arm, &c.

Fomentation: when linnen Cloaths or Spunges are dipped in some Liquor, and applied to the diseased part, and after renewed.

Functions of the Brain: the Abilities of the Brain, to Hear, See, Imagine, Understand, Remember, &c.

Frictions: Rubbings.

Furor Uterinus: Womb-Madness; when Women are mad by reason of a disorder in the Womb. See the Chapter of that Disease.

A *Flux of Humors*: flowing of Humors.

Febris Catarrhalis: a Feaver caused by Rheum falling from the Head.

Fabrick: Frame, making up, composition.

Frontal Vein: Fore-head Vein.

Fortified: strengthened.

Fistula: an hollow, deep, but narrow Ulcer that will not be closed up.

A pair of *Forceps*, a final Instrument like a pair of Tongs, to draw forth any thing out of the Ears, &c.

Fluid: apt to run and flow like Water, and other Liquors.

Filtration: straining through a brown Paper, or by means of a piece of cloth hanging out of one Vessel into another.

Filter: to strain as aforesaid.

Fermentation: the working of Humors, as new drink works in the Barrel.

A *Feaver Symptomatical*, is a Feaver caused by some other foregoing Disease; in respect of which Disease, the Feaver is but a Symptom or Accident.

A *Flatulent* and *Pituitous Chollick*, is a Chollick caused by wind and flegm.

Formicans Pulsus; a weak, feeble, quick Pulse, that feels under the Fingers like creeping Pismires, from whence it is named.

Form: See Efficient Cause.

Fluxive: apt to flow and run like Water and other Liquors.

Friable: is crumbly, short, like costly Cake-bread, Pie-crust, Puf-past, &c. So Fishes that have a short crumbly substance, not clammy or slimy, such as Soals, Smelts, Trouts, are said to be friable in comparison of Eels, Carps, Tenches, &c.

G

Gum Animi: Indian Amber.

Gargarisms: that is, Medicines to Gargle in the Throat to wash sore Throats,

de Gutteta: a Pouder used in Falling-sickness and Convulsion of Children by the French. It is described page 33. at the bottom.

Going about: by fits.

Generating: breeding, begetting.

Glandules: Kernels, such as are about the Throat, aad are called the Almonds of the Ears, and such as the Sweet-bread, &c.

Gate-Vein: Vena Porta. See *Vesingus* Anatomy in English.

Generous Wine: strong Wine, as rich Canary, Muskadine, &c.

Glutinations: Clammines like Gum about the corners of the Eyes.

Glutinators: things which glue and close up broken Veins, &c.

Glutinous: clammy like Glue.

A *Gangrene*: is a corruption of a part tending to the utter deading thereof.

H

Hypochondria: the parts beneath the Ribs.

Hemiplegia: the Palsey possessing one side.

Hydrelæum: a Bath and Oyntment; that is, of Water and Oyl beaten together.

Hippocras Bag: a Bag of Wool shaped like an Extinguisher, through which Hippocras and divers Medicines are strained.

Hereditary: from Father or Mother, to Son or Daughter.

Hydromel: Honey and Water, Mead, Methegline.

Hemorrhoids: Veins of the Fundament, to which Leeches are applied.

Head-Herbs: Rosemary, Betony, Sage, Lavender, sweet Marjoram, Hyssop, Balm, Cowslips, Roses, Violets, Lettice, Borrage, Buglois, &c.

Habit of Body: is the whol bulk and substance thereof.

Humidity: Moisture.

Holy Fire: a red Inflamation, St. Anthonies fire, the Rose.

Hemorrhagies:

Hemorrhagies: breaking forth of Blood from any part of the Body.
Hysterical Fits: Fits of the Mother, Wombsickness.
Hermetical Physitians, and *Hermets*: Chymists, such as trade with Furnaces, Pots, and Glasses, to draw Spirits, Oyls, Waters; to make Salts, Quintessences, &c. called so from *Hermes Trismegistus*, an old Egyptian Phylosopher, who is thought to have been a Chymist.
Horrors: Shiverings.

I

INfuse: that is, steep.
Inflamation: great Heat.
Indication: is an hinting to the Physitian what he is to do. So extream heat is said to give indication of cooling; extream fulness of blood gives indication of blood-letting; want of a womans Courses gives indication of blood-letting, &c.
Jugular Veins: that is, the Throat Veins. See *Vestingus* Anatomy in English.
Insensible Passages: which cannot be seen, nor felt, by reason of their smalness.
Influence: flowing in.
Inherent: sticking fast within, seated and abiding within.
Inordinate: disorderly, unnatural, and unfitting.
Internal and External Sences: The Internal are, Common Sence, Imagination, Understanding, Memory: The External are, Seeing, Hearing, Smelling, Tasting, Feeling.
Intercepted: stopped in the middle way.
Internally and Externally: inwardly and outwardly.
Juleps: pleasant Drinks made of distilled Waters, or the broth of Barley, and other convenient things, and sweetened with Syrups or Sugar; given chiefly in Feavers to cool and quench Thirst.
Infusion: a strained Liquor wherein Medicaments have been steeped, either hot or cold.
Incrassate: thicken.
Incrassating: thickening.
Insensible: not to be perceived by the outward Sences, of Seeing, Hearing, Smelling, &c.
Illumination: enlightening.
Influx: flowing into.
Inversion; turning the inside out.
Intermission: ceasing, leaving off.
Inveterate: old, of long continuance, rooted.
Inclination: that is, by holding the vessel on the one side, and so powring the cleer from the setlings: this is called to clarifie by Inclination, in opposition to clarifying with the white of an Eg by boyling, or any other way.
The *Iris*: a party-color'd round Circle in the sight of the Eye like a Rainbow, from whence it hath its name.
Incarnate: to breed flesh.
Irritation: provocation, stirring up.
Involuntary Tears: which are not shed by force of sorrow working upon the mind, but by force of a bodily Disease.
The day of *Indication*: is that day in a Feaver on which may be collected what wil betide upon the following Critical day. So the fourth day doth hint what is like to happen on the seventh; and the eleventh hints what is like to happen upon the fourteenth; and the seventeenth what will happen upon the twenty one; and the twenty four what will betide upon the twenty eight. Therefore the fourth, eleventh, seventeenth, twenty four, are called dates of Indication, or telling and declaring.
Judged, see *Day of Judgment*.
Infirm: weak.
Insipid: Tastless.
Incising Medicaments; are such as cut and divide tough flegm, and other clammy humors, whereby they become fit for expulsion; such is Oxymel, &c.
Intestines: the Guts.
Intension and Remission: Increase and decrease, growing stronger or weaker.
Injection: is a Medicinal Liquor cast with a fitting Instrument into the Womb, Bladder, or Fundament, when there is soreness of hemorroids, &c.
Inserted: fastened or planted into.
Inspissate Juyce: is Juyce of some Herb boyled till it be thick, as Honey.
Illustrated: made cleer and manifest.
Invasions of the Gout: fits of the Gout, or of Agues, may be called Invasions of the said Diseases.
Intense: vehement, strong.
Indicate: declare, point out.
Impatted: wedged in, thrust far in.
Irrigations: moistenings, sprinklings, waterings.
Intervention: coming between, happening together with.
Intermediate: coming between.
Intermitting Pulse: is that which holds up a while, and then beats again; and then stops, and then beats again, which is a sign of great weakness.
Incoctibility: an unaptness to be concocted or digested, or an impossibility thereof.

L

LEnitive: a gentle, refreshing, cordial Medicine.
Ligatures: or strings wherewith the Joynts of Bones and the Gristles are compact and bound together.
Lozenges: the same with Tablets, being the

form of a Medicine made up.

Luxation: is when one Joynt is loosned from another.

Liniment: Oyntment.

Ligatures: bindings of several parts to draw the blood and Humors from the part diseased, to the parts bound, by reason of the pain of binding which must be very hard and straight.

Loosneß of Continuitie: separating and dividing of things closed and united. So a wound is termed a loosening of Continuitie; because, it separates these parts of the skin and flesh which were formerly united together.

Laxe: loose, slack, as an unbended Bowstring.

Livid: black and blew.

A *Lanbative* or *Lohoch*: is a medicine to be lickt from a Liquoris stick, and to be swallowed softly down, being chiefly ordained for the Lungs.

Iron-water: Water wherein Iron hath been quenched. Smiths forge-water.

Laxative: which makes the belly loose.

Livid: black and blew, Lead-coloured.

M

Meninges: or films of the Brain, coats that cover the brain.

Masticatories: that is Medicines to be chewed to bring away Rheum.

Mesraick Veins: little Veins that are thought to carry chyle from the stomach to the Liver. See *Vestingus Anat.* in English.

Malignity: venemous or poysonful quality of certain humors and Diseases which make them very dangerous, and for the most part deadly.

Matter, or *Quittor*: a snotty kind of filth which comes out of Imposthumes when they break, and out of Ulcers when they are in a good way of cure.

Magistral Syrup: is such an one as is invented by a Physitian for his Patient, in opposition to those Syrups commonly kept in shops.

Matrix: Womb.

Membrana: skin or coat of the Arteries, Veins, &c. Membranes, skins or coats.

Mortification: a deading of any part of the body.

Malign: venemous, poysonful. See Malignity.

Mother: the Womb in Women is so called.

Mitigation: abatement, lessening, growing mild.

The Medium: is that through which we see, as principally the Air, which we look thorough upon objects; also the Water and Glass, Horn, or what ever is cleer, and may be seen thorough, may be termed a medium of sight.

Mammilarie passages, or *productions*: certain little knobby bunchings out of the Nerves, which serve for smelling, resembling Teates, called therefore Teat-like productions. See the English *Anatomy*.

Malax: soften. To Malax a lump of Pil-stuff, is to soften it, that it may work up into Pills the better.

Mercurial Purges: Purges made of Quicksilver, Chymically prepared, such as *Mercurius dulcis*, some kind of Precipitate, *Mercurius vitæ*, &c.

Macerate: steep.

Mesenterie: the skin which knits the Guts together, and runs all along among them, embossed with Fat. See *Vestingus* his *Anatomy* in English.

Membranous: of the Nature of Skin or Parchment.

Morbifical, or *Morbifick matter*; is that which is the principal cause of any Disease.

Minorative purgation: is gentle purgation, such as takes away only a part of the matter of a disease: it is opposed to Eradicative purgation, which is strong, and pulls the whol matter offending up by the Roots; as it were.

N

Nutrition: Nourishment.

Narcotick medicines: stupefying medicines: that dull the sence of feeling, and cause profound sleep.

Nitre: salt Peter, as some hold; but *Matthiolus* conceives the true Nitre is rarely found in these daies.

Natural functions: actions of the stomach, Liver, Spleen, Gal, Kidneyes, in concocting the meat, making blood, and separating and expelling the excrements.

Nauseousneß: sickness of the stomach enclining to vomit.

Nidorous: smelling of burnt fat, or scortched Roast-meat, or fryed Oyl.

Noxious: hurtful.

Nausiosis of the Veins: is when the Veins are sick of bad blood, and doth as it were spew it out into the habit of the body: from whence comes scurvy-spots, morphew, scabs, &c.

Neotericks: are late writers in physick, or any other Art, so called in opposition to the Ancient Authors.

O

Organs: peculiar parts of the body fitted for some notable service of the Spirit, such as the Eye to see, the Ear to hear, the Nose to smell, the Skin to feel, the Lungs to breath, Stomach to digest.

Os Sacrum: the great bone whereon the Ridg bone resteth.

Opisthotones: a Convulsion so named, when the body

Body is drawn backward.

Oval forme: that is the shape of an Eg.

Original: beginning, foundation.

Oedema: a swelling caused by flegm, which is soft and whitish, and has little heat or pain with it.

Obstruction stopping.

Opiate signifies an Electuary: properly it is put for Venice Treacle, Mithridate, Diascordium, &c. which have Opium in them: from whence the name is derived. But secondarily, it signifies any Electuary or Antidote made up in such a body as Treacle, &c. though it have no Opiate in it.

Orifice: the whol which is made by a Surgeon when he lets blood. Also the mouth or passage into the Womb, or Stomach, &c.

Opticks: a Part of Natural Philosophy (though falsly reckoned for a branch of the Mathematicks) opening all the Mysteries of sight, and the reasons of the Deceptions, or mistakes thereof, and teaching to make augmenting Glasses, multiplying Glasses, Perpective Glasses, burning Glasses, &c.

Oblique: slanting, athwart, crooked,

Obnoxious: liable, or subject unto.

Ophthalmy: an Inflamation of the Eyes, causing soreness and redness.

Os cribosum: the bony Sieve. A bone full of small holes, like a Sieve or colendar, placed above the Nose, through which Snot and Snivil, is drained from the brain.

Occult: hidden, unknown.

Oxycrate: Vineger and water mingled together.

Organical Disease. See *Similar diseases*.

The *Systole*, or *diastole* of the Pulse: are the double motion thereof. For when the Artery is extended by the blood, Issuing out of the Heart, and smites the Finger of him that feels the Pulse; that motion is called Diastole, or a widening and stretching of the Arterie: but when the Arterie falls, contracts it self, and sinks from under a Mans Finger, that motion is called *Systole*, a contraction.

Oxyrrhodine: Vinegar of Roses, and Medicines made principally thereof.

P

Prognosis: the foreknowledg of Diseases.

Plethora: a too great fulness of good blood in the body.

Paralysis: the Palsie.

Paraplegia: Paralis, Palsie.

Peripneumonia: an Inflamation of the Lungs, or Lights.

Pericranium: the skins which compasseth the Scul.

A Pugil of Herbs viz. as much as is taken up between the Thumb and the three fore-Fingers.

Physical Regiment: is the right ordering of a Patient, having taken a Purge, or other strong Medicament. As to keep the Patient warm, to give posset or thin-broath after every stool; not suffer him to read, or her to Sow or hold down the head, or to be sad, or to sleep; especially after a vomit, &c.

Phrensie: rageing, Madness joyned with a Feaver. see Chap. 11, Book 1.

Prognostick: foretelling. A Prognostick sign is a sign foretelling what will become of the Disease, and patient.

Privation: loss.

Plethorick: full of blood, too full of blood.

Pores: little holes in the skin, through which vapors and sweat come out. Sometimes they are visible upon the Arm or Leg, being swelled and cloted with cold; resembling a Goose skin for roughness.

Preternaturally: otherwise then the Course of Nature requires.

Perspicuous: cleer, that may be seen through as Glass, fair-water, &c.

Peritonæum: the inner coat of the Belly, which covers the Guts: See the English *Anatomy*.

Pop'ar Ointment: in the shops called *Popaleon*. See the English *Dispensatory*.

Potential coldness: that is coldness in operation, though not to the feeling. So a draught of Whey in which cooling Herbs hath been boiled, being drunk down warm from the fire; is said to be actually hot, because it is so to the hand and palate; but Potentially cold, because it afterward cools the stomach, Liver, &c.

Pulsation: beating of the Arteries, in any part of the Body.

Precede: go before.

Preparing of humors: is the qualifying of them, so as that they may be fit for expretion which preparation consists in separating them from the mass of good blood: in making them thick, if they be too thin and sharp: in cutting them and making them thin, if they be too thick and clammy.

Phlebotomy: blood-letting.

Preternatural: beside the intent or custom of Nature. vide Preternaturally.

Propriety: a pain by propriety, is when the cause of the Pain is in the part pained, so when the Head-ach comes from the Humors in the Head, it is called a pain by propriety; when it comes from Humors in the Stomach, or any other part that sends up vapors; it is called Head-ach by Content. And the like may be said of other Symptoms or accidents.

A *Pyramis*: is a Geometrical figure, broad and angular at the bottom, and growing less and less towards the top, till it come to a point. The Sepulchers of the Egyptian Kings were made in this form, and therefore called *Pyramides*. Naturalists do make use of this Figure to shew

how

how the Eye receives the representations of visible objects.

Pupil of the Eye: is the midlemost round circle, which we commonly call, *the sight of the Eye*, and which in Cats, is seen to widen and contract it self.

Pulse: Beans, Pease, Hastivers, French-pease, &c. called so, because they are gathered by pulling, and not by mowing down, as corn.

Probable: likely, possible.

Profound: deep.

Producing: breeding, causing.

Peccant Humor: the Humor offending, causing the Disease.

A *Phlegmon*: is an Inflamation or swelling caused by blood. If no other Humor be adjoyned, it is a true Phlegmon. If choller be joyned, it is called a *Phlegmon erisipelous*; if flegm, *œdematous*; if melancholly, *Scirrhous*.

Paroxysme: the fit of an Ague, of the Mother, or any Disease that comes by fits.

Perforated: bored through.

Putrid: rotten, filthy, stinking.

Pustula: a pustle, push, or whelk.

Ponderous: weighty.

Peristaltick motion of the Guts: is whereby the Guts do contract and purse themselves together above the excrements, and so squeez them out.

Pomum curtipendulum: an Apple so called.

Pubes: the hairy Hillock above the privities in men and women. The word signifies ripeness, because that hair being grown out, testifies the parties to be fit to engender.

Perineum: the space which runs like a ridge between the privities and fundament in men and women.

Præposterous: unnaturall, undue, unfitting.

Perturbation of the Eyes: a troubled, drousie, frighted look of the Eyes.

Procatarctick Causes: primarie, first working and occasional Causes. So in a Feaver, the next immediate Cause, is putrefied choller &c. but the first working & occasional causes, were the patients taking cold, by swimming in the cold water; whereby the pores became shut, and the Matter of the Disease was retained in the Body. So the Procatarctick Cause of worms in Children, is their greedy eating of Fruit; but the immediate Cause, is putrid humors occasioned by those Fruits; out of which humors the worms breed.

Precipitated: thrown head-long, forcibly cast down.

Palliative Cure: is when a Disease is not taken away, but only mitigated and made more mild, so that the patient may have as much ease as possible. Or if the Disease deform the Body, a palliative Cure, does hide as much as may be that deformity. So an Eye being thurst out, cannot be properly cured; but it may admit of a palliative cure, in asswaging the pain, and other Symptoms, and by putting into the place thereof a Glass or other Artificial Eye.

Potent: powerful.

Perspirable: the Body is said to be Perspirable, when the invisible Pores or holes in the skin, are kept open, so that the vapors arising from evil Humors may freely breath out. See Transpiration.

Pernicious; deadly, causing death, & destruction.

Protraction: is a lengthening out of a Disease and making the same to last long.

Pharmaceutick Remedies: whatsoever kind of Medicines are made by the Apothecary.

Præposterous: disorderly, undue, unfit, the Cart before the Horse.

Puitior.: See Matter.

R

Repletion. over much fulness of blood, or Humors.

Resolution, weakening or dissolving the strength of a part, as when it is palsyed &c.

Revulsion: drawing back of blood or Humors from the part affected.

Repelling: Medicines which draw back the humor from the part affected, Repellers, the same.

Relaxing: Slacking as the string of a bow when the bow is unbent, is said to be relaxed or slackned.

To *Revel*: to draw back Humors from the part diseased.

Remitted: lessened, abated.

Restriction: exception, limitation.

Ruption: breaking, or tearing asunder.

Reliques remainders of an Humor after Solemn purging, bleeding &c.

Retraction: drawing back.

Radical moisture: the fundamental juice of the Fundamental juice of the body, which nourishes and preserves the natural heat, as the oile in a lampe preserves and feeds the flame.

Revelled: drawen back, Revulsives, remedies to draw back the Humor from the Diseased part.

Repelled: driven away.

Retentive: faculty, the power in our body and its parts to hold fast its nutriment and what ever is agreeable thereunto.

Rough Arterie or *Aspera Arteria*, is the wind-pipe or Wesand, which is rough on the out side with circles and gristly rings.

Reduced brought bach againe.

Refractions: breaking of the Representations of visible objects. a terme used by the writers of Opticks, or the Art of seeing.

Recruted: repaired, restored, made up, a mi-

litary

litary term.
Resolving medicaments : are such as loosen and scatter evil humors which are gathered and combined together in some diseased part of the Body.
Repercussives : medicines which drive back the Humors from a diseased part.
Relaxation : loosenes.
Refrigerating : cooling.
Respiration : breathing.
Reflux : flowing back again.
Recipient part, is that part which receives the Humor offending.

S

Suppository : that which is put into the Fundament to cause solubleness.
Sudorosick : that is causing sweat.
Subeth a deep sleep.
Scarefication : is a cutting of the Skin that it may bleed into a Cupping-glass.
Superficies : the outside of any thing.
Stuphes : Stoves or Hot-Houses to sweat in.
Spiritus acousticos : is that portion of the spirit which in the Eares discerneth sounds.
Strangulation : choaking.
Sternon : the breast bone, See Veslingus Anatomie in English.
Sphinchter : is the Muscle of the Arse.
Stupor : dulness.
Spasmus : cramp or Convulsion.
A Scruple is twenty graines or the weight of so many barley cornes.
Sternutatories : medicines to snuf into the nose to provoke sneezing.
Stupefying : taking away the sence of feeling ; benumming.
Stupid : that is benummed, besotted, hath no feelling or sense, blockish.
Symptomes : evil dispositions of the Body which depend upon and accompany a disease ; as Heat, thirst, Headach, want of sleep, stomach-sickness, faintings, swoonings &c.
Sympathy : fellow-feeling, a disease is said to come by sympathy, when the principal cause is in some other part, with which the part offended hath a fellow-feeling. So paines of the Head caused by evil Humors in the stomach, are said to come by sympathy. And sickness of stomach caused by stone in the kidneys is a disease of the stomach by sympathy.
Nerves Sinnewes, certaine strings carrying the faculties of Motion and sence from the Braine into all parts of the Body see *Veslingus* Anatomie in English.
Scorbut : the Scurvie.
Steeled in which steel hath bin quenched or infused.
Scorbutick persons, that are troubled with the scurvy.
Spinal : of or belonging to the Back-bone.
Serous matter : wheyish, like whey.
Sutures : seams of the Head, where the parts of the skull are joined together.
Species of the Objects : representations of things seen. For the visible things themselves do not enter into the eyes, but certain images, and figures of them.
Situation place or posture.
Species retained in the Mind : the shapes and patterns of things seen or heard &c.
State of the disease : is when it is at the highest and does neither encrease nor decrease.
Saphena : A vein of the foot which is usually opened in woemen ; see Veslingus Anatomie in English.
Sal-prunella : salt-peter purified with Brimstone Clean white salt Peter is as good for use, only the Chymists love to mend *Magnificat* and many times take great pains to little purpose.
Sphacelus : deadnes of any part, when the flesh and bone are dead ; sphacelation signifies the same.
Superfluous : over much, unnecessary &c.
Speculum Oris : an Instrument wherewith the Mouth and throat is kept open, that the parts diseased may be seen and dealt with.
Scirrhus : an hard swelling without pain.
Suppurated : an Impostume is said to be suppurated, when it gathers matter & enclines to break.
Suppuration : a collection of matter in an impostume.
Suppression : stoppage.
Solution of continuitie : a dividing of such parts as were naturally united ; so every wound and Sore, is called a solution of continuity &c.
Stupes : tow or Cotton-wooll.
Sealed Earth : Terra Sigillata, it is a kind of Medicinal Earth brought out of the straights & sealed in little flatt cakes, to avoid Imposture the Seal is wont to be the great Turks badg viz. the half moon.
Sparadrap : a cerecloath.
Sediment : the settlings and dregs of Urine or any other liquor.
Suppression : stoppage.
Sincere excrements ; are such as are pure and unmixed, as choller alone &c.
Sudorificks : medicines causing Sweat.
Suffocating, choaking, Suffocation a choaking.
Subject ; a logical term, it signifies any thing that hath somwhat adjoined and annexed to it. So the Bodie is the subject of Sicknes & Health, of Beautie and deformity. The Head is the subject of paines, and other parts are the subject of other accidents. The Soul is the subject of vertues and Vices, of Happines and Misery &c.
Suffusion : a shedding abroad of Humors ; as when an Humor is shed abroad in the Eye and hinders the sight, it is called a suffusion.
A *Seton* is an Hole made in the skin and a skein

of Silke, or yarn, or such like drawn thorough, and kept in, in which being removed dayly causes the matter and humor to come away.

Sulphurus and *Bituminous bathes*: that is hot bathes like those of *Bath* in Summerset-shire, whose Heat and virtue springs from a tincture of Brimstone and Bitumen which they bring out of the Earth.

Suppuration: is when a swelling comes to gather Head, breed matter and is ready to break.

Specifick quality: a peculiar hidden propertie, not springing from the first qualities.

Similar Diseases: are such as befall the substance of the Body, not considered as formed into any organ or limb or part; and they are al kind of Distempers. Organick diseases are such as are proper to the organs and Instruments of the Body as such, viz. what ever mar their Fabrick. Common diseases are such as are liable both to the Similary and Organick parts viz. Solution of Unitie.

T

Tablets: are the same with Lozenges: they are Medicines made up in flat four squar'd Cakes with acured angles.

Torpor: numbness.

Transpiration: the passage of the vapours through the pores of the skin of the whol body invisibly, onely causing a smell according to the humors, in some more in some less, in some offensive in others not so.

Tumor: swelling.

Tincture: the virtue or strength of any thing drawn forth by steeping the same in spirit of wine, vinegar, or any percing liquor, the said Liquor containing the virtue and oftentimes the Colour of that which was steeped in it is called the tincture thereof.

Tile tree: a Linden tree there grow two on Newington green they bear sweet blossomes.

Trepan: an Instrument made to bore an hole in the skull.

Turgent: swelling, working, moving too and fro spoken of the Humors of the Body when they are in a Combustion, and full of motion.

Tacamahaca: A sweet Gumm. See the London *Dispensatory* in English.

Translation: carrying of an humor from one part to another.

Tunicles: little coats or skins of which the eye is partly made up. See the English Anatomy

Terminated: ended.

Topical Medicines: such as are outwardly applied to the part affected, or the part which sends the Humor &c.

Transparentnes: such a clearnes as is in Glass, Horn, the Ayr, Fair water, or any other thing which we can see through.

Troches or *Trochisces*, medicines made up in the form of little flat Bouls, whence they have their name.

Tunica retiformis: the net-like Coat or tunicle

Thorax: the Chest.

Trebble Quantity: thrice so much.

Tartarous matter: congealed hard matter like the hardned Lees of wine which are called Tartar.

Transpire: breath through.

V

Vertigo: a swimming in the Head.

Vesitatoryes: a Medicine applied to the skin to cause a Blyster.

Vertebræ: the turning bones of the whol back.

Ventricles of the Brain: certain hollownesses of the Brain.

Venenosity: poysonfulnes.

Vapors: Steams ascending into the Head, like the Steams we see mounting from a mess of hot Broth, or Meat, &c.

Vital function: faculty of the Heart causing Life, Pulse-beating, and Breathing.

Visive Nerve: the seeing Nerve. The Sinnew wherewith the Objects of sight are carried into the Brain, to the Imagination or Common-sence. See *Vesslingus* Anatomy.

Vaporous Matter: steeming, reaking matter. See Vapors.

Ulcerated: having an Ulcer or running sore.

Visor, or *Visive* Spirits: the Spirit wherewith we see.

Universal evacuation: is a general purging of the whol body, all at once.

Vitrous Humor: a moisture like to molten-Glass. which goes into the making up of the Eye. See *Vesslingus* Anatomy in English; and cut up an Eye of a Calf, Sheep, &c.

Uvea tunica: a coat of the Eye, resembling the skin of a Grape, from whence it is named. See *Vesslingus* Anatomy in English.

Voluntary faculty: that power of our Body which works according as we please; as the power of going, running, speaking, &c. whereas the powers of beating in the Pulse, of digesting in the Stomach, and Liver, of making blood, flesh, fat, &c. do not work according to our wills. The former we can exercise, or suspend, and moderate them as we please, but the latter not: which are therefore termed involuntary.

Uvula or *Columella*: the Pallate of the mouth.

A *Vehicle*: that which serves to carry.

Vermicular: Worm-like. The Pulse is so called, when it is weak, and lifts it self unequally, sometimes more, sometimes less; like the creeping of a Catterpillar.

Ureters: certain long pipes or passages, which bring the Urine from the Kidney to the Bladder. See *Vesslingus* Anatomy in English.

Viscous

Viscous, cleaving and roaping, like Birdlime.
Vicissitude, the following of one thing upon the neck of another.
Venery: Letchery, the immoderate exercise or doating upon such Acts as tend to Generation.

W

Wild-Poppies. Red-Poppies which grow among Corn, called likewise Corn-Rose.
Watry Humor: a certain liquor like water, which goes into the Composition of the Eye, See *Veslingus* Anatomy in English.
Water-Gate: the Privities in Women.

Z

Zacutus Lusitanus: a famous Physitian; A Jew that practiced at *Amsterdam* in *Holland*. He has wrote divers excellent Treaties of Physick, suitable to the Principles of *Hippocrates* and *Galen*.

FINIS.

The Vertues, Use, and variety of Operations of the True and Phylosophical
AURUM POTABILE, *Attained by the Studies of Doctor*
Freeman, *and Dr.* Culpeper, *and left with his Widdow, and administred by a Physitian in her House neer* London, *on the East side of Spittle-fields, next door to the red Lyon.*

The Vertues are as follow:

IT Cures all Agues, whether Quotidian, Tertian, or Quartan: as also it cured divers people of that most horrid putrid Feaver, which so violently seized on mens Bodies (both before and after *Michaelmas* 1653.) to the great admiration of many; and when the parties Diseased have ben both senceless and speechless, for that neither that, nor any other Medicine or *Panacea*, though never so gentle, could safely be administred into the Body, it hath beyond all hopes, by external application on the stomack revived them. It cures the Gout of all sorts perfectly being administred as the Physitian shal advise. It causeth Women subject to Abortion, or Miscarriage, to goe their time: and yet being given when the time comes it causeth a speedy and easie delivery. It is an infallible cure for the French Pox and doth it with such ease, speed, and Secretness, that none of the neareſt relation shal take notice thereof. It cures the Green-sickness and all sorts of Jaundice, It provokes the Terms. It is good for Aches and all afflictions coming of cold. It helps the Rickets. But to what purpose do I nominate diseases in particular, when it is an universall Remedy for all diseases being administred as the Physitian shal advise? For its chief aim is exhilarating the vital spirits and heart. It both binds and stops Fluxes, yet Purges; it both Vomits, and stays Vomiting; it causes Sweat, yet cures preternatural Sweatings, and performs all its operations as Nature it self would, have it, because it only fortifies her in her Centre.

To conclude, It is an Universal Fortification for all Complexions and ages, against all sorts and degrees of Pestilential and contagious Infection, both preventing before their possession, and extirpating of them after it.

READer, *By reason of the mistakes in the printing of this Book in Latin, there are two words mis-translated: And by reason of the foulness of the English Copy, there are some other mistakes in printing. All which are thus to be amended.*

PAge 24. *line* 46. *for* violent springing *read* violent Convulsion springing p. 32. *for* Ephor. *read* Escar p. 51. *l.* 39 *for* to *r.* do p. 53. *l.* 7. *for* procede *r.* preceed p. 59 *l.* 14 *r.* four ounces p. 116 *l.* 39 *for* pure *r.* impure p. 148 *l.* 28. *for* nevertheless get *r.* nevertheless the Lungs get p. 160 *l.* 12 *for* can endure *r.* cannot endure *l.* 23 *for* sets more *r.* feels more p. 167 *l.* 33 *for* blood *r.* blood-letting p. 184 *l.* 40 *for* Acorns *r.* Alkermes *l.* 45 *for* Acorns *r.* Alkermes p. 256 *l.* 47 *for* Gloves *r.* Cloves p. 259 *l.* 16 *for* primary, *r.* external p. 290 *l.* 34 *for* be thirst *r.* be no thirst p. 329 *l.* 7 *for* can pass *r.* cannot pass *l.* 10 *for* Wine *r.* Wind p. 332 *l.* 4 *for* Turnep Water *r.* Orange-flower Water p. 341 *l.* 44 *for* after dinner *r.* before dinner p. 367 *l.* 9 *for* scattering *r.* scalding p. 373 *l.* 40 *for* bred *r.* cured p. 378 *l.* 17 *for* warm *r.* worn p. 386 *l.* 51 *for* spring Water four ounces *r.* spring Water four pound p. 428 *l.* 32 *for* Turnep Water *r.* Orange-flower Water p. 432 *l.* 29 *for* suppression *r.* suppuration p. 499 *l.* 18 *for* decreale *r.* encrease p. 501 *l.* 11 *for* contained *r.* continued p. 542 *l.* 52 *and* 33 *these words* [the Moon] *at the end of the* 53 *line, must be taken from that line, and read at the end of the* 52 *line* p. 567 *for* great *r.* grate p. 580 *l.* 42 *for* but *r.* both p. 590 *l.* 40 *for* be *r.* being p. 612 *l.* 10 *for* puortfied *r.* putrefied p. 615 *l.* 18 *for* in *r.* no p. 622 *l.* 11 *for* terror *r.* Feaver *for* whereas *r.* whenas p. 624 *l.* 15 *for* Urine *r.* things p. 630 *l.* 50 *for* Italy *r.* India p. 633 *l.* 11 *for* care *r.* cure *and for* cure *r.* care *and l.* 46. *for* repelling no *r* no repelling *and l.* 57. *for* after aforesaid *r* aforesaid after p. 639 *l.* 26. *for* Hair *r.* Heart

